



**GENERAL INVESTMENT DIVISION
PROCUREMENT & INVESTMENT DIVISION**

TED 086/2022

OPEN CALL FOR TENDER

FOR THE SUPPLY, INSTALLATION AND DELIVERY IN FULL OPERATION OF THREE HUNDRED (300) LED STREET LIGHT LUMINAIRES AROUND THIRTY-THREE (33) BUILDINGS OF ThPA SA AND THE EXTENSION AND CONFIGURATION OF THE EXISTING ELECTRIC LIGHTING REMOTE MANAGEMENT SYSTEM

TENDER PROCEDURE SUMMARY DATA

OPEN TENDER	
ECONOMIC OPERATOR	THESSALONIKI PORT AUTHORITY SA Main activity: Port services Address: Inside the Port of Thessaloniki PC 54625, Thessaloniki Tel.: 2310593121, Fax: 2310510500 Email: secretariat@thpa.gr Website address: http://www.thpa.gr
Closing Date for the Submission of Tenders	02/09/2022
Closing Date for Requests for Clarifications	29/08/2022
Award Criterion	Most advantageous tender based on price and quality criteria
Contact person for information/clarifications	On the tender procedure Name: George Papageorgiou Email: gpapageorgiou@thpa.gr Tel.: +30 2310593305 Name: George Georgiadis Email: ggeorgiadis@thpa.gr Tel.: +30 2310593352 On technical issues Name: George Georgiadis Email: ggeorgiadis@thpa.gr Tel.: +30 2310593352 Name: Zacharias Pantelidis Email: zpantelidis@thpa.gr Tel.: +30 2310593351 Name: George Papageorgiou Email: gpapageorgiou@thpa.gr Tel.: +30 2310593305

PART A: GENERAL & SPECIFIC TERMS

ARTICLE 1 - Description of the Contract Object

1.1. Object

The object of this tender is the supply, transport, installation and delivery in full operation of three hundred (300) street luminaires made of die-casted aluminium, with light emitting diode (LED) technology light sources, around thirty-three (33) buildings within the Port, and the extension and configuration of the existing electric lighting remote management system, in order to achieve the adequate lighting to the outdoor areas of ThPA SA while saving energy by replacing the old energy-intensive luminaires.

The object of this Contract is broken down as follows:

Part 1. Supply of Luminaires

It consists of the supply of luminaires (full), their transport to the installation site, the power cables of the luminaires and their connection and the suspension arms.

Part 2. Installation of Luminaires

It consists of the dismantling of existing old luminaires, the installation of luminaires according to the relevant phototechnical study, the connection of the power cables, the tests of good operation and the measurement of the phototechnical characteristics of the installation provided for in Circular 22/ΔΙΠΑΔ/οικ/1322, Annex 2, as amended.

Part 3. Extension of the Remote Management System

It includes a) the supply, installation and planning of lighting controllers and energy meters per building b) the supply and installation of telecommunications equipment that will be indicated on a case-by-case basis by the implementation study for each building separately, for connection to the mobile telephony network or to the local network of ThPA SA (wired or wireless) c) the programming of the central server d) the extension of the existing management software and the creation of an additional and separate visualization section for buildings.

Part 4. Installation of electrical infrastructure

It includes the supply and installation of all electrical equipment (boards, relays, cables, etc.) required for the installation of luminaires, the components of the remote management system, the connection of electrical boards and the harmonization of the installation with the ELOT60364:2020 standard.

1.2. Award Criterion

The criterion for awarding the procurement is the most technico-economically advantageous tender, based on the best value for money, calculated based on the price and the following criteria:

1. Technical characteristics - compliance with technical specifications
2. Lifetime of LED luminaires.
3. Project completion time.
4. Good performance guarantee time
5. Aftersales service

ARTICLE 2 - Eligibility - Quality Selection Criteria

2.1 Eligible participants

2.1.1. Participation in the tender procedure shall be open to natural or legal persons and, in the case of associations of economic operators, their members with a professional activity related to the object of this call, i.e. production or/and trade of lighting equipment.

2.1.2. Participants shall:

- Not be in a state of bankruptcy, liquidation or compulsory receivership.
- Not have been irrevocably convicted (the administrators for the case of limited partnerships, limited liability companies, private companies-IKE, the Chairman and the CEO for the case of SAs and the natural persons performing management duties in other cases for:
 - a) participation in a criminal organization, pursuant to article 2(1) of Joint Action of No. 98/733/JHA of the Council of the European Union;

- b) bribery, as defined in Article 3 of the Council Act of 26 May 1997(21) and Article 3(1) of the Joint Action No. 98/742/CFSP of the Council;
- c) fraud within the meaning of Article 1 of the Convention relating to the protection of the financial interests of the European Communities;
- d) Money laundering, as defined in Article 1 of Council Directive No. 91/308/EEC, on the prevention of the use of the financial system for the purpose of money laundering.
- e) embezzlement (375 P.C.),
- f) fraud (386-388 P.C.),
- g) extortion (article 385, P.C.)
- h) forgery (art. 216- 218 P.C.),
- i) perjury (224 P.C),
- j) bribery (235- 237 P.C.),
- k) fraudulent bankruptcy (art. 398 P.C.).

In case the interested Economic Operators participate as an association or consortium, the above requirements shall be met by all members of the consortium.

In case of an Association or a Consortium, all members shall be jointly and severally liable to the contracting entity.

2.1.3. The associations of economic operators, including any temporary partnerships are not required to have a specific legal form for bidding. The selected Consortium or Association of Suppliers may be required to have a specific legal form insofar as the inclusion of such a legal form is necessary for the proper performance of the contract.

2.1.4. In the case of a tender by an association of economic operators, all its members are jointly and severally liable to the contracting entity.

2.2 Qualitative Selection Criteria - Quality Assurance Standards

2.2.1. The manufacturer of the luminaires offered must comply with the certificates CE, RoHS, EMC, LVD, ENEC, ENEC+ for the design, manufacture and marketing of luminaires.

2.2.2. Participants must comply with the quality assurance standards of the series ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 and ISO 50001:2018 or other equivalent by internationally recognized entities for an object related to the object of the tender.

In cases of company partnerships, company associations or consortia, it suffices that one member fulfils the criteria of paragraph 2.2

2.3 Technical and professional competence

Participants must meet cumulatively the following minimum requirements of technical and professional capacity:

- ✓ They must be the manufacturers or the official representatives of the manufacturing houses of the luminaires they offer or have the assurance of the manufacturing company that it will cover any failure that may arise during the guarantee period of the luminaires directly to ThPA SA.
- ✓ They must participate in an approved alternative WEEE (waste electrical and electronic equipment) management system.
- ✓ They must be registered in the National Producers Registry (EMPA) of the National Recycling Organization (EOAN), with a Producer Registry Number (AMP) by a system approved by the Ministry.
- ✓ They must have the know-how and experience in the performance of similar contracts and be able to document it adequately and in particular, they must have experience in the provision of supply and installation of similar systems.
- ✓ They must make available to the project team an Electrical Engineer with the corresponding License by the Technical Chamber of Greece, with proven experience in the execution of relevant external LED lighting projects (luminaires or lamps).

ARTICLE 3 – Clarifications on the Call of Tender

Requests for clarifications are submitted electronically to the Procurement Department of ThPA SA at the following e-mail address ggeorgiadis@thpa.gr with a copy to gpapageorgiou@thpa.gr no later than five (5) working days before the closing date for submitting tenders. Clarification requests submitted in other forms will not be examined.

The clarifications are posted electronically on the website of ThPA SA www.thpa.gr.

ARTICLE 4 - Tender submission modalities & time

Economic operators shall submit and deliver their tender, during working days and hours, no later than 02/09/2022 at 15:00, to the following address:

Tender submission/dispatch address:

Thessaloniki Port Authority, SA
Administration Division – Secretariat
Department Technical Services Building (in
port) PC 54012 Thessaloniki

a) financial offers in Greek, not subject to any term, requirement, condition or reservation

After the expiry of the closing date and time, it will not be possible to submit tenders. Tenders submitted late shall be returned.

b) samples of the offered items and ONLY street lighting luminaires (1 sample from each type of luminaire).

ARTICLE 5 - Extension, amendment, addition or cancellation of the tender procedure

ThPA SA without liability, penalty or compensation of any kind, reserves the right to amend or cancel the tender in accordance with the provisions of the Procurement Regulation.

ARTICLE 6 – Tender Validity Period

Tenders submitted shall be valid and binding for the participants for a period of **one hundred-twenty (120) days** from the expiry of the deadline for their submission.

The tender validity may be extended, if requested by ThPA SA before it expires, for not more than a period equal to the original tender validity period set out in the Call.

ARTICLE 7 - Content of Tenders

The tender details are defined as follows:

- (a) Participation documents
- (b) Technical Offer
- (c) Financial Offer
- (d) An electronic data storage device (usb) with the contents of the above points a,b,c

ARTICLE 8 – Participation Documents

To prove that they fulfil the selection criteria, economic operators shall submit the following supporting documents:

- In order to prove professional capacity, a certificate of registration in the relevant Chamber is submitted.
- In order to prove compliance with the quality assurance standards, the following shall be submitted:
 - A) CE, RoHS, EMC, LVD, ENEC, ENEC+ Certificates of the manufacturer for the “design, manufacture and trade of luminaires” or other equivalent issued by a recognized Institute or Organization established in an EU Member State, or other evidence of equivalent quality assurance measures bearing the name or distinctive title of the manufacturer;

B) Quality Assurance Certificates ISO 9001:2015, ISO 14001:2015 ISO 45001:2018 and ISO 50001:2018 or other equivalent of the participant, issued by a recognised Institute or Agency established in a Member State of the European Union, or other evidence of equivalent quality assurance measures, bearing the name or distinctive title of the participant in the tender for an object related to the object of the tender.

- To prove their technical and professional ability, they shall produce the following:
 - A) Attestation of the manufacturing company that they are official representatives of the offered items in Greece or attestation that the manufacturing company will pay any failure that may arise at the time of the guarantee of the luminaires directly to ThPA SA. If they are the manufacturers, a solemn statement accompanied by a valid certificate from the relevant Chamber.
 - B) A certificate of registration in an approved recycling system for waste electrical and electronic equipment (WEEE).
 - C) A certificate of registration in the National Producers Registry (EMPA) of the National Recycling Organization, with a Producer Registry Number (AMP) by a system approved by the Ministry.
- To prove their lawful incorporation and representation, the corresponding legal establishment and lawful representation documents are submitted (such as articles of incorporation, GEMI certificate, Board of Directors formal establishment in the case of SA, etc., published on the GEMI depending on the legal status of the tenderer). The above documents must establish the lawful establishment, the person(s) legally binding the company on the date of the tender (legal representative, right of signature, etc.), any third parties that have been granted the power of representation, and their term of office

The economic operator associations submitting a joint tender, the above referenced supporting documents, as the case may be, for each economic operator participating in the association.

- A Solemn Statement stating that the terms of this call are fully and unconditionally accepted.
- In case an economic operator wishes to rely on the capacities of other entities to prove that he has the necessary resources, he shall in particular provide a written commitment of those entities to that end.
- Table of related projects of the last three years (2019, 2020, 2021).
- The Electrical Engineer who is part of the project team shall have a professional license by the Technical Chamber of Greece (TEE) and a list of related external lighting projects (luminaires or lamps) of last three years technology (2019, 2020, 2021).
- Information document for the processing of personal data, in accordance with Article 13 of GDPR 679/2016, signed by the Candidate or, in the case of submission of a tender by an association of economic operators, by any economic operator participating in the association.

If a foreign economic operator participates in the tender procedure, the competent bodies and authorities of its country of establishment should provide equivalent documents to the abovementioned ones.

ARTICLE - 9 Technical Offer

The Technical Offer shall necessarily include a full and binding technical description of the equipment.

Also, it shall be accompanied by the following documents:

- (a) A Technical offer table, according to the following template:

(a)

Technical Offer Table						
S/N	Code No.	MEASUREMENT	Quantity	Manufacturer	Type/Model	Manufacturer Of luminaire

		UNIT				/ Place of Installation

- (b) A Compliance Table in accordance with the model attached (Annex C) duly signed by the authorized representative of the participating economic operator.
- (c) The IES files of the LED luminaires/floodlights
- (d) Light diffusion charts
- (e) Special phototechnical study using the free software DIALUX, signed by an Electrical Engineer, which will be compliant in each area with the specifications of the required minimum illuminance levels, as set out in Article 6 of the technical terms.
- (f) Test report of the light emitting diodes manufacturer for their certification as per LM80.
- (g) After-sales service and technical assistance certificate from the equipment supplier and manufacturer
- (h) a CE Declaration of conformity, which shall bear the name of the manufacturer of the finished product or its authorised representative, who shall be solely responsible for the movement of the products within the EU market in accordance with EMC 2014/30/EU & LVD 2014/35/EU so as to fully ensure their safe operation and compliance with the following EU safe operation standards: EN 55015, EN 65547, EN 61000-32, EN 6100-3-3, EN 60598-1, EN 62471.
- (i) a declaration by the manufacturer of the final products offered certifying that they comply with the RoHS requirements.
- (j) Certificate of conformity of the tendered luminaires according to ENEC.
- (k) Certificate of conformity of the tendered luminaires according to ENEC+.
- (l) Manuals and all technical brochures necessary for the evaluation of the tender.
- (m) An official list (prospectus) of the participant which will prove that the offered type of luminaire / projector is included in its list and is one of the main types of its activity and will be published on the official website of the bidding company, so the ThPA SA can easily ascertain its authenticity.
- (n) Information note of the tenderer regarding its premises and its permanent staff or associates.
- (o) Solemn statement of Law 1599/1986 whereby the participant will declare that he will provide spare parts for at least five (5) years from the date of expiry of the warranty period.
- (o) Solemn statement of Law 1599/1986 appointing the Safety Engineer of the project.
- (q) Phototechnical analysis, i.e. the number of luminaires defined for each building in accordance with the tender notice and the attached sketch of buildings. (Annex IV)

ARTICLE 10 – Financial Offer

The financial offer shall be formulated in accordance with the model attached (Annex B') and, in addition to the offered price, it shall include:

- a) the time of tender validity, in accordance with article 6 of the Call.
- b) the delivery time, in accordance with the provisions of article 15.4 hereof
- c) the guarantee time, in accordance with the provisions of article 15.6.1 hereof.
- d) will bear the signature of the legally authorized representative of the participating economic operator.
- e) a detailed project implementation timetable.

ARTICLE 11 - Language

The official language of the process is Greek and English. All tender details will be in Greek or in English or else they (if drafted in another language) will be accompanied by a translation into one of the above languages. In case of disagreement, the prevailing wording shall always be the translation into one of the official languages of the tender process.

ARTICLE 12– Opening and Evaluation of Tenders

The opening of tenders and samples will take place without the presence of participants.

During the evaluation, ThPA SA may address requests for clarification to the participating economic operators, who shall provide such clarifications within the specified deadlines, as the case may be.

Article 13 - Award criteria

The award criterion of the supply is the most economically advantageous bid based on the best value for money, estimated on the basis of the price and the following criteria.

CRITERION K1– Compliance with the technical specifications: The first scoring criterion is compliance of the offered luminaires with the technical specifications of this tender, as detailed in Part B - Technical Specifications. Participants whose offered items fully comply with the technical specifications will receive the maximum score (120). This criterion has an importance coefficient of 30%.

Criterion K2 – Lifetime of LED luminaires: The second scoring criterion is the lifetime of LED luminaires. The lifetime must be proven by the manufacturer's warranty to the final manufacturer of the luminaires (if they are different companies). Therefore, and in order for the candidate contractor to be rated for this criterion, he must provide a clear guarantee for the lifetime of the LED light points provided by his supplier. The warranty must be proven beyond dispute and be clearly different from the warranty of the luminaire. The minimum LED warranty is set to 90,000 hours. Candidate contractors shall declare the corresponding warranty they provide. The participant with the longest LED warranty period will obtain the highest score (120). All participants who offer a delivery time equal to the minimum time required by the tender (90.000 hours) will receive the lowest score (100). Any participants with intermediate lifetime of LED luminaires will receive a score corresponding proportionally to the highest and lowest scores compared to the offered time intervals, with linear scale. This criterion has an importance coefficient of 20%.

Criterion K3 – Time of completion of procurement and installation The third scoring criterion is the time for completion of the supply and installation of the luminaires. The maximum time for the completion of the supply and installation of the luminaires is set in the requirements of the current tender process. If any of the participants in the tender offers a time less than the maximum set, then he/she will receive an additional score on this criterion. Specifically, the participant with the shortest time to complete the supply and installation of the luminaires will receive the highest score (120). Participants offering a delivery time equal to the minimum time required in the tender process will receive the lowest score (100). Any participants with delivery times between the minimum and the maximum will receive a score that corresponds proportionally to the maximum and minimum scores compared to the time intervals offered, with a linear gradation. This criterion has an importance coefficient of 15%.

Criterion K4 – Performance guarantee time The minimum performance guarantee period for the luminaires is set at five (5) years. The performance guarantee refers to the operation or shutdown of the luminaire. The performance guarantee includes the replacement and installation of a new luminaire. If any of the participants in the tender process offer a longer performance guarantee time than the minimum required, he will receive extra scoring in this criterion. Specifically, participants with the longest performance guarantee time will receive the highest score (120). Participants offering a performance guarantee time equal to the minimum required in the tender (5 years) will receive the lowest score (100). Any participants with performance guarantee times between the maximum and the minimum will receive a score corresponding proportionally to the highest and lowest score compared to the offered time periods, with linear grading. This criterion has an importance coefficient of 15%.

Criterion K5 – Aftersales support: The after-sales support is related to the response and replacement time of the luminaire in cases where it has been damaged and does not provide lighting, with the possibility of replacing it by the same or similar luminaire of similar specifications at that time, the possibility of providing spare parts in cases of damage for which ThPA SA is responsible for replacement, etc. In order to establish the possibility of providing reliable technical support, consideration will be given to parameters such as the location of the production unit, the proven availability of luminaires and spare parts in warehouses (e.g., records of the stock record system at the date of tender submission or even a month prior to this date), the

ability to find spare parts over a ten-year period. The bidder who will be rated as the most reliable option will receive the highest score (120), while the lowest score will be awarded to the bidders who cannot document the above. This criterion has an importance coefficient of 20%.

The weighted score for each criterion will be derived from the product of the individual weighting coefficient on its score and the total tender score will be derived from the sum of the weighted scores of all the criteria. The most economically advantageous bid is the one that presents the smallest ratio of the offered price to its score (i.e., where L is the smallest number) according to the formula below.

$$L = \frac{\text{Tender price}}{\text{Final score of technical offer}}$$

ARTICLE 14 - Contract – Amendments

After the announcement of the outcome of the tender process, a contract is signed between ThPA SA and the contractor.

The contract may be amended during its term of validity not requiring a new contract but only after an agreement between the two parties.

ARTICLE 15 – Special Conditions For the Performance of the Procurement

15.1 Performance Guarantee

For the signing of the contract, the contractor is required to submit a Performance Guarantee, the amount of which is set at a rate of up to five percent (5%) of the value of the contract, excluding VAT and the contractor shall submit it before or at the signing of the contract.

The Performance Guarantee shall be forfeited in the case where the terms of the contract are violated, as specifically defined.

The Performance Guarantee shall cover entirely and without exceptions the implementation of all contract terms and any claim of ThPA SA against the supplier.

15.2. Funding - Payment method

The procurement is financed from the regular budget of ThPA SA

The payment of the Contractor will be made, against the issuance of an invoice, in three (3) instalments and the delivery in full operation of the luminaires of each building as well as the Electric Lighting Management System, as follows:

Instalment	Deliverable	Type of audit	Percentage of payment
1st instalment payment	Supply of 300 street luminaires and remote management equipment (controllers, meters, antennas)	Quantitative and qualitative control of luminaires and remote management equipment	50%
2nd instalment payment	Installation and full operation of street lighting luminaires and remote management equipment	Photometry to verify the requested minimum requirements	30%
3rd instalment payment	Extension, configuration and full operation of the existing Electric Lighting Management System	Check of the full operation of the System	20%

15.3. Price adjustment

The offered prices are considered **fixed and final** and are not subject to adjustment for any reason and cause until the end of the procurement given the current conditions caused by the pandemic.

For this reason, by signing this contract the Contractor explicitly, unreservedly and irrevocably waives all its rights with regard to any adjustment of the offered prices that might arise from other relevant provisions.

ThPA is entitled, based on the constantly changing needs of the company and after informing the contractor in a timely manner, to adjust the quantities of materials and works within the framework of the project and to add new works and materials not included in the Contractor's offer, provided that the above changes will not result in the total contractual price exceeding 25%. The Contractor's payment for the new works or additional materials not included in the tender will be calculated based on the Contractor's offer unit prices. The Contractor does not have the right to increase the unit prices included in its tender or request other benefits from ThPA SA

15.4. Delivery & Installation Time

The total delivery time of the entire project in full operation will be set by the participants in their tender and shall not exceed four (4) months from the date of the signing of the relevant contract. The project at the premises of ThPA SA will be carried out by the Contractor on working days and hours to be agreed jointly between the Contractor and ThPA SA.

The Project Monitoring and Acceptance Committee, for any technical issue that arises during the execution of the supply, will contact the Contractor's Technician who is responsible according to the Law.

In case of late delivery, a fine of 1% of the contract value will be imposed, for each week of delay, with a maximum of 5%.

15.5. Receipt - Tests

The Contractor will carry out in the presence of the committee, a photometry and photometric study with the results of the measurements, in order to verify that the minimum requirements are met. (par. 6, Part B of the Technical Conditions).

Deliverables will be received in 3 different phases after the following checks and tests:

- Phase 1: upon receipt of the items of all equipment, i.e. luminaires and remote management equipment, a quantitative and qualitative check of physical characteristics (any damaged, etc.) will be carried out.
- Phase 2: Upon completion of the installation of luminaires in all buildings, a general inspection of the installation and locking of the luminaires as well as a photometry with the results of the measurements will be carried out in order to verify that the minimum requirements are met.
- Phase 3: Upon completion of the extension, configuration and full operation of the existing Electric Lighting Management System a check of the full operation of the System will be carried out.

The above tests will be carried out at the contractor's risk and expense.

Any instruments that will be required to carry out the measurements during installation will be provided by the contractor, but the final photometric measurements on which the photometric study will be based will be made by the instrument - Lux meter belonging to ThPA SA to avoid any deviations.

After the successful completion of the tests and trials in each phase without remarks, the competent body of ThPA SA will proceed with the drafting of the relevant provisional Acceptance Protocols and a final Protocol after the general final trial.

15.6. Good performance guarantee

15.6.1 Performance guarantee period

The minimum acceptable time of guaranteed proper operation is five (5) years starting on the date of signature of the receipt protocol. During the guarantee period, the contractor is responsible for the proper operation of the luminaires and shall restore any damage or malfunction resulting from a defective construction or a defective material.

In case of replacement of the luminaire or the system, the warranty period will be extended respectively, for the non-operation period of the luminaire or the system respectively.

15.6.2 Performance Guarantee

After the completion of the project, a Performance Guarantee is submitted, the amount of which is set at a rate of up to five per cent (5%) of the value of the contract, excluding VAT, with a maturity of sixty (60) days after the end of the period of guarantee. The Performance Guarantee will be returned after the end of the good performance guarantee time.

In the event of non-compliance of the Contractor with its contractual obligations, the committee proposes to the Competent Body of ThPA SA the total or partial forfeiture of the Letter of Guarantee.

15.7. Rejection - Replacement

In the event of a final rejection of all or part of the supply, the competent body may decide, following the

opinion of the Committee, to authorise its replacement by another one, which is in accordance with the terms of the contract, within an explicit deadline laid down in that decision.

If the replacement is made after the expiry of the contractual time, the deadline set for the replacement may not be more than 1/2 of the total contractual time and the contractor is considered to be overdue and subject to penalties due to late delivery.

If the contractor fails to replace the part of the rejected supply within the time limit set and if the contractual time has expired, he shall be declared forfeited and subject to the legal penalties.

ARTICLE 16 - Obligations of the Contractor

1. The Contractor is obliged with his own certified workshop (safety engineer, electricians, support staff, and all the necessary tools needed for this purpose) to disconnect from the network, uninstall the existing luminaires and deliver installed and in full operation the new luminaires.
2. The Contractor's obligations also include:
 - I. The transport of the new luminaires at ThPA SA facilities
 - II. The dismantling of the existing luminaires and related materials (lightbulb, socket, ballast, capacitors, floodlight) and their delivery to a place indicated by ThPA.
3. In addition, the contractor is obliged to submit a table completed with the number of new luminaires per building.
4. During the guarantee period, the Contractor is responsible for every defect, failure or unjustified damage to the installation.

During the guaranteed good operation time, the Contractor will provide free of charge the following:

- I. The replacement of any material that presents manufacturing problems throughout the entire warranty period.
 - II. The provision of technical support throughout the guarantee period to resolve any problems by telephone, e-mail and if necessary with his physical presence on site.
5. The response time of the Contractor in case of failure must be:
 - I. Within 48 hours from failure of event notification, for notifications made from Monday to Friday, on working days and from 08:00 to 17:00 or
 - II. Within 48 hours from the morning (08:00 a.m.) of the following working day for notifications made outside the above days and hours.
 6. In any case, 48 hours after the failure event notification and, provided that the operation of the unit has not been restored, the supplier shall replace it with another identical normally operating unit and install the respective management software if necessary.
 7. The Contractor shall bear the costs of travel or shipment of equipment, throughout the good performance guarantee period.
 8. The technical bid folder of the bidders shall include:
 1. A technical description (in Greek or English) that will refer to and respond to each paragraph of the technical terms of Part B of the Call, in detail and clearly, in the same order in which they (technical terms) are set out therein.
 2. Information brochures of the manufacturers of offered items, regarding their organization and infrastructure.
 3. General drawings and technical specifications of the offered devices and luminaires in Greek or in English.

Regarding the technical and professional ability -experience for the procurement procedure, the economic operators must submit a list of works (reference list) similar to the tendered procurement (i.e. supply, installation and delivery in full operation of luminaires in similar or equivalent installations), that they completed or in which they participated as a member of an association, over the last three (3) years. In order to prove the above professional experience, the economic operator participating in the tender must, under penalty of exclusion, submit the appropriate certificates of good performance.

Regarding the experience of the Electrical Engineer of the project team in the execution of related external LED lighting projects (luminaires or lamps), the economic operators must submit a list of corresponding

projects (reference list) that the Electrical Engineer of the team completed or participated in, during the last three (3) years. In order to prove the above professional experience, the economic operator participating in the tender must, under penalty of exclusion, submit the appropriate certificates of good performance.

It is clarified that with the above detailed technical description, the participating economic operator shall inform under penalty of exclusion, ThPA SA of the origin of all offered materials, detailing the types and manufacturing companies along with appropriate brochures (prospectus) that will present all the technical characteristics of these materials, in order to have his offer inspected by the competent Tender Committee.

9. Upon signing the Contract, the Contractor is obliged to submit to ThPA SA statement whereby he will name his legally responsible Engineer for the entire duration of the project, who will bear the whole responsibility of monitoring and supervising each construction, connection and link. The statement must be co-signed by the designated Engineer to confirm that he accepts the assignment. Moreover, he shall sign the special form of the ThPA regarding the operation of the construction site of the port. Throughout the performance of the project and until its acceptance by ThPA SA, the Contractor and his supervising Engineer shall take all necessary measures for their staff and third parties at the installation site. In addition, all the technical staff of the Contractor will hold the appropriate professional licenses for electrical work, which will be available upon request to ThPA SA.

The project monitoring and acceptance Committee will address to the above Engineer of the Contractor for any technical issue that may arise during the performance of the project.

10. The new equipment will be installed in an area located within the customs controlled area of the port of Thessaloniki and therefore the Contractor must be aware of and comply with all the rules of this special regime. Also, during the performance of the project, the Contractor must comply with all customs provisions regarding the import and export of tools and machinery from the port.

11. All works will be performed in accordance with the provisions of Greek and European regulations governing such constructions.

After the end of the works and the completion of the project, the Contractor will furnish an ELECTRICAL WORK GOOD PERFORMANCE SOLEMN STATEMENT ("YDKE"), as provided for (in par. 3, Article 1 2, Presidential Decree 1 08/1 2-6-201 3 (GG A' 1 41 /201 3).

During the execution of the works, the Contractor shall apply all security measures provided for by the relevant legislation.

In addition, the Contractor bears full and exclusive responsibility for the suitability, legal provision of work and residence in the country of the persons employed in the project undertaken.

12. The Contractor's employees will wear the Personal Protective Equipment (PPE) at all times and will faithfully follow the signage in the indoor and outdoor areas of ThPA SA.

13. The Contractor shall place the appropriate warning signs for the risks arising from the performance the project.

14. The Contractor bears full and exclusive civil and criminal liability for any accident or damage caused to ThPA SA, his staff or the staff of ThPA SA or to any third party, during the performance of the project or in relation to it, due to his own actions or actions of his staff that will be employed during the performance of the works until the end of the Contract. If an accident occurs, the Contractor will make all required notices.

15. The Contractor undertakes to comply with the legal provisions and the technical and scientific rules in matters of health and safety in the workplace, for all involved or not employees, including those indicatively listed in the guide to health and safety at work of ThPA SA, which he took note of.

16. ThPA SA is not liable for any loss of materials, components, machinery and tools of the Contractor, who must ensure their adequate and effective storage.

17. The Contractor bears all the responsibilities of the employer for his staff, namely payroll and contributions in favor of the main and supplementary insurance funds.

18. At the request of the Contractor, ThPA SA will supply to him three-phase current 380V, free of charge.

19. Candidates are required to include a Health and Safety Plan and a Health and Safety File in their tender for the project in question.

20. When signing the contract, the Contractor must also deliver the following:

- The Contractor Safety Declaration of ThPA duly signed – Annex Z.
 - List of employees to be employed in the project.
 - Copies of licenses and certificates of the project machinery that will be used.
 - Marketing authorization
 - Insurance policy
 - Lifting control certificates.
 - Copies of licenses of all technicians who will be employed in the project depending on their specialties.
 - Project machinery operators
 - Electricians
 - Welders
 - Contact details of the Contractor's Safety Officer and Technician.
21. From the beginning of the project, the Contractor must have the following:
- Safety Technician's Book of Instructions.
 - Occupational Physician's Book of Instructions for any business employing more than 50 people nationwide.
 - Accident book.

ARTICLE 18 - Other Information

Those interested in the preparation of their tender, if they wish, can visit the premises of the Port of Thessaloniki, where the equipment that is the subject hereof will be installed and connected, in order to get a direct view of the required specifications and works.

Any interested party, during the inspection of the premises, must request from ThPA SA to turn on their lighting, to get a full picture of their state.

The competent staff of ThPA SA will provide any necessary information or assistance.

PART B: TECHNICAL TERMS

This technical specification concerns the supply, transportation, installation and delivery in full operation of three hundred (300) street light luminaires made of die-casted aluminium, with light emitting diode (LED) technology light sources, around thirty-two (32) buildings within the Port.

All luminaires that will be provided to ThPA SA by the supplier must be new, unused, free of defects and meet all the terms of the Call and its annexes, which determine the type, maximum electrical power, their technical characteristics, the markings and certifications that they must bear. All supplies must comply with the European standards of quality and safety and the EU regulations for accident prevention and environmental protection. In addition, the supplies must have all necessary mechanisms and labelling to prevent accidents and injuries that could result from wrong handling or unexpected damage, as well as be of state-of-the-art technology to ensure their comfortable, safe and hygienic use by workers.

TECHNICAL SPECIFICATIONS

A. LED LIGHTING LUMINAIRES, according to the following Table of Basic Elements per Type of Luminaire

TYPE	MAXIMUM OVERALL POWER (W)	MINIMUM ENERGY EFFICIENCY (lm/W)	MINIMUM NET LUMEN (lumen)	MAXIMUM NUMBER OF LEDs (pcs)	COLOR TEMPERATURE ($\pm 10\%$)
Φ1	45	110	4,950	25	4000K
Φ2	65	110	7,150	35	4000K
Φ3	85	110	9,350	42	4000K
Φ4	135	110	14,850	45	4000K

LED Street Lighting Luminaires (Φ1, Φ2, Φ3, Φ4)

The above Types shall meet the elements of the above Key Elements Table and the following General and Specific Requirements.

General requirements

The per-Type LED Street Light Luminaire, with an appropriate lighting beam consisting of the following parts:

- The fitting
- The power supply (Driver)
- The optical unit
- The optical unit protective cover

The per-Type LED Street Lighting Luminaire offered shall:

- be fully suitable for outdoor lighting (streets, squares, etc.).
- be equipped with a system of protection against voltage fluctuations and peak currents up to 10 kV, either integrated into its power supply, or with an appropriate SPD which may be internal (in-shell) or external (terminal).
- meet all the following requirements and specifications without exception, as they are all essential and important. Failure to comply with any of the following requirements and specifications will result in the exclusion of the tenderer.

The per-Type LED Street Light Luminaire offered must have the following Certificates (Product – Manufacturer): E, RoHS, EMC, LVD, ENEC, ENEC+, ISO 9001:2015, ISO 14001:2015, ISO 18001:2007, ISO 50001:2018

Specific Requirements

1. Luminaire fitting

- 1.1. The luminaire should be made entirely of high thermal conductivity and fully recyclable die-casted aluminium.
- 1.2. The luminaire should consist of two parts for thermal isolation and easy maintenance. One is the part of the optical unit and the other is the part of the electrical parts which has a protective cap fixed with stainless steel screws (inox). The shell as well as the protective cap should be painted with a special electrostatic paint that makes them particularly resistant to corrosion, in colors chosen by the contracting authority (all colors of the RAL palette should be available).
- 1.3. The luminaire should have a shape and dimensions in order to be in harmony with the urban environment and have reduced wind resistance.
- 1.4. For optimal heat release, (produced by LED units) the LED units should be fitted directly to a special device that favours natural heat release (cooling), with the aim of maximizing the lifetime of the luminaire. To this end, the luminaire shall bear heat transfer blades made of cast aluminium as an integral part of the luminaire fitting without welding.
- 1.5. The blades must be fitted with adequate air gaps, in order to facilitate heat release while reducing air resistance (reduction of drag coefficient).
- 1.6. The luminaire should be suitable for outdoor operation at an ambient temperature between -40°C and +50°C
- 1.7. The Luminaire cover should be openable and remain partially fixed to the luminaire fitting with a cable of appropriate cross-section and strength.
- 1.8. The luminaire should have a die-casted aluminium socket for mounting on an arm up to Ø60 (mm) in diameter, as a single part of the fitting and can be adapted to smaller cross-sections.
- 1.9. The luminaire must be protected from dust and moisture IP≥66 (EN 60598) and shocks IK=10 (EN 62262).
- 1.10. All external screws and fixing materials shall be of stainless steel.
- 1.11. The luminaire must have a protective transparent cover of its optical unit, which is watertight and firmly closed and fixed, made of polycarbonate material, high durability and transparency and stabilized in terms of ultraviolet radiation and weather conditions. The mounting of the cover shall be made with stainless steel screws (inox).

2. Driver

- 2.1. The Power Supply (Driver) should be located in the upper part of the luminaire fitting, in a special place, with an aluminum cap of the same composition as the fitting sealed with a special rubber ring, excellent resistance to watertightness and tensile for dealing with adverse weather conditions.
- 2.2. The power supply (driver) shall be connected to the low voltage mains, and the rated supply voltage shall be 230V(±10%)/50Hz.
- 2.3. The power supply (driver) must have a minimum power factor of 0.90.
- 2.4. In the power supply of the luminaire there must be an electrical disconnecter to protect the technical staff, in case of maintenance.
- 2.5. Its Electric insulation class must be I or II

3. The optical unit

- 3.1 Led light sources constituting the luminaire's optical unit shall have a useful lifetime of at least 90,000 hours, at the end of which their luminous flux will not be degraded by more than 30% - L70 - at a temperature of T_s 85°C and an ambient temperature of 25°C (LM80, TM21). The above is certified by the LED manufacturer.
- 3.2 Maximum number of LEDs – see Table of Basic Elements - under exclusion penalty, so that during their operation no high temperature is developed in accordance with the requirement of the European directive on pollutant emissions and ecodesign in lighting.
- 3.3 The optical unit should have a single protective cover (for increased tightness and protection of the optical unit) with multiple lenses for better focus and luminous flux management, made of UV stabilized polycarbonate. Only products in which the lenses are embedded in the optical unit cover are accepted, provided that this is a (1) single cover for the entire optical unit of the luminaire with all the necessary lenses embedded.
- 3.4 The light emitting diodes (LEDs) must be equipped – under penalty of exclusion – with suitable devices (bypass devices) in a ratio of 1:1, so that in the event of a failure of even one light emitting diode, the rest will continue to operate normally.
- 3.5 The LEDs of each unit shall operate at a current not exceeding 1,050 mA
- 3.6 The optical unit shall have a colour rendering index (CRI/Ra) of at least 70.
- 3.7 The luminaire shall have a total energy efficiency equal to or greater (lm/W) – see the Key Elements Table - measured at an ambient temperature of 25°C according to the LM 79 standard and calculated by the total power consumed by the luminaire, including all its components and not only the LEDs.
- 3.8 The optical unit will have a color temperature – see the Key Elements Table.

4. Optical unit protective cover

- 4.1. The optical unit, for safety reasons, shall have a firmly attached (not easily openable) protective cover made of high-strength and transparent polycarbonate material stabilized in terms of ultraviolet radiation and weather conditions.
- 4.2. Only the protective covers in which the lenses are embedded are accepted, with the additional condition – under penalty of exclusion – that this is one (1) single cover for the entire optical unit of the luminaire with all the necessary lenses embedded.
- 4.3. The dust, humidity and impact protection requirements applicable to the luminaire (IP≥66, IK=10) include the protective cover.

5. Illuminance

For a defined indicative number of buildings, standard photometric studies will be performed. All studies shall be conducted according to the European Standards and in particular the ELOT EN 12464-2 standard: Light and lighting - lighting of workplaces - Part 2 : Outdoor workplaces

For each building, a rectangular calculation surface with dimensions equal to the length of each side and a width equal to 10m will be defined as its perimeter, namely on those sides of the building that have outdoor lighting. The layout of the luminaires shall be defined as a linear and "symmetrical inside" lighting device, with a predetermined mounting height as defined by the design. The permitted distance of the centre of the luminaires from the mounting wall is selectively set at 20cm to 40cm, through the use of appropriate length mounting brackets. The permissible slope for each luminaire is selectively set at 0° to 15° in relation to the horizontal plane, in order to obtain the required phototechnical results. The mounting brackets of the luminaires for all buildings will be for reasons of uniformity geometrically of the same design and construction.

The required average illuminance level will be calculated in lux at 0.80 meters from the ground and the maintenance factor will be set at 0.80 for all phototechnical studies. Each of the requested calculation surfaces will be subject to phototechnical study through the free DIALux phototechnology software. The phototechnical results after all studies and after the installation of the luminaires will provide minimum illuminance $E_m \geq 20\text{Lux}$ and minimum lighting uniformity $E_{min} / E_m \geq 0,25$.

For the Certification of Compliance with the Technical Specifications, the LED luminaires of all types should be accompanied by Certificates, Test Reports, in accordance with the Directives and Standards, which include the Instructions a) Low Voltage LVD 2014/35/EU, b) EMC 2014/30/EU conformity and c) RoHS 2011/65/EC, and the Standards EN60598-2-3, EN 62471, IEC TR 62778, IES LM-80/IES TM-21 as well as the Eulumdat (.LDT) according to EN 13032-4:2015 or Iesna (.Ies) according to LM79, from certified photometric laboratories. The manufacturer of the luminaire should participate in an Approved Alternative Waste Management System for Electrical and Electronic Equipment (WEEE).

The LED luminaires of all types, in addition to the above Technical Specifications, must meet, under penalty of exclusion, the specific technical characteristics of the following Compliance Table with the corresponding Certificate of Conformity.

COMPLIANCE TABLE (Φ1, Φ2, Φ3, Φ4)			
S/N	Description of Criterion	Requirement	Certificate of Conformity
1	CE marking (including low-voltage LVD 2014-35-EU and EMC electromechanical conformity 2014-30-EU instructions)	YES	Manufacturer's CE Declaration of Conformity and Manufacturer's Declaration that the entire Test Folder is at the disposal of the Evaluation Committee
2	Certification from the luminaire manufacturer	ISO 9001:2015	Valid certificate
3	Certification from the luminaire manufacturer	ISO 14001:2015	Valid certificate
4	Certification from the luminaire manufacturer	ISO 45001:2018	Valid certificate
5	Certification from the luminaire manufacturer	ISO 50001:2018	Valid certificate
8	Active ENEC certificate	YES	Valid ENEC certificate
9	Active ENEC+ certificate	YES	Valid ENEC+ certificate
10	LED certification as per IES LM80, IES TM-21	YES	Test Report from the LED Chips Manufacturer
12	Luminaire color at client's choice (for aesthetic reasons)	YES	Manufacturer's declaration about the colors available.
13	Transparent optical unit cover of the luminaire made of high-strength and transparent polycarbonate material stabilized in terms of ultraviolet radiation and weather conditions.	YES	Manufacturer's statement and Data Sheet
14	Degree of mechanical protection/impact of the luminaire according to EN 62262	IK = 10	ENEC Certificate or valid Test Report as per EN 62262, from an accredited laboratory in accordance with ISO/IEC 17025

15	Dust/humidity protection class of the luminaire according to EN 60598	IP \geq 66	ENEC Certificate or valid Test Report as per EN 60598, from an accredited laboratory in accordance with ISO/IEC 17025
16	Maximum Number of LEDs, under penalty of exclusion (pcs)	see Table of Basic Elements per Type	Manufacturer's Statement and Data Sheet
17	The optical system – lenses shall be embedded in the protective cover of the optical unit with the additional condition – under penalty of exclusion – that this is one (1) single cover for the entire optical unit of the luminaire with all the necessary lenses embedded	YES	Manufacturer's Statement and Data Sheet
18	Device bypassing the circuit of each light emitting diode on a 1:1 basis	YES	Manufacturer's Statement and Data Sheet
19	Certification of the board as per EN 62031, under penalty of exclusion	YES	Test Report as per EN 62031 Standard from an ISO/IEC 17025 certified laboratory for this Test
20	Resistance to a range of ambient temperatures of at least	-40°C to +50°C.	Manufacturer's Declaration
21	Resistance of luminaire to sun/ultraviolet (UV) exposure	YES	Manufacturer's Declaration
22	Aluminium body resistance to adverse weather conditions (Manufacturer's Certificate)	YES	Manufacturer's Declaration
23	Exterior aluminum body paint resistance to adverse weather conditions (Manufacturer's Certificate)	YES	Manufacturer's Declaration
24	Use of stainless steel (inox) lighting screws for resistance to weather conditions	YES	Manufacturer's Declaration
25	Minimum Energy Efficiency (lm/W)	see Table of Basic Elements per Type	Test report as per LM79 or EN 13032-4:2015 from an ISO/IEC 17025 accredited laboratory for the specific test
26	Power supply (Driver) certification according to IEC 61347-2-13	YES	Technical Brochure (Data Sheet) of the Power Supply Manufacturer
27	Rated voltage of the luminaire VAC	230V \pm 10%	Technical Brochure (Data Sheet) of the Power Supply Manufacturer
28	Minimum Luminaire Power Factor	0.9	Test report as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
29	Maximum LED driving current	1,050mA	Manufacturer's Statement and Data Sheet
30	The entire body of the luminaire, under penalty of exclusion, shall be entirely made of high thermal conductivity and fully recyclable die-casted aluminium (RoHS Compliance)	YES	Manufacturer's Statement and Data Sheet

31	The luminaire, under penalty of exclusion, will be designed with integrated blades for better heat release, made of die-casted aluminium as an integral part of the luminaire's fitting, without welding. The blades shall be provided with suitable air passage gaps to facilitate heat release while reducing air resistance (reduction of the drag coefficient).	YES	Manufacturer's Statement and Data Sheet
33	The power supply (driver) of the luminaire must be easily removable to allow maintenance or replacement without being necessary to fully disassemble the luminaire	YES	Manufacturer's Statement and Data Sheet
34	Maximum Overall Power (W)	see Table of Basic Elements per Type	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test
35	Minimum Net luminous flux (lumen)	see Table of Basic Elements per Type	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test
36	Minimum overvoltage protection	10kV	SPD Manufacturer's Technical Sheet
37	Color Temperature (CCT)	see Table of Basic Elements per Type	Test report as per IEC 62778 from an ISO/IEC 17025 accredited laboratory for the specific test
38	Minimum Color Rendering Index (CRI)	70	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test
39	Good performance guarantee (in years), minimum	5	Manufacturer's and the candidate contractor's solemn statement
40	Electric insulation class I or II	YES	Valid ENEC certificate
41	Eulumdat (.LDT) photometric files as per EN 13032-4:2015 or (.IES) as per LM79 from accredited laboratories of photometric measurements	YES	Test report as per LM79 or EN 13032- 4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
42	Photobiological testing of LEDs and luminaires according to IEC TR 62778 from an accredited laboratory	YES	Test report as per IEC 62778 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
43	Luminous flux retention control and luminous diode lifetime (LED) according to IES Standard LM-80	YES L70 >100.000 hours	Test report according to IES LM-80 from the LED manufacturer
44	The manufacturer of the luminaires to participate in an approved recycling system regarding the specific categories of competing products (WEEE), under penalty of exclusion	YES	Official Certificate in force for their participation in an alternative management system of WEEE approved by the Ministry of Environment, Energy and Climate Change, accompanied by a Certificate in force, registration in the National Producer Register (NRRR), with Producer Registration

			Number (PRN)
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B. ELECTRICAL LIGHTING CONTROL AND MANAGEMENT SYSTEM

The existing electrical lighting management and control system will be expanded and configured to include the luminaires under supply at the sites where they will be placed around the buildings.

The luminaires under supply will have the possibility of remote management, control and supervision, through a special system, consisting of the necessary electronic equipment of controllers and communication subsystems that will be placed inside each power supply pillar of the buildings.

The information from the operation of each separate communication hub will be collected and transferred to the control center, in order to facilitate the procedures of signalling and technical support of faults, hardware replacement planning, etc.

The main purpose of the system is to ensure easy but efficient remote management of lighting, the recording of the real situation per point, the complete handling of the operation, the absolute energy saving and the saving of resources for its maintenance.

1.1. The remote functions are summarized in three main modes:

1. **Handling** touch, dimming lighting per group of floodlights in the following ways:

- **On mode:** Activate any group of luminaires and/or all of them (simultaneously) in real-time, on command from the Software.
- **Off mode:** Disable any group of luminaires and/or all (simultaneously) in real-time, on command from the Software.
- **Schedule mode:** Automatic On / Off (On / Off) of each group of luminaires or all (simultaneously) based on a schedule to be determined by the user. The timetable must have the possibility of repetition on a daily, weekly, monthly and annual basis. Possibility of unlimited schedules per auto command.
- **Sunrise – Sunset mode:** Automatic On / Off of each group of luminaires and / or all (simultaneously) based on the Sunrise-Sunset algorithm (On at sunset and Off at sunrise).
- **Smart Photocell Sensor Functions:** Automatic On/Off of each group of luminaires and/or all of them together (at the same time) based on a central photocell depending on the prevailing weather conditions.

The automatic mode of operation of the luminaires that will be installed to meet the needs of street lighting will follow the following order:

Primarily, it will operate on the basis of sunset and sunrise, which it will receive accurately from the network (Internet) depending on the coordinates of ThPA (Sunrise – Sunset mode).

Secondly, a "smart photocell" will be installed, which on the one hand will replace the primary function in case of a network outage or another fault and on the other hand, it will activate the lighting in case of bad weather, clouds or excessive fog (Photocell Sensor). In any case, the end-user will be able to set the setpoint to lux, on the basis of which the luminaires will be automatically switched on/off.

2. Measurements: measurement of absorbed energy, power (active, reactive, total power), voltage and operating intensity, etc. in real time.

3. Notifications: in real time with immediate notice of the following failures:

- Power outage
- Overvoltage
- Failure of one or more phases
- Group Controller communication problem
- Communication antenna communication problem

1.2. System Structure

The Lighting Remote Management System will consist of three functional parts which will be:

1. Luminaire Group controller

They constitute the basic infrastructure of the System and are the devices that are installed in the electric lighting network in each supply panel (pillar) and record, collect and forward data to the Central Management System through the Communication Network.

2. Communication Network

It is the channel that connects the user to the group controllers. It consists of the physical medium used for communication by all communication protocols and communication technologies used and supported by the controllers for their communication with the Central Management System.

3. Central Management System

It is the core of the remote management system. It consists of all the components (web-server, database, software) needed for the monitoring and management of lighting points by the user.

1.3 System Architecture

The architecture of the remote management system bases its operation as follows:

- The group controllers group the luminaires into 1 to 3 groups in each power supply panel (pillar) using the three-phase connection.
- Group controllers send data to the server via the GSM telecommunications network or via wired / wireless local Ethernet network.
- Group controllers forward data (measurements, operating status, etc.) to the management software via the communication network and receive from it.
- All data collected and forwarded to the server will be able to be presented with appropriate software on the user's PC via a friendly graphical user interface (GUI).

The Contractor is responsible for the delivery of the technical manuals required in Greek or English as well as for the training of the staff indicated by ThPA SA. Training will be provided in Greek and, upon agreement, some modules will be taught in English.

The Greek language will be used for the Deliverables resulting from the execution of the Contractual Object. In case any Deliverables, from the methodology or from tools that may be used, are in English, they will be translated, if required, into Greek at the responsibility and expense of the Contractor.

The lighting control and management program (software) will be delivered to ThPA SA in full operation, with the necessary licenses, with the possibility of upgrades whenever required and with a warranty of operation for at least 5 years.

The cost of any telecommunication fees is borne by ThPA SA

During this period, any modification deemed necessary, regarding the organization of the lighting management system of ThPA SA (e.g. installation and introduction or rearrangement of the luminaire group controllers) the contractor is obliged to make it free of charge.

1.4 Group Controller

Group Controllers may be installed on a power supply board level in order to ensure the Remote Management of either the whole or a group of luminaires supplied from this board in three (3) phases.

The required number of Group Controllers will be determined under the responsibility of the Contractor. The items listed in the table below must be submitted under penalty of exclusion at the bid submission stage.

Group Controller		
Criterion Description	Requirement	Certificate of Conformity
Group Controller Communication	Communication with Remote Management Software: 5Ghz Wireless Coupling or Cable over an Ethernet network.	Luminaire Group Controller Technical Brochure
Group Controller Functions	<ul style="list-style-type: none"> - To have a three-phase four-wire meter and measure per phase at least the following: <ul style="list-style-type: none"> a. Current (I), Voltage (V), Power Factor (PF), Frequency (F) b. Active, Apparent, Reactive power (W, VA, VAR), c. Energy (KWh) - To detect possible faults in the luminaires it monitors and provide the Remote Management Software with relevant alerts. - The following operation modes can be selected through the Remote Management Software for the Group Controller: <ul style="list-style-type: none"> A. Activation (on mode) of the group of luminaires connected to the Group Controller in real time (real-time), following a relevant command from the Remote Management Software. B. Deactivation (off mode) of the group of luminaires connected to the 	Luminaire Group Controller Technical Brochure

	<p>to the Group Controller in real time, following a relevant command from the Remote Management Software.</p> <p>C. Activation /Deactivation of the group of luminaires connected to the Group Controller according to a schedule mode.</p> <p>D. Activation /Deactivation of the group of luminaires connected to the Group Controller according to the sunrise-sunset mode.</p> <p>E. Automatic on/off of each group of luminaires based on a central photocell depending on the prevailing weather conditions (Smart Photocell Sensor Function).</p>	
Performance guarantee	Performance guarantee of at least 5 years for the Group Controllers	Good Performance Guarantee of the supplier of the Group Controller

1.5 Central Management System (Software)

The management software will remotely control and monitor all groups of luminaires per building, will store and display all historical data in one place, and will notify in case of a problem or fault.

The Central Remote Management System must perform the following functions:

Central Management System (Software)		
Description of Criterion	Requirement	Certificate of Conformity
<p>Possibility to use the application with the following operational systems:</p> <ol style="list-style-type: none"> 1. Windows 2. Mac Os 3. IOS 4. Android 	YES	
<p>To show on a map the structure of the Lighting Network: positions of Group Controllers and luminaires, with indications of their characteristics and mode of operation.</p>	YES	

Be able to manage multiple Group Controllers at the same time and be able to apply a different operation mode to them.	YES	Remote Management Software Data Sheet
Provide data in the form of tables and/or graphs	YES	
Be able to retrieve and monitor (providing clues and alerts): -The operational status of the luminaire groups per building (through the possibility of detecting faults provided by the Group Controllers). - The parameters of energy consumption and the electrical parameters measured/provided by Group Controllers	YES	
Ability to upgrade system or resolve faults without stopping normal operation -Mode.	YES	

C. ELECTRICAL INFRASTRUCTURE WORKS

The installation of remote management materials will be done on a IP65 standalone board (Pilar) externally. The table will include General Safety, Leakage Relays, Power Relays (to avoid the large Inrush Current) per lighting group as well as safety per lighting group. The wiring of the luminaires will be done either autonomously (i.e. one cable per luminaire) or based on the lighting groups (one cable per lighting group). This wiring will end up on the same board in terminals. In this way, it will not be necessary to intervene in the remote management material in case of failure but only in the terminal block to which the luminaires are connected. The detailed dimensioning of the table will be performed by the Contractor during the implementation study.

ANNEXES

- A. Update on the processing of personal data
- B. Model Financial Offer
- C. Luminaire Compliance Table
- D. General Conditions of the Procurement Contract
- E. Draft General Conditions of Service Provision Contract
- G. Safety Declaration
- G. Sketch of Buildings
- Th. Drawing of lighting points around the buildings.

**THE EXECUTIVE CHAIRMAN OF BoD & MANAGING
DIRECTOR OF ThPA SA**

ATHANASSIOS LIAGKOS



ANNEX I

UPDATE ON THE PROCESSING OF PERSONAL DATA, pursuant to Article 13 of the GDPR 679/2016 (accompanies the **Application Forms** in Tenders-Calls-Offers etc. of the Procurement and Investment Division of "ThPA SA").

The Societe Anonyme under the name "Thessaloniki Port Authority" (ThPA SA, Law 2688/99, GG 40A/1-3-99), having its registered office in Thessaloniki (Pier 1, inside the Port PC: 54625, tel: 2310 593 118-121), as legally represented, hereby **informs** and; in conformity with the provisions of the applicable legislation on the protection of personal data, and, the General Regulation EU 679/2016 in particular, **in its capacity as a "Controller"**, the natural person (*hereinafter the «Data Subject»*), who signs the Application Form, the Offer or other similar form of the Procurement and Investment Division of "ThPA SA" and submits the necessary supporting documents, **either** on its behalf, as a representative of a private company **or** as a natural person -legal representative of the participant in the legal person procedure, **or** in another similar legitimizing capacity, that ThPA SA and its competent Services-Divisions-Departments (*such as its employees, acting under its supervision, by order and on its behalf and within the framework of their powers and, possibly with others, jointly referred to as "Controllers" and "Processors", third parties or recipients: other participants in the procedure, Ministries, public authorities, Tax Offices, Judicial Authorities etc. based on the compliance with the legal obligation of the "Processor" or in fulfilment of his duty or for performance of a contract*), **collects, processes and keeps** a record of the personal data included in the Application Form, Offer or any other document of the Procurement and Investment Division of "ThPA SA" and in its accompanying documents, which are voluntarily submitted to "ThPA SA" by the "Data Subject" either on his behalf (*private company*) or on behalf of the legal person representing it.

These data will be used for the purposes of handling the Application Form, the Offer or any other similar document of the Procurement and Investment Division of ThPA SA. The purpose of processing may be: The purpose of processing may be: The evaluation of the Application/Offer etc., the verification of the details of the «Data Subject» or the company that it represents, required by the procedure, the evaluation of the suitability of the «Data Subject» or the company it represents, as a candidate counter-party towards the conclusion of a contract with "ThPA SA" or with a view to concluding a contract (*Article 6, par.1b GDPR Expl.44*). Furthermore, "ThPA SA" processes such data in order to communicate with the "Data Subject" whenever it considers it to be necessary, on issues relating to the procedure and for reconciling "ThPA SA" with the requirements of the Regulation and law (*compliance with his legal obligation, Article 6, par 1c GDPR*). These data are kept at the competent Procurement **Department for as long as it is necessary to check the Application/Offer etc. and the data submitted therein, throughout the period needed to complete the procedure, throughout the period of submission of any objections and lodging an appeal that may be provided for internally or by law, throughout the period of fulfillment of both parties' obligations and the period of limitation for bringing claims and, generally, for as long as it is required from the letter and the spirit of the Subcontracting and Procurement Regulation and the relevant law and contracts governing the operation of ThPA SA, as applicable.** Then, they are filed, either on paper or electronically in such a way that access is not authorized to non-authorized employees. After the elapse of the necessary time period, they will be safely destroyed, as provided for by the relevant legislation (*the provisions of Article 191 §2 of Law 4610/2019 (A '70) apply for the period up to 23-3-2018, while, the maximum limitation period laid down in the Civil Code shall apply from then on and for the conversion of the Processor into a SA*). The provision of such data is necessary for this procedure and, failure of the "Data Subject" to provide them will lead to the inability of the Data Subject to participate in the procedure and the impossibility of providing such service.

The "Data Subject" can submit a request to the "Controller" on: Access-information, correction, limitation of the processing of data regarding it, objection to processing, erasure of data and data portability **subject to the conditions and limits laid down by the applicable legislation** (*e.g. 17 par.3, 20 par.3, 23 GDPR*). These rights are exercised either by filling in the relevant application form available on the **Protocol and the Investment and Procurement Division** of "ThPA SA", or by sending a letter to the address: "ThPA SA", Pier 1, within the port, PC: 546, Thessaloniki, tel: 2310 593118-121, or by sending an email to the address: dpo@thpa.gr. The "Controller" provides information to the "Data Subject" about the action held upon request, pursuant to Article 15 to 22 of the GDPR without delay and, in any case, **within one month** from the reception of the request. This deadline **may** be extended for two more months, if required, taking into account the complexity and the number of requests (*see more in detail: Article 12 par. 3-4 of the GDPR*). Also, for any complaint, the "Data Subject" has the

right to notify the **Data Protection Authority** either in writing (*address: 1-3 Kifissias Str. P.C. 115 23, Athens*) or by e-mail ([link](#)).

Thessaloniki, ___ / ___ /20___

7th Edition/2020

I have become aware of this Update (*signature and in full letters*)

ANNEX B- MODEL FINANCIAL OFFER

		Thessaloniki Port Authority, SA			
		FINANCIAL OFFER FORM			
		Project Title: "Supply, transportation, installation and delivery in full operation of three hundred (300) street lighting luminaires made of die-casted aluminium, with light emitting diode (LED) technology light sources, around thirty-three (33) buildings within the Port, as well as the extension and configuration of the existing electric lighting remote management system"			
S/N	Criterion	Type of offered items	Pcs	Unit Price without VAT [€]	Subtotal without VAT [€]
1	LED luminaire, up to 45W, suitable for street lighting				
2	LED luminaire, up to 65W, suitable for street lighting				
3	LED luminaire, up to 85W, suitable for street lighting				
4	LED luminaire, up to 135W, suitable for street lighting				
5	Luminaire brackets				
6	Installation of LED street lighting luminaires				
7	Supply and installation of electrical infrastructure (boards, cables, relays, etc.)				
8	Luminaire Group Controllers, communication antennae				

9	Smart sensor - photocell				
10	Sunrise-Sunset Digital Timer				
11	Extension and configuration of the central lighting management system				
	Total [pcs]			Total [€]	
				VAT 24% [€]	
				General Total	

- a) Time of tender validity.....
b) Time of delivery.....
c) Time of guaranteed proper operation.....

Place Date

The tenderer (Name and Stamp)

ANNEX C - LUMINAIRE COMPLIANCE TABLE

COMPLIANCE TABLE (Φ1, Φ2, Φ3, Φ4)				
S/N	Description of Criterion	Requirement	Certificate of Conformity	Compliance reference
1	CE marking (including low-voltage LVD 2014-35-EU and EMC electromechanical conformity 2014-30-EU instructions)	YES	Manufacturer's CE Declaration of Conformity and Manufacturer's Declaration that the entire Test Folder is at the disposal of the Evaluation Committee	
2	Certification from the luminaire manufacturer	ISO 9001:2015	Valid certificate	
3	Certification from the luminaire manufacturer	ISO 14001:2015	Valid certificate	
4	Certification from the luminaire manufacturer	ISO 45001:2018	Valid certificate	
5	Certification from the luminaire manufacturer	ISO 50001:2018	Valid certificate	
8	Active ENEC certificate	YES	Valid ENEC certificate	
9	Active ENEC+ certificate	YES	Valid ENEC+ certificate	
10	LED certification as per IES LM80, IES TM-21	YES	Test Report from the LED Chips Manufacturer	
12	Luminaire color at client's choice (for aesthetic reasons)	YES	Manufacturer's declaration about the colors available.	
13	Transparent optical unit cover of the luminaire made of high-strength and transparent polycarbonate material stabilized in terms of ultraviolet radiation and weather conditions.	YES	Manufacturer's statement and Data Sheet	
14	Degree of mechanical protection/impact of the luminaire according to EN 62262	IK = 10	ENEC Certificate or valid Test Report as per EN 62262, from an accredited laboratory in accordance with ISO/IEC 17025	

15	Dust/humidity protection class of the luminaire according to EN 60598	IP≥66	ENEC Certificate or valid Test Report as per EN 60598, from an accredited laboratory in accordance with ISO/IEC 17025	
16	Maximum Number of LEDs, under penalty of exclusion (pcs)	see Table of Basic Elements per Type	Manufacturer's Statement and Data Sheet	
17	The optical system – lenses shall be embedded in the protective cover of the optical unit with the additional condition – under penalty of exclusion – that this is one (1) single cover for the entire optical unit of the luminaire with all the necessary lenses embedded	YES	Manufacturer's Statement and Data Sheet	
18	Device bypassing the circuit of each light emitting diode on a 1:1 basis	YES	Manufacturer's Statement and Data Sheet	
19	Certification of the board as per EN 62031, under penalty of exclusion	YES	Test Report as per EN 62031 Standard from an ISO/IEC 17025 certified laboratory for this Test	
20	Resistance to a range of ambient temperatures of at least	-40°C to +50°C.	Manufacturer's Declaration	
21	Resistance of luminaire to sun/ultraviolet (UV) exposure	YES	Manufacturer's Declaration	
22	Aluminium body resistance to adverse weather conditions (Manufacturer's Certificate)	YES	Manufacturer's Declaration	
23	Exterior aluminum body paint resistance to adverse weather conditions (Manufacturer's Certificate)	YES	Manufacturer's Declaration	
24	Use of stainless steel (inox) lighting screws for resistance to weather conditions	YES	Manufacturer's Declaration	
25	Minimum Energy Efficiency (lm/W)	see Table of Basic Elements per Type	Test report as per LM79 or EN 13032-4:2015 from an ISO/IEC 17025 accredited laboratory for the specific test	
26	Power supply (Driver) certification according to IEC 61347-2-13	YES	Technical Brochure (Data Sheet) of the Power Supply Manufacturer	
27	Rated voltage of the luminaire VAC	230V ± 10%	Technical Brochure (Data Sheet) of the Power Supply	

			Manufacturer	
28	Minimum Luminaire Power Factor	0.9	Test report as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
29	Maximum LED driving current	1,050mA	Manufacturer's Statement and Data Sheet	
30	The entire body of the luminaire, under penalty of exclusion, shall be entirely made of high thermal conductivity and fully recyclable die-casted aluminium (RoHS Compliance)	YES	Manufacturer's Statement and Data Sheet	
31	The luminaire, under penalty of exclusion, will be designed with integrated blades for better heat release, made of die-casted aluminium as an integral part of the luminaire's fitting, without welding. The blades shall be provided with suitable air passage gaps to facilitate heat release while reducing air resistance (reduction of the drag coefficient).	YES	Manufacturer's Statement and Data Sheet	
33	The power supply (driver) of the luminaire must be easily removable to allow maintenance or replacement without being necessary to fully disassemble the luminaire	YES	Manufacturer's Statement and Data Sheet	
34	Maximum Overall Power (W)	see Table of Basic Elements per Type	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test	
35	Minimum Net luminous flux (lumen)	see Table of Basic Elements per Type	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test	
36	Minimum overvoltage protection	10kV	SPD Manufacturer's Technical Sheet	

37	Color Temperature (CCT)	see Table of Basic Elements per Type	Test report as per IEC 62778 from an ISO/IEC 17025 accredited laboratory for the	
38	Minimum Color Rendering Index (CRI)	70	Test Report as per LM79, Standard from an ISO/IEC 17025 certified laboratory for this Test	
39	Good performance guarantee (in years), minimum	5	Manufacturer's and the candidate contractor's solemn statement	
40	Electric insulation class I or II	YES	Valid ENEC certificate	
41	Eulumdat (.LDT) photometric files as per EN 13032-4:2015 or (.IES) as per LM79 from accredited laboratories of photometric measurements	YES	Test report as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
42	Photobiological testing of LEDs and luminaires according to IEC TR 62778 from an accredited laboratory	YES	Test report as per IEC 62778 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
43	Luminous flux retention control and luminous diode lifetime (LED) according to IES Standard LM-80	YES L70 >100.000 hours	Test report according to IES LM-80 from the LED manufacturer	
44	The manufacturer of the luminaires to participate in an approved recycling system regarding the specific categories of competing products (WEEE), under penalty of exclusion	YES	Official Certificate in force for their participation in an alternative management system of WEEE approved by the Ministry of Environment, Energy and Climate Change, accompanied by a Certificate in force, registration in the National Producer Register (NRRR), with Producer Registration Number (PRN)	

ANNEX D - GENERAL CONDITIONS OF THE PROCUREMENT CONTRACT

1. Contract Duration

(a) The Contract begins on the date of signature and ends at the end of the execution time of the supply, unless extended in accordance with article 1(b) or terminated earlier in accordance with these terms. Unless an expiration date is specified, the Contract will come to an end when all goods are accepted and all payments required under the Contract are made.

(b) Any of the parties may, by written notice to the other party at least fifteen (15) days before the expiry of the Contract, request an extension of the Contract beyond the date of execution of the supply. The Contract may only be extended for the period(s) agreed to by the parties in writing.

2. Supply and delivery of goods

(a) The Supplier shall deliver the goods to ThPA in accordance with the terms of this Contract and any reasonable instructions given by ThPA.

(b) The Supplier shall deliver the goods to the delivery point by the time of delivery set out in the Contract. Receipt is considered completed if one of the following occurs:

- (i) ThPA has certified their acceptance in writing; or
- (ii) acceptance was made in accordance with the following article 3(a).

3. Acceptance or rejection of goods

(a) If the goods comply with this Contract, ThPA will promptly issue written acknowledgment of acceptance of the goods. If ThPA does not give written acknowledgment of acceptance/rejection of the goods within thirty (30) days of delivery, acceptance of the goods will be deemed to have taken place on the date of delivery, subject to actual defects which are not visible to the naked eye.

(b) If the goods:

- (i) do not comply with this Contract; or
- (ii) are damaged on delivery, unfit for purpose or unusable commercially;

ThPA SA may reject the goods by written notice (including reasons for the rejection) to the Contractor within thirty (30) days of delivery. ThPA SA shall not be liable to pay for goods rejected.

(c) The Supplier, at his cost, shall collect and remove any rejected goods as soon as practicable upon notice. If the Supplier fails to collect and remove the rejected goods within a reasonable time, ThPA may return the goods to the Supplier at the Supplier's expense, or, following further notice, destroy the goods or otherwise dispose of the goods in its discretion.

4. Contractual Price

(a) The Unit Price is fixed and inclusive of all taxes for the entire duration of the Contract.

(b) The Supplier may not charge ThPA any additional fee or charge for packaging, transport, insurance, loading, unloading, storage or any other costs incurred by the Supplier in relation to the supply or delivery of the goods to ThPA.

5. Invoicing and payment

(a) On or upon acceptance of the goods, or as otherwise specified in the Contract, the Supplier shall submit to ThPA a tax document (with all the information required by Greek law along with other information, as reasonably required by the ThPA), which shall include the contractual price.

(b) ThPA shall pay the invoiced amount minus any amount required by Law within sixty (60) days of receipt of a valid invoice.

(c) Payment of an invoice is not to be taken as evidence that the goods have been delivered in accordance with the Contract, but shall be taken only as payment on account.

6. Transfer of ownership and risk

Ownership of the goods will be transferred to ThPA upon acceptance of the goods. ThPA bears the risk linked to the goods after they are delivered to the point of delivery.

7. Warranties

(a) The Supplier states and warrants to ThPA that:

- (i) He has the right to enter into Sales and Service Contracts for the specific purpose of the Contract.
- (ii) He has the right to sell and transfer the ownership of the goods to ThPA
- (iii) Himself and its Personnel do not hold any office or possess any property, are not engaged in any business or activity and do not have any obligations whereby duties or interests are or might be created in conflict with or might appear to be created in conflict with its obligations under the Contract
- (iv) He has not entered into the Contract on behalf of a trust and
- (v) The goods:
 - (A) are new and fit for the purpose specified in the Contract (or, if no purpose is stated, for the purpose for which the goods they are normally used)
 - (B) comply in all respects with this Contract
 - (C) are free from defects (including installation defects) and
 - (D) are of a quality compliant with business usages and complies with all Laws.

(b) If provided in the Contract, the Supplier will provide any warranties of the manufacturer to ThPA SA

8. Liability

(a) The Supplier compensates, and will at all times keep ThPA SA and each of its Personnel exempted from any liabilities, losses, damages, costs and expenses (including all legal and settlement costs determined on a full compensation basis) or compensation arising out of, or in any way in connection with, any of the following:

- (i) personal injury or death
- (ii) property damage
- (iii) breach of an obligation of confidentiality or privacy, whether under this Contract or otherwise
- (iv) fraudulent acts or omissions
- (v) wilful misconduct or unlawful act or omission
- (vi) breaches of logical or physical security
- (vii) loss or corruption of Data
- (viii) third-party claim arising out of a breach of the Contract by the Supplier or its Personnel (including breach of warranty) or any negligent act or omission of the Supplier or its Personnel, or
- (ix) infringement or alleged infringement of the Intellectual Property Rights or any other rights of any person, including any third party,
- (x) breach of any of its obligations under the contract which was caused, or contributed to by, any act or omission of the Contractor or any of its Personnel.

(b) The Supplier's liability to compensate ThPA SA under article 8 is reduced to the extent that any wilful, unlawful or negligent act or omission of ThPA or its Personnel contributed to the liability, loss, damage, cost, expense or compensation borne by the Supplier.

9. Termination

(a) ThPA may terminate the Contract with immediate effect (or with effect from a specified date) by written notice to the Supplier if the Supplier:

- (i) fails to deliver the goods in accordance with the Contract
- (ii) breaches any provision of the Contract and, where that breach is capable of remedy, he fails to remedy the breach within ten (10) business days upon receipt of written notice (or such later date as may be specified in that notice)
- (iii) infringes any article of the Contract in a way that cannot be corrected
- (iv) goes into receivership
- (v) any of its Personnel involved in the supply of goods commits fraud, demonstrates dishonesty or any other serious misconduct.

(b) If the Contract is terminated in accordance with article 9(a), ThPA shall pay for the goods received in accordance with the terms of the Contract by the date of termination.

ThPA has no other liability to the Supplier in relation to that termination.

(c) The Supplier may terminate the Contract by written notice to ThPA of at least thirty (30) business days, if ThPA fails to pay amounts due under this Contract.

(d) Termination or expiry of this Contract shall not prejudice any right to lodge an action or an appeal by any of the parties, which arose during the term of this Contract and until its expiry or termination.

(e) On termination or expiry of the Contract, the Supplier shall immediately, following instructions by ThPA, cease using all material that contain any Data or Confidential Information by either destroying the material or returning the materials at no additional cost to ThPA.

10. Confidentiality, privacy and data protection - GDPR

For the observance of the principles of privacy and confidentiality and the processing of personal data, the parties sign and abide by the attached Annex 2, which forms an integral part hereof.

11. Access

When at the ThPA SA's premises, the Supplier must, and must ensure that its Personnel:

- (a) protect people and property of ThPA
- (b) prevent any disturbance
- (c) act in a safe and lawful manner
- (d) comply with the safety standards and policies of ThPA (as notified to the Supplier) and
- (e) comply with any directions of ThPA or its Personnel.

12. Subcontracting

(a) The Supplier shall not sub-contract to any third person any of his obligations in relation to the supply of the goods without the prior written consent ThPA (which may be given subject to conditions or cancelled in its absolute discretion).

(b) The Supplier shall not, as a result of any sub-contracting, be released from the obligations under the Contract and will be responsible for all acts and omissions of any sub-contractor as though they were the actions of the Supplier.

13. Force Majeure

(a) The Supplier may not be held liable for the untimely completion of the supply in case there are reasons of force majeure that prevent the timely fulfillment of the Contract. Force majeure shall be understood to be any unexpected event, which cannot be prevented, even with measures of extreme diligence and prudence, making it impossible for the Contractor to fulfill its obligations alone or via third parties.

(b) Events falling within the scope of the occupational risks associated to the supplier's professional activity and may adversely affect the fulfillment of his contractual obligations do not constitute grounds of force majeure.

14. Compliance with laws and policy

(a) This Contract shall be governed and construed in accordance with the Greek law.

(b) The contracting parties shall use their best endeavour to resolve any dispute or disagreement that may arise over the interpretation or performance of this Contract amicably. The Courts of Thessaloniki shall be competent for resolving any dispute arising from the performance of this Contract.

15. General Terms

(a) Time is critical for the supply of the goods.

(b) The Contract may only be modified or replaced by a written document executed by both parties.

(c) A waiver of any right, power or remedy under the Contract shall be in writing and signed by the party granting it. The fact that a party fails or delays in exercising any of its rights under this Contract, the failure or delay does not amount to a waiver.

(d) Any provision of the Contract which is invalid or unenforceable is to be read down, if possible, so as to be valid and enforceable, and, if that is not possible, the provision will, to the extent possible, be severed to the extent of the invalidity or unenforceability, without affecting the remaining provisions.

(e) ThPA may set off any sum owing to the Supplier under the Contract with any amount owing by the Supplier to ThPA.

(f) Subject to article 15(h), a party may not assign any right under the Contract without the prior written consent of the other party. The Supplier will be responsible for acts and omissions of any assignee.

(h) ThPA SA may, by notice in writing to the Supplier, assign its rights, transfer its obligations or renew the Contract in consultation with any other Entity or other subsidiary of ThPA SA.

16. Entire Understanding and order for precedence

This Contract contains everything the parties have agreed in relation to the goods. Neither party can rely on an earlier written document or any oral communication by or on behalf of another party before this Contract was executed.

ANNEX 3 - GENERAL CONDITIONS OF THE SERVICE PROVISION CONTRACT

1. Contract Duration

- (a) The duration of the Contract is determined from the commencement date to the expiry date, except in the case of an extension in accordance with Article 1 (b) or an early termination in accordance with these terms. If no expiration date is specified, the Contract will come to an end when all Services have been completed and all payments required to be made under the Contract have been made.
- (b) Any of the parties may, by written notice notified to the other party at least fifteen (15) days before the expiration of the Contract, request an extension of the Contract beyond the date of expiration. The Contract may be extended only for the period or periods the agreed in writing by the parties.
- (c) In the event that a Contract of indefinite duration is agreed, each party reserves the right to terminate it at any time, with or without cause, with written notice to the other party of at least thirty (30) days.
- (d) In the event that a fixed-term contract is agreed upon, either party may terminate it at any time without a notice deadline, under the conditions set in article 10.

2. Provisio of Services

- (a) The Contractor shall provide the Services in accordance with the specifications set out in the Contract and any instructions to be given by ThPA.
- (b) The Contractor:
 - (i) Shall complete the Services according to the schedule specified in the Contract.
 - (ii) Shall promptly notify ThPA as soon as he becomes aware of any delay or possible delay in the supply of the Services in accordance with the Contract.
 - (iii) Shall provide fit for purpose Services in a timely and efficient manner using the standard of care, skill, diligence, prudence and foresight that would reasonably be expected from a prudent, expert and experienced provider of services that are similar to the Services herein and
 - (iv) Shall use adequate and properly trained staff, specialized in the provision of the Services.
- (c) After performance of the Services or delivery of any deliverable provided as part of the Services, ThPA shall undertake reviews as it considers necessary to determine whether the Services or deliverable(s) are fit for purpose and comply with this Contract. After reviewing the Services or deliverable(s), ThPA may notify the Contractor in writing:
 - (i) That it accepts the Services or deliverables if it has been certified that the Services or deliverables comply with this Contract or
 - (ii) That the Services or deliverables do not comply with this Contract, in which case Article 2(d) shall apply.
- (d) If ThPA notifies the Supplier that the Services or the deliverables do not comply with this Contract, the Contractor is obliged immediately or within the deadline set by ThPA to remedy the non-compliance and then ThPA further checks the Services or deliverables pursuant to Article 2(c). This process may continue until ThPA SA, at its discretion:
 - (i) waives, in writing, the requirement for the Services or deliverable(s) to comply with this Contract

- (ii) makes sure that the Services or deliverable comply with this Contract and accepts the Services or deliverable(s) in accordance with Article 2(c)(i)
- (iii) sets a deadline for the Contractor to remedy the non-compliance within a reasonable time frame and with the terms set by ThPA or
- (iv) subject to ThPA having provided the Contractor with at least two opportunities to rectify the non-compliance under Article 2(c)(ii)- terminates this Contract by written notice to the Contractor.

If ThPA terminates this Contract pursuant to Article 2(d) (iv), it shall be entitled to a full refund of all money paid to the Contractor for the Services or deliverables which the Contractor did not provide.

3. Price for the Services

- (a) The remunerations paid for the Services are fixed and include possible travel and subsistence expenses, fees and taxes such as VAT and any similar tax, imposed during the Contract, unless specifically provided for in the Contract.
- (b) The Contractor may not charge ThPA any additional fees or charges or recover costs or other expenses from ThPA.

4. Invoicing and payment

- (a) Upon completion of the Services, or as otherwise specified in the Contract, the Contractor shall submit an invoice to ThPA, at the address specified in the Contract. Each invoice submitted by the Contractor shall contain all information required in a tax invoice for the purposes of the Greek Law, along with such other information as ThPA may reasonably require.
- (b) On or following acceptance of the Services, ThPA shall pay the invoiced amount, less any amount required by the Law, within sixty (60) days of receipt of an accurate invoice. The Contracting parties shall make every possible effort to settle amicably any dispute that may arise, in accordance with article 14.
- (c) Payment of an invoice is not to be taken as evidence that the Services have been supplied in accordance with the Contract, but shall be taken only as payment on account.

5. Failure to perform

- (a) If the Contractor fails to perform the Services or to provide the deliverables in accordance with the Contract, ThPA:
 - (i) is not required to pay for those Services or the deliverable(s) until they are provided in accordance with the Contract, and
 - (ii) may issue a notice to the Contractor requiring from him to restore any default or re-perform the Services or deliverable(s) within the time specified by ThPA.
- (b) If:
 - (i) the default or the service referred to in Article 5(a) above cannot be restored or performed respectively, or
 - (ii) the Contractor fails to rectify the breach or implement again the non-compliance Services or the deliverables within the deadline set in th notification issued according to Article 5(a)(ii),

ThPA may either assign the restoration of the Services or deliverables to a third party or undertake to do it itself. In any case, the Contractor shall pay the reasonable costs incurred to ThPA for the restoration or performance of the services.

- (c) Nothing in this Article 5 excludes or otherwise restricts any other remedy that may be used by ThPA.

6. Intellectual Property Rights

- (a) The ownership of each product of the Contract (either tangible or intangible) belongs to the Contractor from the moment of concluding the Contract. The Contractor grants irrevocably and unconditionally to ThPA a permanent, non-exclusive, royalty-free, universal and transferable license (including licensing right) to exercise all the Intellectual Property Rights in the products required by the Contract, to the extent required to allow ThPA the full use and exploitation of the Services.
- (b) All pre-existing Intellectual Property used by the parties in connection with the provision of the Services or the creation of Contract Materials remains the property of the relevant party or its licensors.
- (c) The Contractor grants irrevocably and unconditionally to ThPA a permanent, non-exclusive, royalty-free, universal and transferable license (including licensing right) for the use of the pre-existing Intellectual Property in the products of the Contract that are incorporated or otherwise required to use the products of the Contract or the Services. The license granted to ThPA under this article is limited to the use of the relevant pre-existing Intellectual Property by ThPA for the purposes of ThPA.

- (d) ThPA grants the Contractor a non-exclusive, non-transferable, royalty-free license to use ThPA's pre-existing Intellectual Property for the sole purpose of performing, and only to the extent required to perform, the Services and complying with its obligations under the Contract during the term of the Contract.
- (e) The Contractor undertakes that the Services may be used in any way by ThPA, without identifying any person as the individual responsible for creating any particular material comprised in it, without infringing the Moral Rights of any person.
- (f) The Contractor, shall, at the request of ThPA SA, take all necessary action (including the preparation of documents) to ensure full implementation of this Article 6

7. Data

(a) The data will remain (and, if necessary, become) property of ThPA.

The Contractor shall assign to ThPA, from the date of Contract conclusion, all Intellectual Property Rights to data created by or on behalf of the Contractor.

(b) The Contractor shall only use the Data to the extent necessary to perform his obligations under the Contract.

8. Liability

(a) The Contractor shall indemnify and at all times keep ThPA and its staff indemnified against any liabilities, losses, damages and expenses (including all legal and settlement costs determined on a full indemnity basis) or compensation arising out of, or in connection with, any:

- (i) personal injury, including death
 - (ii) property damage
 - (iii) infringement of an obligation of confidentiality or privacy, whether under this Contract or otherwise
 - (iv) fraudulent acts or omissions
 - (v) willful misconduct or unlawful act or omission
 - (vi) infringement of logical or physical security
 - (vii) loss or corruption of Data
 - (viii) third party claim arising out of a breach of the Contract by the Contractor or its staff (including breach of warranty) or any negligent act or omission of the Contractor or its staff or
 - (ix) infringement or alleged infringement of the Intellectual Property Rights or any other rights of any person, including any third party
 - (X) infringement of any of its obligations under the contract which was caused, or contributed to by, any act or omission of the Contractor or any of his staff
- (b) The Contractor's liability to compensate ThPA SA under clause 8 is reduced to the extent that any wilful, unlawful or negligent act or omission of the ThPA SA or its staff contributed to the liability, loss, damage, cost, expense or compensation borne by the Contractor.

9. Warranties

The Contractor states and warrants to ThPA that:

(a) He has the right to enter into Service Contracts for the specific purpose of the Contract.

(b) When ThPA, either expressly or indirectly, notifies the Contractor of any specific purpose for which the Services are required, the Services shall be performed in such a way as to achieve this result.

(c) The Contractor and its staff do not hold any office or possess any property, are not engaged in any business or do not have any obligations whereby duties or interests are or might be created in conflict with or might appear to be created in conflict with its obligations under this Contract

(d) He has not entered into the Contract on behalf of a trust and

(e) The receipt of the Services and the possession or use of any deliverables by ThPA do not infringe the Intellectual Property Rights or other rights of any person or any Laws.

(f) He will indemnify any third-party claim that may be directed against ThPA for an act or omission of the Contractor during the fulfillment of his obligations under the Contract.

10. Termination

(a) ThPA may terminate the Contract with immediate effect (or with effect from a specified date) by written notification to the Contractor if the Contractor:

- (i) fails to provide the Services in accordance with the Contract
- (ii) breaches any provision of the Contract and, where that breach can be corrected, he fails to remedy the breach within 10 Business Days after receiving written notice requiring it to do so (or such later date as may be specified in that notice)
- (iii) breaches any provision of the Contract that cannot be corrected
- (iv) if any of its staff involved in the provision of Services commits fraud, demonstrates dishonesty or any other serious misconduct or
- (v) goes into receivership.

(B) In case of termination of the Contract in accordance with Article 10(a0), ThPA shall pay the Contractor:

- (i) for the Services performed in accordance with the Contract up to the date of the termination
- (ii) the unavoidable and documented costs incurred to the Contractor for the performance of the Contract prior to the notification of termination, excluding any loss of profit

ThPA SA has no other liability to the Contractor in relation to that termination.

(d) When ThPA issues a notice under Article 10(a), the Contractor shall immediately comply with the instructions given in the notice and do everything possible to mitigate its losses resulting from the termination of the Contract.

(e) The Contractor may terminate the Contract by giving a written notice to ThPA of at least thirty (30) business days, if ThPA fails to pay amounts due under this Contract.

(f) Termination or expiry of this Contract shall not prejudice any right of action or remedy which may have accrued to either party prior to termination or expiry.

(g) On termination or expiry, the Contractor shall immediately, following instructions by ThPA, cease using all materials that contain any Data or Confidential Information by either destroying the materials or returning the materials, at no additional cost to ThPA.

11. Insurance

(a) The Contractor shall obtain and maintain insurance coverage during the term of the Contract and, if requested by ThPA, for a period of three (3) years or for a longer period to be set by ThPA after the completion of the Services, sufficient for the coverage of any damages or expenses incurred for which the Contractor may be liable in connection with the Contract, including professional liability and, where applicable, civil and product liability insurance at the value specified in the Contract or, if no value is specified, at a value sufficient to cover any losses or costs that may arise.

(b) Upon request, the Contractor shall, within ten (10) working days, provide ThPA with evidence of the existence of the insurance policy required under the Contract.

(c) Where the required insurance is due to expire, upon request by ThPA, the Contractor shall provide evidence of the replacement insurance prior to the expiry of the initial insurance.

12. Confidentiality, privacy and data protection - GDPR

For the observance of the principles of privacy and confidentiality and the processing of personal data, the parties sign and abide by the attached Annex 2, which forms an integral part hereof.

13. Access

When at ThPA SA's premises, the Contractor shall ensure that he and its staff:

- (a) protect people and property of ThPA
- (b) prevent nuisance
- (c) act in a safe and lawful manner
- (d) comply with the safety standards and policies of ThPA (as notified to the Contract) and
- (e) comply with any directions of ThPA or its staff.

14. Sub-contracting

- (a) The Contractor shall not sub-contract to any third person any of its obligations in relation to the Services without the prior written consent of ThPA (which may be given conditionally or withheld in its absolute discretion).
- (b) The Contractor will not, as a result of any sub-contracting arrangement, be relieved from the performance of any obligation under the Contract and will be liable for all acts and omissions of a sub-contractor as though they were the actions of the Contractor himself.

15. Compliance with laws and policy

- (a) The Contractor shall, during performance of its obligations under the Contract, comply with the Laws of Greek legislation concerning the provision of Services.
 - (b) Where, in the course of providing the Services, the Contractor or its staff:
 - (i) supervise or cooperate with employees of ThPA
 - (ii) undertake work that is of a similar nature to the works undertaken by ThPA employees at premises or locations generally regarded as a workplace or
 - (iii) use or have access to resources or information that are not normally accessible or available to the public
- the Contractor shall (and ensure that its staff) comply with ThPA's Regulations and with the Law.
- (c) The Contract shall be governed and construed in accordance with the Greek law.
 - (d) The contracting parties shall endeavour to settle any dispute or disagreement that may arise over the interpretation or performance of this Contract amicably. Should this prove impossible, the Courts of Thessaloniki shall be competent for resolving any dispute arising from the performance of this Contract.

16. Force Majeure

- (a) The Contractor may not be held liable for the untimely completion of the supply in case there are reasons of force majeure that prevent the timely fulfillment of the Contract. Force majeure shall be understood to be any unexpected event, which cannot be prevented, even with measures of extreme diligence and prudence, making it impossible for the Contractor to fulfill its obligations alone or via third parties.
- (b) Events that fall within the scope of the occupational risks associated to the Contractor's professional activity and may adversely affect the fulfillment of its contractual obligations do not constitute grounds of force majeure.

17. General Terms

- (a) Time is critical for the provision of the Services.
- (b) The Contract may only be modified or replaced by a written document executed by both parties.
- (c) A waiver of any right, power or remedy under the Contract shall be in writing and signed by the party granting it. The fact that a party fails or delays in exercising any of its rights under this Contract, the failure or delay does not amount to a waiver.
- (d) Any provision of the Contract which is invalid or unenforceable is to be read down, if possible, so as to be valid and enforceable, and, if that is not possible, the provision will, to the extent possible, be severed to the extent of the invalidity or unenforceability, without affecting the remaining provisions.
- (e) ThPA may set off any sum owed to the Supplier under the Contract with any amount owed by the Contractor to ThPA SA.
- (f) Subject to article 17(g), a party may not assign any right under the Contract without the prior written consent of the other party. The Contractor shall be responsible for acts and omissions of any assignee.
- (g) ThPA may, by notice in writing to the Contractor, assign its rights, transfer its obligations or renew the Contract in consultation with any other Entity or other subsidiary of ThPA.

18. Entire Understanding and order for precedence

The Contract and its annexes contain everything the parties have agreed in relation to the Services. Neither party can rely on an earlier written document or any oral communication by or on behalf of another party before this Contract was executed.

DECLARATION

I, the undersignedas a legal representative of the company (if it is a company), hereby declare that I have undertaken to perform the following project:

.....
.....
fromto.....

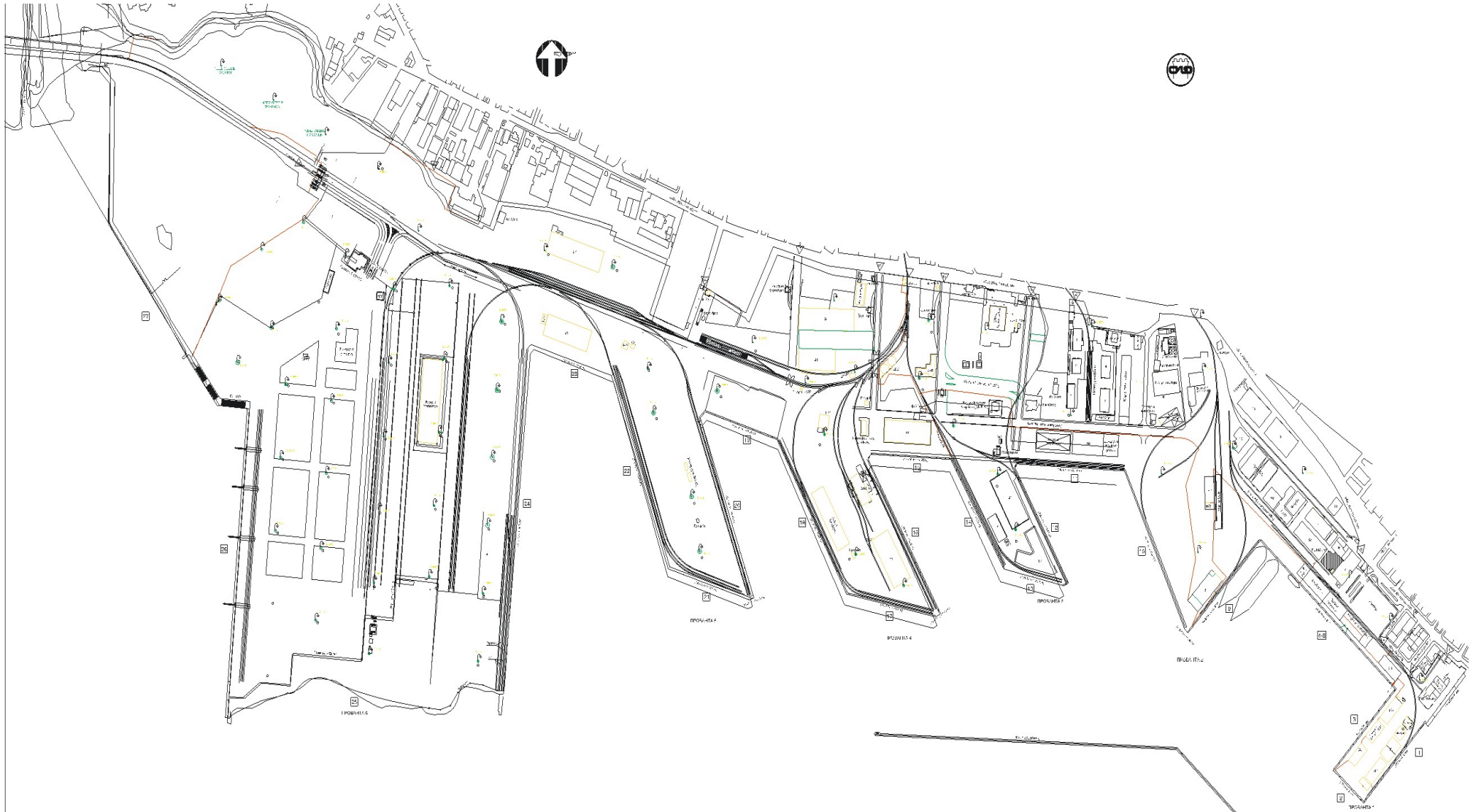
I declare that:

- I bear full responsibility for the health and safety of the employees that I will employ in the above project, as well as full civil and criminal liability for any accident, injury, death or damage caused to ThPA SA, my staff or the staff of ThPA SA or to any third party, due to the above project or in relation to it, by actions of mine or the persons I will employ.
- The employees shall be suitable for this specific work and legally residing in Greece.
- The works shall be supervised by an authorized and adequately trained person
- The above employees shall always wear the Personal Protective Equipment (PPE)
- I bear sole responsibility for any accident that may occur to third parties as a result of the work I perform.
- I shall comply with the legislation and the rules of art for issues of health and safety at work for all employees, either involved or not.
- I have received instructions regarding the special rules of health and safety at work, which apply to ThPA SA
- I have received the guide on health and safety at work. The content thereon is indicative.
- I shall closely follow the requirements of the signage at the indoor and outdoor spaces of ThPA SA
- I shall place the appropriate warning signs for the risks arising from the performance of the above project.
- After the end of the work I shall bring the space back to its previous state.

The Declarant

Thessaloniki,

ANNEX G. – DRAWING OF BUILDINGS



ANNEX H. - PLAN OF LIGHTING POINTS

