GENERAL INVESTMENT DIVISION
PROCUREMENT & INVESTMENT DIVISION

TED 062/2021

CALL FOR OPEN TENDER FOR THE SUPPLY, INSTALLATION & COMMISSIONING OF FOUR HUNDRED TWENTY-FIVE (425) LED FLOODLIGHTS/LUMINAIRES ON THIRTY-TWO (32) THPA SA LIGHTING MASTS AND A LIGHTING CONTROL AND MANAGEMENT SYSTEM

TENDER SUMMARY

OPEN TENDER	
ECONOMIC OPERATOR	**THESSALONIKI PORT AUTHORITY SA** Main activity: Port services Address: Inside the Port of Thessaloniki GR 54625, Thessaloniki Tel.: 2310593121, Fax: 2310510500 Email address: secretariat@thpa.gr Website: http://www.thpa.gr
Deadline for the submission of bids	**15.04.2021**
Deadline for the submission of clarification requests	**08.04.2021**
Award criterion	Most advantageous bid based on price and quality
Contact for information/clarifications	**On the tender procedure** Name: Giorgos Papageorgiou Email: gpapageorgiou@thpa.gr Phone: +302310593305 Name: Paraskevi Theologou Email: ptheologou@thpa.gr Phone: +302310593363 Name: Anastasia Sachinidou Email: asachinidou@thpa.gr Phone: +302310593354 **On technical issues** Name: Anastasia Sachinidou Email: asachinidou@thpa.gr Phone: +302310593354

PART A: GENERAL & SPECIAL TERMS

ARTICLE 1 - Description of the Physical & Financial Object of the Contract

1.1. Physical Object

The object of the tender is the supply, transfer and installation and commissioning of four hundred twenty-five (425) floodlights/luminaires made of die cast aluminum and 450W (±5%), with led lighting sources with narrow beam, on thirty-two (32) lighting masts in the Port as well as of a lighting control and management system, in order to ensure adequate lighting in the outdoor spaces of ThPA SA and, at the same time, save energy by replacing old energy-consuming luminaires.

The object of this tender is divided into the following parts:

Part 1 Supply

It includes the supply of luminaires (complete), their transport to the installation site, the power cables and their connection, as well as the suspension materials to the pillars.

Part 2 Installation

It includes the dismantling of existing old luminaires, the placement of led luminaires on very high pillars of (30-35 m), according to the relevant phototechnical study, the connection of the power cables, the transport of the ring to the pillars, the proper operation tests and the measurement of the phototechnical features of the installation, as provided for in Circular 22/ΔΙΠΑΔ/οικ/1322, **Annex 2,** as amended and currently in force.

1.2. Award Criterion

The award criterion of the supply is the most advantageous bid from a technico-economic perspective, based on the best value for money, estimated on the basis of the price and the following criteria:

1. Technical characteristics - compliance with technical specifications
2. Lifetime of LED luminaires
3. Time of project completion
4. Performance warranty period
5. Aftersales service

ARTICLE 2 - Eligibility - Quality Selection Criteria

2.1 Eligible participants

2.1.1. Participation in the procedure shall be open to natural or legal persons and, in the case of associations of economic operators, their members who have 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 or limited liability companies, 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 No. 98/733/JHA of the Council of the European Union;
  b) corruption, as it is respectively defined in Article 3 of the Council Act dated 26t h May 1997 and in Article 3, paragraph 1 of Joint Action No. 98/742/CFSP of the Council;
  c) fraud in the sense of article 1 of the Convention on the protection of financial interests of the European Communities,
  d) money laundering, according to article 1 of the Council Directive 91/308/EEC of 10 June 1991 on the prevention of the use of the financial system for the purpose of money laundering;
  e) embezzlement (article 375, Criminal Code)
  f) fraud (article 386-388, Criminal Code)
  g) extortion (article 385, Criminal Code)
  h) forgery (article 216-218, Criminal Code)
  i) perjury (article 224, Criminal Code)

j) bribery (article 235-237, Criminal Code)
k) bankruptcy fraud (article 398, Criminal Code)

If interested economic operators participate as an association or joint venture, the above requirements shall be met by every member of the joint venture.

In case of a Joint Venture or an Association, its members shall be jointly and severally liable towards the contracting entity.

2.1.3. The associations of economic operators, including any temporary partnerships, are not required to assume a specific legal form to submit an offer. The selected Joint Venture or Association of Suppliers may be required to assume a specific legal form to the extent that the specific legal form is necessary for the proper execution of the contract.

2.1.4. When a bid is submitted by an association of economic operators, all its members are liable against the contracting authority, jointly and severally.

2.2 Qualitative Selection Criteria - Quality Assurance Standards

2.2.1. The manufacturer of the offered luminaires shall comply with the quality assurance standards CE, RoHS, EMC, LVD, ENEC, ENEC+ for the design, manufacture and trade of luminaires.

2.2.2. Participants shall comply with the quality assurance standards:

ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 or ELOT 1801:2008 (OHSAS 18001:2007) and ISO 50001:2018 for an activity related to the object of the Tender.

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

2.3 Technical & Professional Capacity

Participants shall cumulatively meet the following minimum technical - professional capacity requirements:

- ✓ They shall be manufacturers of the luminaires provided or official representatives of the manufacturers or have the manufacturer's assurance that he will cover any failure that may occur during the period of validity of the performance guarantee of the luminaires, directly to ThPA SA.
- ✓ They shall be involved in an approved alternative management system for WEEE (waste electrical and electronic equipment).
- ✓ They shall be registered in the National Producers Register (EMPA) of the National Recycling Organization, with an approved Producer Register Number (AMP) by a Ministry-approved system.
- ✓ They shall have know-how and experience in implementing related contracts, which can be adequately documented and in particular have experience in the provision of supply and installation of related systems.
- ✓ They shall employ an Electrical Engineer holding the corresponding Work License granted by TEE (TCG) and proven professional experience in related outdoor led lighting projects (luminaires or lamps). (Reference list of related projects).

ARTICLE 3 – Provision of Clarifications on the Call

Clarification requests are submitted electronically at the ThPA SA Procurement Department at asachinidou@thpa.gr and ptheologou@thpa.gr with a copy to gpapageorgiou@thpa.gr five (5) working days before expiry of the deadline for submitting bids at the latest. Clarification requests submitted in other forms shall not be examined.

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

ARTICLE 4 - Bid submission modalities & time

Bids are submitted by the economic operators during business days and hours, by no later than 15.04.2021 at 15:00 in Greek, not subject to terms, conditions, provisos or reservation as follows:

a) Address for bid submission/dispatch:

Thessaloniki Port Authority, S.A.
Administration Division – Secretariat Department,
Technical Service building (in the Port)
GR 54012 Thessaloniki

After the closing date and time, it will no longer be possible to submit bids. Bids submitted late shall be returned.
b) on the same day, samples of the tendered items, which will be sent/submitted to the address:

Thessaloniki Port Authority, S.A.
Administration Division – Secretariat Department,
Technical Service building (in the Port)
GR 54012 Thessaloniki

ARTICLE 5 – Tender extension, amendment, completion or annulment

ThPA SA holds the right to extend the bid submission deadline, cancel the award procedure or decide to repeat it at any stage without any liability, cost or penalty, following a decision of its competent body. THPA SA also reserves the right, in a transparent manner, to amend the terms of the procedure.

ARTICLE 6 – Bid Validity Period

The submitted bids are valid and bind the participants for a period of **one hundred and twenty (120) days** from the expiry of the deadline for their submission.
The validity of the bid may be extended, if requested by ThPA SA, prior to its expiry, for a maximum period of time equal to the initial bid validity period specified in the Call.

ARTICLE 7 – Bid content

The elements of the bid are defined as follows:
(a) Participation documents
(b) Technical bid
(c) Financial bid
(d) one electronic storage medium (usb) with the contents of the above a,b,c

ARTICLE 8 – Participation Documents

To prove that they fulfil the eligibility criteria, the economic operators submit the following 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) Certificates of Quality Assurance ISO 9001:2015, ISO 14001:2015 ISO 45001:2018 or ELOT 1801:2008 (OHSAS 18001:2007) and ISO 50001:2018 or other equivalent of the participant, issued by a recognized Institute or Organization 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 and will be relevant to the object of the Tender.

- To prove their technical and professional capacity, they shall produce the following:

  A) A certificate from the manufacturer stating that they are official representatives of the tendered items in Greece, or a certificate stating that the manufacturer will cover any failure that may occur during the period of guarantee of the luminaires, directly to ThPA SA. If the manufacturers are the same, a solemn statement accompanied by a certificate in force by the relevant Chamber.

  B) A certificate of registration in an approved WEEE alternative management system (waste electrical and electronic equipment).

  C) A certificate of registration in the National Producers Registry (EMPA) of the National Recycling Organization, with an approved Producer Register Number (AMP) 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 bid, 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 the case when an economic operator wishes to rely on the capabilities of other operators to prove it will have the necessary means at its disposal, it must produce a relevant written commitment by these operators to this end.
- Table of related projects of the last three years (2018, 2019, 2020).
- They shall employ an Electrical Engineer holding the corresponding Work License granted by TEE (TCG) and proven professional experience in similar outdoor led lighting projects (luminaires or lamps).(Reference list of related projects)
- Information document on the processing of personal data, within the meaning of Article 13, GDPR 679/2016, signed by the Candidate.

ARTICLE 9 – Technical bid

The Technical bid shall necessarily include a full and binding technical description of the equipment.
In addition, it shall be accompanied by the following documents:
(a) A Technical bid table, according to the following template

(a)

Technical bid table						
S/N	Code No.	Unit	Quantity	Manufacturer	Type/ Model	Luminaire manufacturing unit/ Installation site

(b) A Compliance table according to the attached template (Annex C) 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 per area with the specifications of the minimum luminance levels, as set out in Article 6 of the technical terms.
(f) Test report by the LED manufacturer for their certification according to LM80-08 standard.
(g) Service certificate after the sale of the products and technical assistance by the supplier and the manufacturer.
(h), CE certificates that will bear the name of the final product manufacturer or his authorized representative, who are exclusively responsible for the handling of products in the EU market according to EMC 2014/30/EU LVD 2014/35/EU in order to guarantee their safe operation and their compliance with the following EU safe operation standards: EN 55015, EN 65547, EN 61000-3-2, EN 6100-3-3, EN 60598-1, EN 62471.
(i) Statement of the manufacturer of the final tendered products, 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 necessary technical brochures for bid evaluation.
(m) Official list (prospectus) of the participant evidencing that the tendered luminaire/lamp is on his list and is one of the main types of his activity and will be published on the official website of the company of the tenderer allowing ThPA SA to verify easily their authenticity.
(n) Information note of the tenderer regarding its premises and its permanent staff or associates.
(n) Solemn statement of Law 1599/1986 stating that the participant will provide spare parts for at least five (5) years from the expiry date of warranty time.
(o) Solemn statement of Law 1599/1986 appointing the Safety Engineer of the project.
(p) Phototechnical design i.e. the number of luminaires set for each mast according to the Call and attached representation sketch of the mast. (Annex IV)

ARTICLE 10 – Financial Bid

The financial bid shall be formulated in accordance with the attached template (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, within the meaning of article 15.4 hereof;
c) the period of validity of the performance guarantee, according to article 15.6.1 hereof.
d) 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 procedure is Greek and English. All details of the bids shall be either in Greek or English (if they are drafted in the language of their country of origin) and accompanied by an official translation into one of the above languages. In case of discrepancy, the translation into one of the tender languages shall prevail.

ARTICLE 12 – Bid Opening & Evaluation

The opening of bids 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 clarification 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 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). The criterion accounts for 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 provider of the luminaires (if they are different companies). Therefore, in order to qualify the candidate contractor with regard to this criterion, he must provide a clear warranty for the LEDs 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 warranty period of LED luminaires will obtain the highest score (120). The participants who offer a delivery time equal to the minimum time required in the tender (90,000 hours) will obtain the lowest score (100). Any participants with intermediate delivery times will receive a score that corresponds proportionally to the maximum and minimum scores compared to the time intervals offered, with a linear gradation. The criterion accounts for 20%.
Criterion K3 - Time for completion of the supply and installation: The third scoring criterion is the time for completion of the supply and installation of the luminaires.

The minimum time for completion of the supply and installation of the luminaires has been set in the requirements of the current tender. If one of the participants in the tender offers less time than the minimum required, then he will receive an increased score for this criterion. In particular, participants with the shortest time for completion of the supply and installation of the luminaires will obtain the highest score (120). Those who offer a delivery time equal to the minimum required in the tender receive the minimum score (100). Any participants with intermediate delivery times will receive a score that corresponds proportionally to the maximum and minimum scores compared to the time intervals offered, with a linear gradation. The criterion accounts for 15%.

Criterion K4 - Period of validity of the performance guarantee: The minimum period of validity of the performance guarantee 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 one of the participants in the tender offers a longer period of validity of the performance guarantee, then he will receive an increased score for this criterion. Specifically, participants with the longest period of validity of the performance guarantee will receive the maximum score (120). Those who offer a period of validity of the performance guarantee equal to the minimum required in the tender (5 years) receive the minimum score (100). Any participants with good performance guarantee times between the maximum and the minimum will obtain a score corresponding proportionally to the highest and lowest score compared to the offered time periods, with linear grading. The criterion accounts for 15%.

Criterion K5 - Aftersales service Aftersales support is related to the time of response and replacement 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, with the respective specifications, at this time, the possibility of supplying spare parts in cases of damages for which ThPA SA bears responsibility for their replacement. 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 bid 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 obtain the highest score (120), while the lowest score will be awarded to the bidders who cannot document the above. The criterion accounts for 20%.

The weighted score for each criterion will be derived from the product of the individual weighting coefficient on its score and the total bid 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.

$$L = \frac{\textbf{Bid price}}{\textbf{Final score of technical bid}}$$

ARTICLE 14 - Contract – Amendments

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

The contract may be modified during its term, without the need for a new contract procedure, only upon the mutual agreement of the parties.

ARTICLE 15 – Special Terms for the performance of the procurement

15.1 Performance bond

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 event of a breach of the terms of the contract, as specifically stated in the contract.

The performance guarantee concerning the contract covers in total and without exceptions the application of all terms of the contract and any claims of ThPA SA against the contractor.

15.2. Financing - Payment method

The procurement is financed from the regular budget of ThPA SA

The payment of the CONTRACTOR shall be made following the issuance of an invoice within sixty (60) days of its issuance, provided there are not negative remarks during the receipt of the project.

15.3. Price adjustment

The offered prices are considered **fixed and final** and are not subject to any adjustment for any reason and cause until the end of the procurement, taking into consideration the present pandemic conditions 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.

15.4. Time of delivery and installation

The time for completion of the thirty-two (32) lighting masts will be set by the bidders in their bid and will not exceed four (4) months from the date of signing the relevant contract. Installation of the luminaires will take place on working days and hours agreed between the supplier and ThPA SA. The works execution time will not exceed 2 days per pillar.

The project monitoring and receiving Committee, will address the competent Technician of the contractor for any technical matter that arises during the supply.

In case of late delivery, a 1% penalty on the contractual price shall apply for each day of delay up to a maximum of 5%.

15.5. Receipt - Tests

After informing the Contractor in writing about the completion of the above project, the monitoring and acceptance Committee will proceed to the acceptance procedure consisting of a quantitative and qualitative inspection, the check of the placement and the tightening and locking of luminaires on each lighting mast separately.

Following this, the Contractor will conduct, in the presence of the Committee, a photometry and photometric study with the results of the measurements in order to verify compliance with the minimum requirements. (par. 6. of Part B of the Technical Conditions.

The above tests will be carried out at the risk and expense of the Contractor.

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 - of our department, to avoid potential discrepancies.

After the successful completion of checks and tests, without negative remarks, the competent body of ThPA SA will draft the relevant Reception Protocol.

15.6. Good performance warranty

15.6.1 Performance Warranty 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 period of the guarantee, the contractor is responsible for the proper operation of the luminaires and shall remedy any damage or malfunction resulting from a defective construction or a defective material.

If the system is replaced, the period of guarantee shall be extended accordingly.

15.6.2 Performance warranty bond

After the completion of the project, a Letter of 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 expiry of the warranty period.

In the event of non-compliance of the contractor with his contractual obligations, the committee shall recommend 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, upon decision of the competent body following an opinion by the Committee, its replacement with another one may be approved, with the latter being in accordance with the terms of the contract, within a fixed deadline set out in the relevant 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 does not 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 shall, using its own crew (safety engineer, technicians, electricians, auxiliary staff and all the necessary tools) disconnect from the network and remove the existing luminaires and deliver in full operation the new ones.

2. The Contractor's obligations also include:

I. The transport of the new luminaires to the 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.

III. The cleaning, repair and cold galvanizing paint of the point of the rim where the new luminaire will be mounted, when necessary.

3. Prior to commencement of works, the Contractor is obliged to check the resistance of the lifting-lowering system of the moving ring of every mast consisting of wire rope with the hoist and three (3) wire ropes inside the mast, as compared to the weight of the LED luminaires that will be placed, in order to achieve the horizontal flatness of the ring and guarantee resistance, safe operation after mounting and installing the new luminaires.

The Contractor is obliged to produce a certificate certifying all the above, signed by the Mechanical Engineer or a certified manufacturer of similar lighting masts (up to 35m-high masts).

4. In addition, the Contractor shall deliver a table indicating the number of new luminaires per lighting mast.

5. During the warranty period, the Contract is liable for every defect, failure or unjustified damage of the installation.

The warranty services are offered free of charge and, in this context, the Contractor undertakes to:

I. The replacement of any material that may present manufacturing problems throughout the warranty period (the above works include the lifting-lowering of the pillar ring).

II. Provision of technical support throughout the warranty period for troubleshooting by phone, email or on-the-spot visits, if required.

6. The Contractor's response time in case of failure shall 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.

7. In any case, 48hours 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.

8. The Contractor shall bear the equipment transport and delivery costs, throughout the warranty period.

9. The technical bid folder of the bidders shall include:

1. Technical description (in Greek or in English) that will make reference and answer to every paragraph of the technical terms of Part B of the Call, in a clear and detailed manner in the same order they (the technical terms) are indicated on the Call.
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.

With regard to the technical and professional capacity - experience required under this procurement procedure, the economic operators shall submit a reference list of projects related to the tendered procurement (i.e. supply, installation and commissioning of luminaires in similar or equivalent facilities), that they have either completed or participated in, as members of an association, in the past three (3) years. To prove the above professional capacity, the Contractor, shall under penalty of exclusion, furnish the required performance guarantees.

It is specified that, along with the above detailed technical description, the Contractors is obliged to inform ThPA about the origin of all offered items and provide details about the types and manufacturers and information brochures with all technical characteristics allowing the competent Tender Committee to carry out the technical control of their bid. (under penalty of exclusion).

10. In view of preparing their bids, tenderers may visit the Port facilities where the new equipment will be installed and connected. The competent ThPA SA personnel will provide them any necessary information or assistance.
11. Upon signature of the contract, the Contractor shall produce to ThPA SA a statement appointing the legally competent Engineer who shall be in charge, throughout the duration of the whole project, of monitoring and supervising any constructions, connections and couplings. The statement must also be signed by the appointed Engineer to confirm that he accepts the assignment. Moreover, he will sign the special form of the Service regarding the operation of the construction site in the Port. Throughout the works and until project acceptance, the Contractor and the chief ENGINEER shall take all necessary measures for their staff and third parties at the installation site. Moreover, the Contractor's technical staff will have the appropriate professional licenses for electrical works which will be available to ThPA SA upon request.
The Monitoring and Acceptance Committee shall address any technical issues arising during the contract execution to the legally liable Engineer of the Contractor.
12. The new equipment will be installed within the customs-controlled area of the Port and, as a result, the Contractor shall be aware of and comply with all the rules of this special regime. Also, during installation works, the Contractor shall comply with all the customs provisions on the entry in and exit from the Port of tools and equipment.
13. All works shall be performed in accordance with the Greek and EU regulations on such constructions.
After the end of the works and the completion of the total project, the Contractor will produce 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 (OGB A' 1 41 /201 3).
During the execution of the works, the Contractor will apply all safety measures provided for by the relevant legislation.
The Contractor retains full and sole liability for the suitability, the lawful provision of works and residence in the country of the people employed in the project hereby assigned to him.
14. The Contractor's employees will wear constantly the Personal Protective Equipment,
(PPE), will strictly comply with all signs in the indoor/outdoor ThPA SA and will place warning signs indicating the risks posed by the performance of their works.
15. The Contractor bears the full and sole civil and criminal liability against any accident or damage that may be caused to ThPA SA, its staff, ThPA SA staff or any third party, because or in connection with this project, by actions taken by him or the people he will employee during the performance of the works until the expiry of the Contract. In the case of an accident, the Contractor shall make all necessary notifications.
16. Moreover, the Contractor undertakes to comply with the provisions of law and the rules of the art on health & safety at work for all involved employees or not, including those listed on the ThPA SA Guide for health & safety at work, which came to his knowledge.
17. ThPA SA does not bear any responsibility for any loss of materials, parts, machines and tools of the Contractor, who must ensure that they are adequately and effectively guarded.
18. The Contractor will have all of the employer's responsibilities as regards their work crew, i.e. salaries and main and supplementary social security contributions.
19. At the request of the Contractor, ThPA SA shall supply 380V three-phase current, free of charge.

ARTICLE 18 - Miscellaneous Information

Those interested in drafting a bid, if they so wish, may examine existing lighting masts, to get an immediate view of the works described in this specification.
Any interested party, during the examination of existing lighting masts, shall ask ThPA SA to put them into operation in order to obtain an idea of their situation.
The competent staff of ThPA SA will provide any necessary information or assistance.

PART B: TECHNICAL TERMS

These technical specifications concern the supply, transfer, placement and commissioning of four hundred twenty-five (425) floodlights/luminaires made of die cast aluminum with up to 440W led lighting sources (LED) with asymmetric narrow beam, on thirty-two (32) lighting masts in the Port.
All floodlights/luminaires that the supplier will provide to ThPA SA must be new, undamaged, defect free and meet all the terms of the call and its annexes, specifying the type, maximum electrical power, their technical characteristics, the labelling and the certifications they shall have. All supplies shall 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.

Requirements of up to 450W power LED Floodlights/Luminaires

LED Floodlight/luminaire with asymmetric narrow beam of 70° – 75°, consisting of the following components:

- Floodlight/luminaire units
- The main body of the floodlight/luminaire, accompanied by the equipment for mounting to a moving ring
- The driver
- The light source
- The protective cover of the light source.

Every luminaire will be secured in the suspension ring with a setscrew or chain.
The floodlights/luminaires will all be suitable for lighting outdoor spaces (roads, squares, ports, etc.) and will be accompanied by a suitable mounting device for their mounting on ~30m high pillars with moving rings.
The floodlights/luminaires shall have a spray salt test of at least 700 hours, as per standard EN ISO 9227.
The offered floodlights/luminaires are required to cover all of the following specifications, all of which are essential and important. Failure to comply with any of the specifications below will result in the exclusion of the bidder.

Manufacturing - Product Certificates: E, RoHS, EMC, LVD, ENEC, ENEC+, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 or ELOT 1801:2008 (OHSAS 18001:2007), ISO 50001:2018.

Net luminous flux

The floodlight/luminaire must deliver a net luminous flux of ≥ 45.000 lumen, according to LM79 standard, for a power of 440W.

1. Floodlight units

1.1. The floodlight/luminaire must, for safety reasons, consist of two equivalent units of 225W each.
1.2. Each unit must be equipped with a stand-alone power supply, so it can operate independently.
1.3. Each unit shall be able to be detached independently without affecting the operation of the other unit.

2. Floodlight body

2.1. The body of each floodlight/luminaire shall be made of cast aluminium of high thermal conductivity and fully recyclable.
2.2. Every unit of the floodlight/luminaire will consist of two sections to ensure thermal insulation and easy maintenance. The first will be the section of the optical unit and the second one, the one of the electrical parts with a protective cover stabilized with stainless steel screws (inox). The shell, just like the protective cover must be painted with a special electrostatic paint that makes it particularly resistant to corrosion, at colors picked by the Contracting Authority (all RAL colors will be available).
2.3. For optimal heat dissipation (produced by light source units), the led units should be applied to a special device favouring the natural heat dissipation (cooling device), in order to maximize the lifetime of the lighting units and the floodlight as a whole. To this end, the body of each floodlight/luminaire must be fitted with heat transfer blades (cooling devices) made of cast aluminum, as an integral part of the body of the luminaire, without welding.
2.4. The blades (cooling devices) must be fitted with adequate air gaps, in order to facilitate heat

dissipation while reducing air resistance (reduction of drag coefficient).

2.5. The floodlight/luminaire must be suitable for outdoor use, in temperatures from -40°C to +50°C.

2.6. The protective cover must be opening and remain partially attached to the floodlight/luminaire body with a wire rope of the appropriate cross-section and strength.

2.7. Each unit of the floodlight/luminaire overall must have IP≥66 (EN 60598-2-3) dust and moisture protection and IK=10 (EN 60598-2-3) shock protection.

2.8. All external screws and mounting materials shall be made of stainless steel.

2.9. Each unit of the floodlight/luminaire shall have a transparent protective cover of its optical unit, which shall be watertight and firmly closed and secured, made of polycarbonate material of high strength and transparency and stabilized for ultraviolet radiation and weather conditions. The mounting of the cover shall be made with stainless steel screws (inox).

2.10. The weight of the fully assembled floodlight/luminaire is ≤25kg.

3. Driver

3.1. The floodlight/luminaire shall be equipped with two stand-alone power supplies, one in each unit.

3.2. The power supply (driver) must be located within each unit of the floodlight/luminaire in the upper interior of each unit, in a special spot of the body of each unit, with an aluminum cover and sealed with a special rubber ring, high sealing and tensile strength for protection against adverse weather conditions.

3.3. The power supply of each unit will be connected to the low voltage grid and the rated voltage must be 230V (±10)/50Hz.

3.4. The power supply of each unit of the floodlight/luminaire will have a ≥0,90 power factor.

3.5. There shall be an electrical disconnector in case of maintenance to ensure the protection of the staff.

3.6. Its Electric insulation class must be I or II

4. Optical unit

4.1 The useful life of the LED light sources that make up the optical unit of the floodlight/luminaire must be at least 90,000 hours, at the end of which, their luminous flux should not be degraded by more than 30% -L70 –at a temperature Ts 85^{o}C and an ambient temperature of 25^{o}C (LM80, TM21). The above is certified by the LED manufacturer.

4.2 The maximum number of LED elements shall be, under penalty of exclusion, up to 75 LEDs for each 225W unit, or up to a total of 150 for the two floodlight units of 450W, so that during operation they will not grow high in temperature, in accordance with the requirement of the European Directive on pollutant emissions and eco-design of floodlights /luminaires.

4.3 The optical unit will have a single protective cover (to increase tightness and protection of the optical unit), with multiple-beam lens for a better focus and management of the luminous flow, made of UV stabilized polymeric material. Only the protective covers with integrated lenses, with the additional condition - under penalty of exclusion - that this is one (1) single cover for the entire optical unit of the floodlight/luminaire with integrated lenses will be accepted.

4.4 The LED Chips shall bear, under penalty of exclusion, appropriate by-pass devices to a 1:1 ratio, to ensure that, in the event of failure of one or more of the LEDs, the rest will continue to operate normally.

4.5 The electrical board where the LEDs are placed shall be, under penalty of exclusion, certified as per EN 62031 by an independent accredited testing laboratory according to EN 17025.

4.6 The LEDs of each unit shall operate at a current that does not exceed 1050 mA.

4.7 The optical unit shall have a color rendering index (CRI/Ra) of at least 70.

4.8 The floodlights/luminaires shall have a total energy efficiency equal to or bigger than 110 lm/W, measured at an ambient temperature of 25^{o}C according to the LM 79 standard, based on the total power consumed by the luminaire, including all its components and not only the LEDs.

4.9 The optical unit will have a colour temperature of 5000K (±10%).

5. Protective cover of the optical unit

5.1 For safety reasons, the optical unit shall bear a fixed (not easily opening), transparent, protective polycarbonate cover, of high strength and transparency which is UV-stabilized and weather-resistant.

5.2 Only the protective covers with integrated lens, on the additional condition - under penalty of exclusion - that this is a (1) single cover for the entire optical unit of the floodlight with integrated lenses.

5.3 The dust, moisture and shock protection requirements applicable to the floodlight (IP≥66, IK=10) also include the protective cover.

6. Illuminance

For an optimal distribution of illuminance levels, the installation area of floodlights/luminaires in ThPA SA, was divided into 5 areas, which were further broken down into sub-area A (work support area) and sub-area B (loading/unloading area).

For the lighting model, the ELOT EN 12464-2 Standard will be followed: Light and lighting - lighting of working spaces, Part 2: Outdoor working spaces".

The necessary average illuminance level, measured in lux at 0.8 m from the ground, the maintenance factor 0.8 and after placing all LED floodlights/luminaires on all thirty-two (32) masts, will be divided into:

1. **30 lux** in sub-areas A (work support areas)
2. **40 lux** in sub-areas B (loading/unloading areas with possibility of reading plates)

The Area 1, which is not divided into sub-areas is considered, in terms of illuminance levels, as a sub-area A (**30 lux**).

Given that the lighting masts in this area (Area 1, lighting masts 2a & 3a) are very close to road axes of the city, it is deemed necessary to place on the body of the floodlights that will be installed on these masts, blinds, antiglare blades, leading lights or any other technical solution selected by the Contractor in order to reduce luminous intensity outside the fence neighbouring these road axes. The Contractor shall, according to the instructions of the competent ThPA SA department, proceed to the following interventions at his expense:

The unified glare rating (UGR) shall meet the requirements of Standard EN12464-2, i.e. $GR_L \leq 55$ for the luminaires in Subareas A and B. For verification of the glare rating, GR observers will be placed at random in the middle of the distance between two (2) neighbouring mast of the subarea A and subarea B with -10^o angle of view, 15^o pitch range and 0-360^o angle area.

The attached drawing No. 1 displays the said areas and all the existing thirty-two (32) lighting pillars.

It is specified that the illuminance levels required by the tender concern areas located within 40m from the centre of each mast.

7. Overvoltage protection

To protect the floodlights, an external protection system (SPD) shall be installed in the distribution box of each pillar from voltage fluctuations and peak currents of at least 10 kV.

In order to certify compliance with the technical specifications, the floodlight shall be accompanied by certificates and test reports, in accordance with the relevant directives and standards including a) the Low Voltage Directive LVD 2006/95/EC, b) the Electromagnetic Compatibility Directive EMC 2004/108/EU and c) RoHS, and the standards EN60598-2-3, EN62031, EN62262, EN 62471, EN 62471:62778, IEC TR 62778, IES LM-80-08/IES TM-21-11 and the reports on photometric tests and the photometric files Eulumdat (.LDT) as per EN 13032-4:2015 or Iesna (.IES) as per LM79, by certified photometric measurement laboratories.

The manufacturer/supplier of the floodlights/luminaires shall be involved in an alternative management system in relation to the electrical and electronic equipment waste (WEEE).

Floodlights/luminaires, in addition to the general specifications described above, shall meet, under penalty of exclusion, the special technical characteristics of the following compliance table.

LED Floodlight/Luminaire of up to 450W			
S/N	**Description of Criterion**	**Requirement**	**Compliance certification**
1.	CE Marking (including LVD 2014/95EC and Electromagnetic Compatibility Directive EMC 2014/30/EU)	YES	CE certificate (presentation of the certificate and statement that the test file is at the disposal of the evaluation committee)
2.	Certification of the Manufacturer of the floodlights/luminaires	ISO 9001:2015	Valid certificate
3.	Certification of the Manufacturer of the floodlights/luminaires	ISO 14001:2015	Valid certificate
4.	Certification of the Manufacturer of the floodlights/luminaires	ISO 45001:2018 or ELOT 1801:2008 (OHSAS 18001:2007)	Valid certificate
5.	Certification of the Manufacturer of the floodlights/luminaires	ISO 50001:2018	Valid certificate
6.	Valid certificate of each unit of the floodlight/luminaire as per ENEC	YES	Valid ENEC certificate
7.	Valid certificate of each unit of the floodlight/luminaire as per ENEC+	YES	Valid ENEC+ certificate
8.	Number of stand-alone equivalent floodlight/ luminaire units	Two (2)	Candidate contractor's statement and Data Sheet
9.	Power of each stand-alone floodlight/luminaire unit	Up to 225W	Candidate contractor's statement and Data Sheet
10.	Salt spray-salt fog test for each stand-alone unit of the floodlight/luminaire	≥700 hours	Test report as per EN ISO 9227 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
11.	Color of floodlight/luminaire based on customer's choice (For aesthetic purposes)	YES	Statement of candidate contractor regarding the colors of the body of the floodlight/luminaire he can provide
12.	Transparent cover of the optical unit made of polycarbonate cover of high strength and transparency and UV-stabilized and weather resistant.	YES	Candidate contractor's statement and Data Sheet
13.	Degree of mechanical/shock protection of the transparent cover and the body of the floodlight according to EN 62262-2-3 of each stand-alone unit of the floodlight/luminaire	IK = 10	ENEC Certificate or valid Test report as per EN 62262 from an accredited laboratory according to ISO/IEC 17025
14.	Degree of dust/humidity protection of the transparent cover and the body of the floodlight/luminaire, according to EN 60598-2-3, of each stand-alone unit of the floodlight/luminaire	IP≥66	ENEC Certificate or valid Test Report as per EN 60598-2-3, from an accredited laboratory in accordance with ISO/IEC 17025

15.	Maximum number of LEDs on the floodlight of up to 450W	≤ 150	Candidate contractor's statement and Data Sheet
	Maximum number of LEDs on each stand-alone unit of up to 225W	≤ 75	
16.	The optical system - lens must be integrated in the protective covers on the additional condition - under penalty of exclusion - that this is one (1) single cover for the entire optical unit of the floodlight/luminaire with integrated lenses.	YES	Candidate contractor's statement and Data Sheet
17.	Certification of the board as per EN 62031, under penalty of exclusion	YES	Test report as per EN ISO 62031 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific purpose of the measurement.
18.	By-pass device at the circuit of each led on a led-by-pass ratio 1:1	YES	Manufacturer's statement and Data Sheet
19.	Resistance to a range of ambient temperatures of at least	-40°C to +50°C	Manufacturer's and Candidate Contractor's statement
20.	Resistance to sun / ultraviolet (UV) exposure conditions	YES	Manufacturer's and Candidate Contractor's statement
21.	Resistance of the aluminium body to adverse weather conditions / coastal areas (manufacturer's certificate)	YES	Manufacturer's and Candidate Contractor's statement
22.	Resistance of the external paint of the aluminium body to adverse weather conditions (manufacturer's certificate)	YES	Manufacturer's and Candidate Contractor's statement
23.	Use of Inox screws of the floodlight for resistance to weather conditions	YES	Statement of candidate contractor
24.	Minimum efficiency	≥ 110 lm/W	Test report as per LM79 or EN 13032- 4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
25.	Driver certification according to IEC 61347-2-13, under penalty of exclusion	YES	Driver manufacturer's data sheet
26.	Rated voltage of the floodlight/luminaire VAC	230V ± 10%	Driver manufacturer's data sheet
27.	Power factor of the floodlight/luminaire	≥ 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
28.	LED driving current, mA	≤1050mA	Floodlight/luminaire manufacturer's data sheet

29.	The body of the floodlight/luminaire, under penalty of exclusion, will be exclusively made of die cast aluminium of high thermal conductivity and fully recyclable (RoHS Compliance)	YES	Candidate contractor's statement and Data Sheet
30.	Each unit of the floodlight/luminaire shall have, under penalty of exclusion, a design with built-in blades for better heat dissipation, made of cast aluminium as an integral part of the body of the luminaire, without welding. The blades must be fitted with adequate air gaps, in order to facilitate heat dissipation and at the same time reduce air resistance (drag coefficient)	YES	Candidate contractor's statement and Data Sheet
31.	Number of power supplies per floodlight/luminaire	TWO (one for each stand-alone unit)	Manufacturer's and Candidate Contractor's Statement and Data Sheet
32.	The driver of the floodlight/luminaire must be easily removable to allow maintenance or replacement without the need to fully disassemble the floodlight.	YES	Manufacturer's and Candidate Contractor's Statement and Data Sheet
33.	Total Power of the floodlight/luminaire	Up to 450 W	Test report as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
34.	Rated voltage of each stand-alone unit of the floodlight/luminaire	Each unit up to 225W	Manufacturer's and Candidate Contractor's Statement and Data Sheet
35.	Net luminous flux of the floodlight/luminaire, lm, as per LM79 standard, in toral for 450W floodlights	≥ 46.000 lm	Test report of the floodlight as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
36.	Net luminous flux, lm, as per LM79, for each stand-alone unit of floodlight of up to 225W	≥ 23.000 lm	Test report as of the stand-alone unit of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
37.	Colour Temperature (CCT)	5000 K (±10%)	Test report of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
38.	Color rendering index (CRI)	>70	Test report of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test

39.	Warranty of good operation (in years), minimum	5	Manufacturer's and the candidate contractor's solemn statement
40.	Electric insulation class I or II	YES	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	Photometric files as per EN 13032- 4:2015 or LM79 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
42.	Photobiological testing of floodlight/luminaires according to IEC TR 62778 from an accredited laboratory	YES	Test report as per ISO 62778 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test
43.	Test with regard to luminous flux preservation and LED life, as per IEC LM-80-08/TM-21-11	YES L70 > 90.000 hours	Test report as per IEC LM-80-08/TM-21-11, from the LED manufacturer
44.	The manufacturer and/or supplier of luminaires shall be involved in an approved recycling system for the specific categories of tendered products (WEEE), under penalty of exclusion	YES	Valid official certification for their participation in a WEEE alternative management system approved by the Ministry of Environment and Energy, accompanied by a valid Certificate of registration in the National Producers Register (EMPA), including the Producer Register Number (AMP).
45.	Overvoltage protection	≤10 kV	External overvoltage protection system (SPD) in the distribution box of each pillar

8. LIGHTING CONTROL AND MANAGEMENT SYSTEM

The lighting control and management system will be installed and control both the new and the existing installed LED floodlights on all the lighting masts of the Port.

The floodlights under supply will be remotely managed, controlled and supervised, 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 floodlights.

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 the 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.

8.1. 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 floodlights and/or all (simultaneously) in real-time (real-time), on command from the Software.
- **Off mode:** Disable any group of floodlights and/or all (simultaneously) in real-time, on command by the Software.
- **Schedule mode:** Automatic On/Off of each group of floodlights and/or all (simultaneously) based on a schedule to be set by the user. The schedule can be stored in memory and then control the floodlights autonomously with the help of a clock (Real Time Clock - RTC) and a microcontroller or hardware of similar technology.
- **Sunrise – Sunset mode:** Automatic On/Off of each group of floodlights and/ or all (simultaneously) based on the Sunrise-Sunset algorithm (On at sunset time and Off at sunrise time).

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

3. Alerts: In real-time with immediate alert of possible failure, voltage change, power supply problem, short circuit, etc. and mapping of lighting network

8.2. System Structure

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

1. **Floodlight Team Controller**
   They constitute the basic infrastructure of the System and the devices installed in the 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 bus 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.

8.3 System Architecture

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

- The group controllers group the floodlights into 3 groups in each power supply 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 the tools that may be used, are produced 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 group controllers) will be made by the contractor free of charge.

8.4 Group Controller

The Group Controllers can be placed at the level of the distributor (pillar), to ensure the Remote Management of either the whole or a group of floodlights electrified by the distributor (pillar) in three (3) phases.
The required number of Group Controllers will be determined under the responsibility of the Contractor.
The documents listed on the table below must be submitted under penalty of exclusion at the bid submission stage.

Floodlight Group Controllers		
Description of Criterion	**Requirement**	**Compliance certification**
Communication of Controller of Group of Floodlights	Communication with Remote Management Software: 3G or 4G, with an extra option ethernet or Wi-Fi	Data Sheet of the Floodlight Group Controller

Functions of Controller of Group of Floodlights	- To have a three-phase four-wire meter and measure per phase at least the following: - 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 of the floodlights it monitors and to provide relevant alerts to the Remote Management Software. - The following operation modes can be selected through the Remote Management Software for the Group Controller: A. Activation (on mode) of the group of floodlights connected to the Group Controller in real time, following a relevant command from the Remote Management Software. B. Off mode of the group of floodlights connected to the Group Controller in real time, following a relevant command from the Remote Management Software. C. Turn on/off the group of floodlights connected to the Group Controller based on a schedule (schedule mode). D. Turn on/off the group of floodlights connected to the Group Controller based on the sunrise-sunset algorithm (sunrise-sunset mode).	Data Sheet of the Floodlight Group Controller
Certificates of Group of Floodlights	The Group Controller should have the following certificates and standards: CE, RoHS, EN 61547:2009, EN 55015:2013, EN 301 489-1, ETSI EN 300-220-2	Test Reports for the following standards: EN 61547:2009, EN 55015:2013, EN 301 489-1, ETSI EN 300-220-2

Performance bond	Performance guarantee of at least 5 years for the Group Controllers	Performance Bond Statement of the manufacturer of the Group Controller

8.5 Central Management System (Software)

The management software will remotely monitor and supervise all groups of floodlights per mast, store and display all historical data in one place, and notify you when any problems or faults occur.
The Central Remote Management System must perform the following functions:

Central Management System (Software)		
Description of Criterion	**Requirement**	**Compliance certification**
To be provided as a cloud-web based solution and access will be through any browser (web browser).	YES	Remote Management Software Data Sheet
To show on a map the structure of the Lighting Network: positions of Group Controllers and floodlights, with indications of their characteristics and mode of operation.	YES	
Be able to manage multiple Group Controllers at the same time and be able to apply a different operation mode to them.	YES	
Provide data in the form of tables and/or graphs	YES	
Be able to retrieve and monitor (providing clues and alerts): -The functional status of the floodlight groups per mast (through the possibility of detecting faults provided by the Group Controllers). -The energy consumption parameters as well as the electrical parameters measured / provided by the Group Controllers	YES	

ATTACHED:

1. *Update on the Processing of Personal Data*
2. *SAMPLE FINANCIAL OFFER*
3. *Luminaire/floodlight Compliance Table*
4. *Sketch of groups of areas with lighting masts.*
5. *Table with a representation of masts with the existing luminaires.*

THE MANAGING DIRECTOR - CHIEF EXECUTIVE OFFICER OF ThPA SA

FRANCO NICOLA CUPOLO

ANNEX I

ΕΝΗΜΕΡΩΣΗ ΓΙΑ ΤΗΝ ΕΠΕΞΕΡΓΑΣΙΑ των ΠΡΟΣΩΠΙΚΩΝ ΔΕΔΟΜΕΝΩΝ, κατά το άρθρο 13 του ΓΚΠΔ 679/2016 (*συνοδεύει τα έντυπα των* ***Αιτήσεων Συμμετοχής*** *σε Διαγωνισμούς-Προκηρύξεις-Διακηρύξεις-Προσφορές κλπ της Δνσης Προμηθειών και Επενδύσεων της «ΟΛΘ ΑΕ»*).

Η Ανώνυμη Εταιρεία με την επωνυμία «*Οργανισμός Λιμένος Θεσσαλονίκης*» (*ΟΛΘ Α.Ε., νόμος 2688/99, ΦΕΚ 40Α'/1-3-99*), που εδρεύει στη Θεσσαλονίκη (*Α΄ Προβλήτα, εντός Λιμένος, ΤΚ: 54625, τηλ.: 2310 593 118-121*), όπως νόμιμα εκπροσωπείται, **ενημερώνει** με την παρούσα, και σύμφωνα με τις διατάξεις της κείμενης νομοθεσίας περί προστασίας δεδομένων προσωπικού χαρακτήρα, και ιδιαιτέρως του Γενικού Κανονισμού ΕΕ 679/2016, **υπό την ιδιότητά της ως «Υπεύθυνος Επεξεργασίας»**, το φυσικό πρόσωπο (*εφεξής καλούμενο «Υποκείμενο των Δεδομένων»*), που υπογράφει την Αίτηση Συμμετοχής, την Προσφορά ή άλλο, παρόμοιου σκοπού, έντυπο της Δνσης Προμηθειών και Επενδύσεων της «ΟΛΘ ΑΕ», και υποβάλλει τα προβλεπόμενα δικαιολογητικά, **είτε** για τον εαυτό του και ως εκπρόσωπος ατομικής επιχείρησης, **είτε** ως Φ.Π. - νόμιμος εκπρόσωπος του συμμετέχοντος στη διαδικασία νομικού προσώπου, **είτε** με άλλη παρόμοια ιδιότητα νομιμοποίησης, ότι η ίδια η «ΟΛΘ ΑΕ» και οι αρμόδιες Υπηρεσίες-Διευθύνσεις-Τμήματα αυτής (*όπως και οι υπάλληλοί της, που ενεργούν υπό την εποπτεία της, κατ' εντολή και για λογαριασμό της και στα πλαίσια των αρμοδιοτήτων τους, πιθανόν δε και άλλοι ως από κοινού «Υ.Ε.», «Εκτελούντες την Επεξεργασία», τρίτοι ή αποδέκτες: υπόλοιποι μετέχοντες στη διαδικασία, υπουργεία, δημόσιες αρχές, ΔΟΥ, δικαστικές αρχές κλπ, βάσει συμμόρφωσης με έννομη υποχρέωση του «Υπευθύνου Επεξεργασίας» ή σε εκπλήρωση καθήκοντος του ή για εκτέλεση σύμβασης*), **συλλέγει, επεξεργάζεται και τηρεί** τα προσωπικά δεδομένα που αναφέρονται στην Αίτηση Συμμετοχής, στην Προσφορά ή σε άλλο παρόμοιου σκοπού έντυπο της Δνσης Προμηθειών και Επενδύσεων της «ΟΛΘ ΑΕ», και στα συνοδευτικά αυτών έγγραφα, τα οποία αυτοβούλως υποβάλλει στην «ΟΛΘ ΑΕ» το «Υποκείμενο των Δικαιωμάτων», είτε για λογαριασμό του (*ατομική επιχείρηση*) είτε για λογαριασμό του Ν.Π. που το ίδιο εκπροσωπεί.

Τα δεδομένα αυτά θα χρησιμοποιηθούν για τις ανάγκες διεκπεραίωσης της Αίτησης Συμμετοχής, της Προσφοράς ή όποιου άλλου με παρόμοιο σκοπό εντύπου της Δνσης Προμηθειών και Επενδύσεων της «ΟΛΘ ΑΕ». Σκοπός της επεξεργασίας μπορεί να είναι: η αξιολόγηση της Αίτησης/Προσφοράς κλπ, ο έλεγχος των στοιχείων του «Υποκειμένου» ή της εταιρείας που αυτό εκπροσωπεί, που η διαδικασία απαιτεί, η αξιολόγηση της καταλληλόλητας του «Υποκειμένου» ή της εταιρείας που αυτό εκπροσωπεί, ως υποψήφιου αντισυμβαλλόμενου της προς σύναψη σύμβασης με την «ΟΛΘ ΑΕ» ή στα πλαίσια πρόθεσης σύναψης σύμβασης (*άρθρο 6 παρ.1β ΓΚΠΔ ΑιτΣκ 44*). Περαιτέρω, η «ΟΛΘ ΑΕ» επεξεργάζεται τα εν λόγω δεδομένα για να επικοινωνεί με το «Υποκείμενο», όποτε το κρίνει απαραίτητο, για ζητήματα σχετικά με την διαδικασία, και για την εναρμόνιση της «ΟΛΘ ΑΕ» με τις επιταγές του Κανονισμού και του νόμου (*συμμόρφωση με έννομη υποχρέωσή του, άρθρο 6 παρ.1γ' ΓΚΠΔ*. Τα δεδομένα αυτά διατηρούνται στο αρμόδιο Τμήμα Προμηθειών **για το απαραίτητο χρονικό διάστημα ελέγχου της Αίτησης/Προσφοράς κλπ, και των υποβαλλόμενων δι'αυτών στοιχείων, για το χρονικό διάστημα διεκπεραίωσης της διαδικασίας, για το χρονικό διάστημα υποβολής τυχόν ενστάσεων και λοιπών ενδίκων μέσων και βοηθημάτων, που δυνατόν να προβλέπονται εσωτερικά ή από τη νομοθεσία, για το χρονικό διάστημα εκπλήρωσης των εκατέρωθεν υποχρεώσεων και παραγραφής των εκατέρωθεν αξιώσεων και γενικά για όσο απαιτείται από το γράμμα και το πνεύμα του Κανονισμού Ανάθεσης Υπεργολαβικών Συμβάσεων και Προμηθειών και της σχετικής νομοθεσίας και των συμβάσεων που διέπουν τη λειτουργία της «ΟΛΘ ΑΕ», όπως αυτά εκάστοτε ισχύουν**. Κατόπιν αρχειοθετούνται, είτε έγχαρτα είτε ηλεκτρονικά, με τρόπο που δεν παρέχει πρόσβαση σε μη εξουσιοδοτημένους υπαλλήλους. Προβλέπεται η ασφαλής καταστροφή τους μετά την πάροδο του απαραίτητου χρονικού διαστήματος, όπως ορίζει η οικεία νομοθεσία (*για την περίοδο μέχρι την 23-3-2018 ισχύουν οι ρυθμίσεις του άρθρου 191 §2 του Ν.4610/2019 (Α΄70) για την περίοδο μετά το χρονικό αυτό σημείο και τη μετατροπή του «Υπευθύνου Επεξεργασίας» σε ΑΕ, ισχύει η απώτατη παραγραφή του Αστικού Κώδικα*). Η παροχή των δεδομένων αυτών είναι απαραίτητη για την παρούσα διαδικασία και, αν δε δοθούν από το «Υποκείμενο των Δεδομένων», η σχετική υπηρεσία δεν θα είναι δυνατή ούτε και η συμμετοχή του «Υποκειμένου» στη διαδικασία.

Το «Υποκείμενο των Δεδομένων» έχει δικαίωμα υποβολής αιτήματος στον «Υπεύθυνο Επεξεργασίας» για: πρόσβαση-ενημέρωση, διόρθωση, περιορισμό επεξεργασίας των δεδομένων που το αφορούν, αντίταξη στην επεξεργασία καθώς και για τη διαγραφή και τη φορητότητα, **πάντα υπό τους όρους και τους περιορισμούς της κείμενης νομοθεσίας** (*πχ 17 παρ.3, 20 παρ.3, 23 ΓΚΠΔ)*. Τα δικαιώματα αυτά ασκούνται είτε με τη συμπλήρωση της αντίστοιχης αίτησης-φόρμας που υπάρχει διαθέσιμη **στο Πρωτόκολλο και στη Δνση Προμηθειών και Επενδύσεων** της «ΟΛΘ ΑΕ», είτε με αποστολή επιστολής στη διεύθυνση: *«ΟΛΘ ΑΕ», Α΄ Προβλήτα, εντός Λιμένος, ΤΚ: 54625, Θεσσαλονίκη, τηλ.: 2310 593118-121*, είτε με ηλεκτρονικό μήνυμα στη διεύθυνση: dpo@thpa.gr. Ο «Υπεύθυνος Επεξεργασίας» παρέχει στο «Υποκείμενο των Δεδομένων» πληροφορίες για την ενέργεια που πραγματοποιείται κατόπιν αιτήματος, δυνάμει των άρθρων 15 έως 22 ΓΚΠΔ χωρίς καθυστέρηση και σε κάθε περίπτωση **εντός μηνός** από την παραλαβή του αιτήματος. Η εν λόγω προθεσμία **μπορεί** να παραταθεί κατά δύο ακόμη μήνες, εφόσον απαιτείται, λαμβανομένων υπόψη της πολυπλοκότητας του αιτήματος και του αριθμού των αιτημάτων (*βλ. αναλυτικότερα: άρθρο 12 παρ. 3-4 ΓΚΠΔ* Επίσης, για τυχόν καταγγελία, το "Υποκείμενο των Δεδομένων" έχει το δικαίωμα να απευθυνθεί στην **Αρχή Προστασίας Δεδομένων Προσωπικού Χαρακτήρα** είτε εγγράφως (*δνση: Κηφισίας 1-3, Τ.Κ. 115 23, Αθήνα*) είτε με ηλεκτρονικό μήνυμα (www.dpa.gr).

Θεσσαλονίκη, ___ /___ /20___ *ΕΚΔΟΣΗ 7ης/2020*

Ελαβα γνώση της παρούσης Ενημέρωσης (*υπογραφή και ολογράφως*):

ANNEX B - <u>TEMPLATE OF FINANCIAL BID</u>

		Thessaloniki Port Authority, S.A.			
		FINANCIAL BID FORM			
		Project Title: "*Supply of led energy-saving luminaires*"			
S/N	**Description**	**Type of offered item**	**Pcs**	**Unit Price without VAT [€]**	**Subtotal without VAT [€]**
1	LED Floodlight/luminaire of up to 450W, suitable for the illumination of large surfaces from 35m high pillars				
2	Placement of LED luminaires of Up to 450W pillars of great height (30-35 m)				
3	Group Controllers with three-phase four-wire meter				
4	Development, installation, configuration of central light control system				
	Total [pcs]			**Total [€]**	
				VAT 24% [€]	
				Grand total	

a) Time of bid validity……

b) Time of delivery…….

c) Time of guaranteed proper operation……..

Place

Date

The bidder

(Name, Surname & Stamp)

ANNEX C – Luminaire /Floodlight Compliance Table

LED Luminaire /Floodlight of power up to 450W				
S/N	**Description of Criterion**	**Requirement**	**Compliance certification**	**Compliance reference**
1.	CE Marking (including LVD 2014/95EC and Electromagnetic Compatibility Directive EMC 2014/30/EU)	YES	CE certificate (presentation of the certificate and statement that the test file is at the disposal of the evaluation committee)	
2.	Certification of the Manufacturer of the floodlights/luminaires	ISO 9001:2015	Valid certificate	
3.	Certification of the Manufacturer of the floodlights/luminaires	ISO 14001:2015	Valid certificate	
4.	Certification of the Manufacturer of the floodlights/luminaires	ISO 45001:2018 or ELOT 1801:2008 (OHSAS 18001:2007)	Valid certificate	
5.	Certification of the Manufacturer of the floodlights/luminaires	ISO 50001:2018	Valid certificate	
6.	Valid certificate of each unit of the floodlight/luminaire as per ENEC	YES	Valid ENEC certificate	
7.	Valid certificate of each unit of the floodlight/luminaire as per ENEC+	YES	Valid ENEC+ certificate	
8.	Number of stand-alone floodlight/ Luminaire units	Two (2)	Candidate contractor's statement and Data Sheet	
9.	Power of each stand-alone floodlight/luminaire unit	Up to 225W	Candidate contractor's statement and Data Sheet	
10.	Salt spray-salt fog test for each stand-alone unit of the floodlight/luminaire	≥700 hours	Test report as per EN ISO 9227 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
11.	Color of floodlight/luminaire based on customer's choice (for aesthetic reasons)	YES	Statement of candidate contractor regarding the colors of the body of the floodlight/luminaire he can provide	
12.	Transparent cover of the optical unit made of polycarbonate cover of high strength and transparency and UV-stabilized and weather resistant.	YES	Candidate contractor's statement and Data Sheet	
13.	Degree of mechanical/shock protection of the transparent cover	IK = 10	ENEC Certificate or valid Test report as per EN 62262	

	and the body of the floodlight according to EN 62262-2-3 of each stand-alone unit of the floodlight/luminaire		from an accredited laboratory according to ISO/IEC 17025	
14.	Degree of dust/humidity protection of the transparent cover and the body of the floodlight/luminaire, according to EN 60598-2-3, of each stand-alone unit of the floodlight/luminaire	IP≥66	ENEC Certificate or valid Test Report as per EN 60598-2-3, from an accredited laboratory in accordance with ISO/IEC 17025	
15.	Maximum number of LEDs on the floodlight of up to 450W	≤ 150	Candidate contractor's statement and Data Sheet	
	Maximum number of LEDs on each stand-alone unit of up to 225W	≤ 75		
16.	The optical system - lens must be integrated in the protective covers on the additional condition - under penalty of exclusion - that this is one (1) single cover for the entire optical unit of the floodlight/luminaire with integrated lenses.	YES	Candidate contractor's statement and Data Sheet	
17.	Certification of the board as per EN 62031, under penalty of exclusion	YES	Test report as per ISO 62031 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
18.	By-pass device at the circuit of each led on a led-by-pass ratio 1:1	YES	Manufacturer's statement and Data Sheet	
19.	Resistance to a range of ambient temperatures of at least	-40°C to +50°C	Manufacturer's and Candidate Contractor's statement	
20.	Resistance to sun / ultraviolet (UV) exposure conditions	YES	Manufacturer's and Candidate Contractor's statement	
21.	Resistance of the aluminium body to adverse weather conditions / coastal areas (manufacturer's certificate)	YES	Manufacturer's and Candidate Contractor's statement	
22.	Resistance of the external paint of the aluminium body to adverse weather conditions (manufacturer's certificate)	YES	Manufacturer's and Candidate Contractor's statement	
23.	Use of Inox screws of the floodlight for resistance to weather conditions	YES	Statement of candidate contractor	
24.	Minimum efficiency	≥ 110 lm/W	Test report as per LM79 or EN 13032- 4:2015 from an accredited laboratory in accordance with ISO/IEC	

			17025 for the specific test	
25.	Driver certification according to IEC 61347-2-13, under penalty of exclusion	YES	Driver manufacturer's data sheet	
26.	Rated voltage of the floodlight/luminaire VAC	230V ± 10%	Driver manufacturer's data sheet	
27.	Power factor of the floodlight/luminaire	≥ 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	
28.	LED driving current, mA	≤1050mA	Floodlight/luminaire manufacturer's data sheet	
29.	The body of the floodlight/luminaire, under penalty of exclusion, will be exclusively made of die cast aluminium of high thermal conductivity and fully recyclable (RoHS Compliance)	YES	Candidate contractor's statement and Data Sheet	
30.	Each unit of the floodlight/luminaire shall have, under penalty of exclusion, a design with built-in blades for better heat dissipation, made of cast aluminium as an integral part of the body of the luminaire, without welding. The blades must be fitted with adequate air gaps, in order to facilitate heat dissipation and at the same time reduce air resistance (drag coefficient)	YES	Candidate contractor's statement and Data Sheet	
31.	Number of power supplies per floodlight/luminaire	TWO (one for each unit)	Manufacturer's and Candidate Contractor's Statement and Data Sheet	
32.	The driver of the floodlight/luminaire must be easily removable to allow maintenance or replacement without the need to fully disassemble the floodlight.	YES	Manufacturer's and Candidate Contractor's Statement and Data Sheet	
33.	Total Power of the floodlight/luminaire	Up to 450 W	Test report as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC	

			17025 for the specific test	
34.	Rated voltage of each stand-alone unit of the floodlight/luminaire	Each unit up to 225W	Manufacturer's and Candidate Contractor's Statement and Data Sheet	
35.	Net luminous flux of the floodlight/luminaire, lm, as per LM79 standard, in toral for 450W floodlights	≥ 46.000 lm	Test report of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
36.	Net luminous flux, lm, as per LM79, for each stand-alone unit of floodlight of up to 225W	≥ 23.000 lm	Test report as of the stand-alone unit of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
37.	Colour Temperature (CCT)	5000 K (±10%)	Test report of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
38.	Color rendering index (CRI)	>70	Test report of the floodlight, as per LM79 or EN 13032-4:2015 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
39.	Warranty of good operation (in years), minimum	5	Manufacturer's and the candidate contractor's solemn statement	
40.	Electric insulation class I or II	YES	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	Photometric files as per EN 13032- 4:2015 or LM79 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
42.	Photobiological testing of floodlights/luminaires according to IEC TR 62778 from an accredited laboratory	YES	Test report as per ISO 62778 from an accredited laboratory in accordance with ISO/IEC 17025 for the specific test	
43.	Test with regard to luminous flux preservation and LED life, as per IEC LM-80-08/TM-21-11	YES L70 > 90.000 hours	Test report as per IEC LM-80-08/TM-21-11, from the LED manufacturer	

44.	The manufacturer and/or supplier of luminaires shall be involved in an approved recycling system for the specific categories of tendered products (WEEE), under penalty of exclusion	YES	Valid official certification for their participation in a WEEE alternative management system approved by the Ministry of Environment and Energy, accompanied by a valid Certificate of registration in the National Producers Register (EMPA), including the Producer Register Number (AMP).	
45.	Overvoltage protection	≤10 kV	External overvoltage protection system (SPD) in the distribution box of each pillar	

ANNEX D- SKETCH OF GROUPED AREAS

ANNEX E- MAST REPRESENTATION TABLE