



INVITATION FOR BID

AEPA IFB #017-A ATHLETIC FACILITY LIGHTING

PART B – SPECIFICATIONS

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1. Scope of Bid

AEPA is seeking qualified, experienced contractor(s) who possess the necessary resources and capabilities to acquire, deliver and perform the required supplies, materials equipment and labor to all 26 member states necessary to:

Respond to request from a number of different types of educational, governmental and public institutions seeking athletic, recreational, activity and general public event facility indoor and outdoor lighting solutions.

Types of public facilities/complexes and events/activities may include but is not limited to: athletic (multi-purpose, football, soccer, hockey, basketball, volleyball, tennis, baseball/softball, track and Field, etc.); public (golf courses, parks, playgrounds, swimming pools/waterparks, skateboard parks, open space theaters, campgrounds, rodeo/horse arenas, convention, exhibit and visitor areas, etc.); and related areas (parking lots, grandstands, concessions areas, walkways, etc.)

Types of products and services may or may not include, but are not limited to: assessing and evaluating existing facilities/lighting systems and/or new project sites; designing, engineering and developing project specific lighting solutions; obtaining, manufacturing, delivering, constructing/erecting and making operational the provided lighting solution; and maintenance, repair, renovate and replace existing lighting systems.

Please Note the Following:

Due to a number of the entities that may utilize the resulting contracts of this solicitation may possess their own available construction resources and that various state and local jurisdictions' procurement and construction laws, regulations, codes and requirements differ AEPA for the purpose of this solicitation has established the following three lots.

Lot 1: Provider of turn-key indoor/outdoor facility light solutions that includes all of the products and services noted above (Types of products and services).

Lot 2: Provider of indoor/outdoor facility lighting evaluation, troubleshooting, maintenance, repair and adjusting products and services for existing lighting systems.

Lot 3: Provider of indoor/outdoor facility lighting products (supplies, materials, wiring, fixtures, poles, controls, equipment, accessories, etc.) and if requested consulting services (system design/configuration, engineering and technical support). No construction services can be provided under this lot.

Due to the potential that any project site/project performed under any resulting contract based on this solicitation will be located within various AEPA Member states and must adhere to and comply with a number of different federal, state and local governing authorities'/jurisdiction's rules, regulations, codes and other requirements. The Offeror/Contractor is forewarned and will be held accountable/responsible for performing and researching each AEPA's Member state's jurisdiction's requirements where they will be providing products and performing services to ensure their products and services proposed and offered in response to this solicitation meet or exceed all requirements. Areas to be considered may or may not include: construction laws, codes and regulations, building/electrical codes (lighting control requirements, restrictions, calculations, safety requirements, dark sky/light pollution laws, etc.), environmental conditions (weather wind/temperature etc.), physical site conditions (surrounding areas/facilities, soil, subsurface, geotechnical, structural, available power sources, etc.), facility type/purpose/application (athletic, recreational, activity, etc.), and energy usage/performance (lighting fixtures, reflectors, optics, lumens/output, energy savings)

The Offeror/contractor based on their review of this solicitation document, their own investigation and research into the above noted lots and areas to be addressed will need to determine which lot and/or lots they are qualified for and capable of providing the products and services they will be responding to. It should note that AEPA Member states prefer providers/contractors that can provide and/or perform the scope of work and meet the specifications indicated within each lot noted above and the specifications herein. However, it is also recognized that there are providers/contractors that may specialize in only one of the lots and are encouraged to respond to an individual lot. Under the terms of this solicitation, AEPA reserves the right to accept or reject offeror responses that do not demonstrate they possess the qualifications, capabilities, available resources, products and/or services to meet solicitation's/lot's minimum terms, conditions, specifications/requirements.

Rational/Purpose for soliciting the above noted products and services: Athletic, recreational, activity and public event facilities owned and operated by public educational and governmental institutions used by schools, colleges, universities, community groups and organizations are being impacted and effected by shrinking budgets, reduction in funding and operational costs, which are becoming a concern due to rising energy costs. Therefore, when these educational and governmental institutions are maintaining, retrofitting/renovating, or re-lamping of an existing facility, or building a new facility they look for and strive to acquire and install the highest quality, most energy efficient and cost effective indoor/outdoor lighting products and services to meet their individual needs. It is nationally known and AEPA members through their past cooperative purchasing efforts have found they have been able to bring economic leveraging to these entities and a variety and diversity of high quality products and services at reduced direct and indirect costs (procurement and construction) while streamlining the procurement process, providing quality control and assurance, added value and support throughout the entire process.

2. Anticipated AEPA Member Agency Participation

State	Participate? Yes/No/ Undecided	Other States Member Sells In	Est. 1 st Year Purchase Volume	% Growth for Year 2-4
California		AZ,NV		
Colorado	Yes		\$ 10,000	1%
Connecticut	Yes	MA,ME,NH, NY, RI,VT	\$ 50,000	5%
Florida	Yes	AL,GA		0%
Indiana	Yes	IL,SD	\$ 50,000	1%

Iowa	No			
Kansas	Yes	OK	\$ 400,000	1%
Kentucky	Yes	AL,GA,LA,MS, NC,SC,TN,WV	\$ 200,000	5%
Massachusetts	No			
Michigan	Yes		\$ -	0%
Minnesota	Yes	SD	\$ 180,000	20%
Missouri		AR,IL,LA,SD		
Montana	Yes	ID		5%
Nebraska	Yes		\$ 50,000	5%
New Jersey	No			
New Mexico	Yes		\$ 100,000	3%
North Dakota	Yes		\$ 180,000	20%
Ohio	Yes		\$ 450,000	2%
Oregon				
Pennsylvania	No	DE,HA, MD,NY,		
Texas	Yes		\$ 500,000	3%
Virginia	Yes		\$ 50,000	3%
Washington	No	AK,ID		
West Virginia	Yes		\$ 150,000	2%
Wisconsin	Yes			
Wyoming	Yes	SD,UT	\$ 120,000	5%
Total			\$2,490,000	

Please note that individual AEPA state agencies that have indicated above they would like to participate in any contract awarded under this solicitation does not guarantee or mean that the individual AEPA Member Agency will enter into a contract with any AEPA approved vendor. Each AEPA Member Agency will make that determination after reviewing vendor responses and AEPA's recommendation for acceptance and bid award. The AEPA Member Agency's contracting decision shall be final.

The above information relating to the estimated/projected volume for the first year for this solicitation is provided based on submittals from its members. AEPA Member Agencies anticipate that purchase volumes will increase in contract years two through four (2-4). This information is provided as an aid to offerors in preparing bids only. It is not to be considered a guarantee of volume under this IFB. The successful vendor's discount and pricing schedule shall apply regardless of the volume of business under the contract.

3. Glossary of Terms

AAMA: American Architectural Manufacturers Association (847) 303-5664, www.aamanet.org

AAU: Amateur Athletic Union (407) 934-7200, www.aauathletics.org

Abbreviations and Acronyms for Standards and Regulations: Where abbreviations and acronyms are used in specifications or other contract documents, they shall mean the recognized name of the organizations responsible for the standards and regulations in the following list. Names, telephone numbers, and websites are subject to change and are believed to be accurate and up-to-date as of the date of the contract documents.

ACI: American Concrete Institute (248) 848-3700, www.aci-int.org

ADA: Americans with Disabilities Act (800) 872-2253, www.access-board.gov

ADAAG: Americans with Disabilities Act Architectural Guidelines (800) 872-2253, www.access-board.gov

AIA: American Institute of Architects (The), www.aia.org

AGCA: Associated General Contractors of America (The) (703) 548-3118, www.agc.org

ANSI: American National Standards Institute (202) 293-8020, www.ansi.org

Approved: Is defined as, conveying authorization or action on the Contractor's submittals, applications, and/or requests. The owner shall identify and establish within the contract documents who its' designated representative is and the parameters of the individual's duties, responsibilities and authority.

ASBA: American Sports Builders Association (866) 501-2722, www.sportsbuilders.org

ASCE: American Society of Civil Engineers (800) 548-2723, www.asce.org

ASTM: American Society for Testing and Materials International (610) 832-9585, www.astm.org

BF: Ballast factor

BICSI: Building Industry Consulting Service International, Inc.

Building Codes – Current Federal, State and/or local

Commercial Building Code
Energy Conservation Code
Solar Energy Code
Electrical Code
Electrical Safety Code
International Building Code
International Energy Conservation Code
National Electrical Code
National Electrical Safety Code
Public Works Registration and Regulations
Solar Energy Code (IAPMO)

Building Permit: The requirements for building permits are identified within each states' statutes, and the provisions states, no building or structure shall be erected, constructed, enlarged, altered, repaired, moved, improved, removed, converted or demolished, and no electrical wiring, plumbing or mechanical work as defined and described in the applicable states' construction codes can be performed on such building or structure, unless the applicable permit has first been obtained from the governing authority. It is the bidder's responsibility to secure all required building permits for the construction services offered under this Category and Lots.

CCT: Correlated color temperature

CPSC: U.S. Consumer Product Safety Commission

CRI: **Color Rendering Index** – A scale of the effect of a light source on the color appearance of an object compared to its color appearance under a reference light source. Expressed on a scale of one to 100, where 100 indicates no color shift. A low CRI rating suggests that the colors of objects will appear unnatural under that particular light source.

CSI: Construction Specifications Institute (The) (800) 689-2900, www.csinet.org

CV: Coefficient of variance: A measure of uniformity. The formula for calculating CV values is given in IES RP-6, section 2.3.2 (page 6).

Daylight Compensation: A dimming system controlled by a photocell that reduces the output of the lamps when daylight is present. As daylight levels increase, lamp intensity decreases. An energy-saving technique used in areas with significant

daylight contribution all around New Mexico.

DOE US Department of Energy (<http://www1.eere.energy.gov>)

Down light: A type of ceiling luminary, usually fully recessed, where most of the light is directed downward. May feature an open reflector and/or shielding device.

Construction Drawings, Specifications and Reports: For the purpose of this solicitation category is a term for a project architect's/engineer's/manufacturer's drawings, product and/or services descriptions/specifications and related technical/lab reports/documents which become part of the project's contract documents.

EECGB:

EMI: Electromagnetic Interference - High frequency interference (electrical noise) caused by electronic components or fluorescent lamps that interfere with the operation of electrical equipment. EMI is measured in microvolts, and can be controlled by filters. Because EMI can interfere with communication devices, the Federal Communication Commission (FCC) has established limits for EMI.

FIBA: The International Basketball Federation, www.fiba.com

FIVB: The International Volleyball Federation, www.fivb.ch

Group Relamping - Replacing all lamps on a given lighting system at one time

GSI: Geosynthetic Institute (610) 522-8440, www.geosynthetic-institute.org

Harmonic Distortion: A harmonic is a sinusoidal component of a periodic wave having a frequency that is multiple of the fundamental frequency. Harmonic distortion from lighting equipment can interfere with other appliances and the operation of electric power networks. The total harmonic distortion (THD) is usually expressed as a percentage of the fundamental line current.

HID - High Intensity Discharge: Generic term describing mercury vapor, metal halide, high-pressure sodium, and (informally) low-pressure sodium light sources and luminaries.

HPS - High Pressure Sodium Lamp: A high intensity discharge (HID) lamp whose light is produced by radiation from sodium vapor (and mercury).

IBF: International Badminton Federation (6-03) 9283-7155, www.intbadfed.org

ICRI: International Concrete Repair Institute, Inc. (847) 827-0830, www.icri.org

IEC: International Electrical Commission

IES: Illuminating Engineering Society

IESNA: Illuminating Engineering Society of North America an organization which establishes recommendations and practices for sports lighting facilities.

Illuminance: A photometric term that quantifies light incident on a surface or plane. Illuminance is commonly called light level. It is expressed as lumens per square foot (foot-candles), or lumens per square meter (lux).

Industry Design Guidelines

IESNA RP-33-99 Lighting for Exterior Environments

IESNA RP-20-98 Lighting for Parking Facilities IESNA RP-8-00 Roadway Lighting

IESNA RP-6-01 Sports Lighting

IESNA TM-11-00 Light Trespass: Research, Results and Recommendations

IESNA TM-10-00 Addressing Obtrusive Light (Urban Sky Glow and Light Trespass) in Conjunction with Roadway Lighting

ANSI/EIA/TIA Standards 568A & 569, NFPA 70 (National Electrical Code)

Standards for installing and configuring LED lighting systems
ANSI/NFPA 70, National Electric Code
IEEE C62.41, Guide on the Surge Environment in Low-Voltage (1000 V and Less) AC Power Circuits
FCC 47 CFR Part 15, Federal Code of Regulation (CFR) testing standard for electronic equipment
(FCC) Title 47, Subpart B, Section 15 regulations concerning the emission of electronic noise
IESNA LM-79, Electrical and Photometric Measurements of Solid-State Lighting Products
IESNA LM-80, Approved Method for Measuring Lumen Maintenance of LED Light Sources
UL 1283,
UL 1449,
UL 1598, Standard for Safety of Luminaires

Individual Project Contract Documents: Should consist of the construction contract, conditions of the contract, drawings (if required) and specifications defining the scope of work, product specification, delivery timelines, etc. These should be issued prior to signing the construction contract.

Initial illuminance level: The illuminance level after a 100 hour burn-in period.

Install: Operations at project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

Instant Start: A fluorescent circuit that ignites the lamp instantly with a very high starting voltage from the ballast. Instant start lamps have single-pin bases.

ISO: International Organization for Standardization www.iso.ch Available from ANSI (202) 293-8020, www.ansi.org

LDD : Luminaire dirt depreciation

LED: **Light Emitting Diode:** An illumination technology

LLD: Lamp Lumen Depreciation

LLF: Light loss factor: The formula for calculating the light loss factor is as follows $LLF = BF \times LTF \times LLD \times LDD$

Low Pressure Sodium: A low-pressure discharge lamp in which light is produced by radiation from sodium vapor. Considered a monochromatic light source (most colors are rendered as gray).

LPD: Lighting Power Density

LTF: lamp tilt factor

Lumen: A unit of light flow, or luminous flux. The lumen rating of a lamp is a measure of the total light output of the lamp.

Luminaire: A complete lighting unit consisting of a lamp or lamps, along with the parts designed to distribute the light, hold the lamps, and connect the lamps to a power source. Also called a fixture.

Luminance: A photometric term that quantifies brightness of a light source or of an illuminated surface that reflects light, it is expressed as foot lamberts (English units) or candelas per square meter (Metric units).

Maintained illuminance level: The illuminance value at 70 percent rated lamp life.

Mercury-Vapor Lamp: A type of high intensity discharge (HID) lamp in which most of the light

is produced by radiation from mercury vapor. Emits a blue-green cast of light and is available in clear and phosphor-coated lamps.

Metal Halide: A type of high intensity discharge (HID) lamp in which most of the light is produced by radiation of metal halide and mercury vapors in the arc tube. Available in clear and phosphor-coated lamps.

MHIA: Material Handling Industry of America (800) 345-1815, www.mhia.org

NAGWS: National Association for Girls and Women in Sports (800) 213-7193, ext. 453, www.aahperd.org/nagws/

NAIMA: North American Insulation Manufacturers Association (703) 684-0084, www.naima.org

NCAA: National Collegiate Athletic Association (The) (317) 917-6222, www.ncaa.org

NFHS: National Federation of State High School Associations (317) 972-6900, www.nfhs.org

NEMA: National Electrical Manufacturers Association

NSSGA: National Stone, Sand & Gravel Association (800) 342-1415, www.nsf.org

NVLP: National Voluntary Accreditation Program

Owner's Representative: An individual identified by the Member as a contact person for individual project. Member's representative has authority to make decisions and to authorize any actions as defined for the project.

Ownership of Materials and Documents: AEPA and its Members shall be the sole owner of all right, title and interest, including copyright, in and to all software, plans, diagrams, facilities and tools (hereafter "**materials**") which are originated or created through Contractor's work pursuant to any contract entered into between AEPA Member and Contractor. Contractor, for valuable consideration herein provided, shall execute all **documents** necessary to assign and transfer to, and vest in AEPA, and its Members rights, titles and interests in and to such original **materials**, including any copyright, patent and trade secret rights which arise pursuant to Contractor's work under any contract entered into between AEPA Member and Contractor.

OSHA: Occupational Safety and Health Administration (800) 321- 6742, www.osha.gov

Par Lamp: A parabolic aluminized reflector lamp. An incandescent, metal halide, or compact fluorescent lamp used to redirect light from the source using a parabolic reflector. Lamps are available with flood or spot distributions.

Parabolic Luminaire: A popular type of fluorescent fixture that has a louver composed of aluminum baffles curved in a parabolic shape. The resultant light distribution produced by this shape provides reduced glare, better light control, and is considered to have greater aesthetic appeal.

Performance Specification: Specifies the subsequent performance of completed construction work rather than prescribing how the work shall be constructed and installed.

Primary event/playing area: An area including the event/playing field and extending 15 feet beyond the boundaries of the event/playing field in all directions.

Project Site: Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

RFI - Radio Frequency Interference: Interference to the radio frequency band caused by other high frequency equipment or devices in the immediate area. Fluorescent

light systems generate RFI.

R.S. Means - A division of Reed Business Information that provides cost information to the construction industry so contractors in the industry can provide accurate estimates and projections for their project costs.

Shop Drawings: Drawings made for production purposes by persons other than a designer.

Spot Relamping – Replacing only lamps that are burned out or no longer working

SSL: Solid-state lighting

Tungsten Halogen Lamp: A gas-filled tungsten filament incandescent lamp with a lamp envelope made of quartz to withstand the high temperature. This lamp contains some halogens (namely iodine, chlorine, bromine and fluorine), which slow the evaporation of the tungsten. Also commonly called a quartz lamp.

UG: Uniformity gradient: A measure of uniformity. UG is a measure of the rate of change of illuminance expressed as a ratio between the illuminance levels of adjacent measuring points on a uniform grid.

UL: Underwriters Laboratories: An independent organization whose responsibilities include rigorous testing of electrical products. When products pass these tests, they can be labeled (and advertised) as “UL listed”. UL tests for product safety only.

USAV: USA Volleyball (888) 786-5539, www.usavolleyball.org

Value Engineering: The comparison and economic evaluation of alternate lighting sources, systems and construction methods that could be considered for a specific project.

4. Special Terms and Conditions

4.1. Bid Bond – A bid bond is required to be submitted in the amount of \$25,000. It will be returned within 10 days of award to vendors not receiving an award.

The following items are in addition to applicable General Terms and Conditions stated in Part A of this solicitation. If the bidder is unable or unwilling to comply with the following Categorical/Lot Terms and Conditions, a detailed explanation for the deviation must be listed on the Acceptance of Categorical Terms and Conditions Form – E, for this Category.

4.2. General (Applies to all Lots)

4.2.1. Due to the individual AEPA Member Agency’s individual, state and local requirements, any bidder responding to this solicitation, who fails to provide the requested information required by the solicitation and on the Contractor’s Qualifications Form (F) or failed to demonstrate their past performance/proven track (on offer solutions, conduct and complete project, warranty work or has been found guilty of violating of state and/or local construction/labor codes, as judged by previous clients or AEPA. AEPA reserves the right to consider or not consider the bidder’s response as being responsive based on its own investigation and findings.

4.2.2. By responding to this solicitation, the bidder agrees to and will be solely responsible for doing the research to ascertain that its solutions offered complies with, meet or exceed all federal, state, local and industry regulations, rules, standards and/or requirements applicable to any project(s) covered by scope of work of this solicitation.

4.2.3. The successful bidder must abide by and ensure that any subcontractor abides by all applicable federal, state, and local laws, codes, regulations and ordinances governing the products and/or services proposed in response to this solicitation, awarded and rendered under any resulting contract. Must have all required permits, licenses, agreements, tariffs, bonding and insurance required by same. No claims

for additional payment will be approved for changes required to comply with any such requirements unless submitted as part of a project's cost proposal and approved by the Owner.

- 4.2.4. The indoor and outdoor lighting products and services being requested within this solicitation relates to and involves the construction, erection or repair of public facilities, the contractor is required to make themselves aware and knowledgeable of and comply with each state's Procurement Code as they relate to the procurement and acquisition of construction products and services it is proposing to offer in response to this solicitation.
- 4.2.5. For any project constructed under this solicitation, the contractor must comply with the Americans With Disabilities Act (ADA) (42 USC Section 12101 ET SEQ.) and the Americans With Disabilities Act Architectural Guidelines (ADAAG), as well as the implementing requirements, 28 CFR Part 36, federal register, Vol. 56, No. 144, July 26, 1991, as amended.
- 4.2.6. Applicability of industry standards, unless the individual project contract documents include more stringent requirements, applicable construction, manufacturer/industry standards have the same force and effect as if bound or copied directly into the individual project's contract documents to the extent referenced. Such standards are made a part of this solicitation by reference provided under Item 3 Glossary of Terms located above.
- 4.1.6.1 Publication Dates: Comply with standards in effect as of date of the individual project's contract documents, unless otherwise indicated.
- 4.1.6.2 The contractor and subcontractors engaged in a lighting project covered by this solicitation should be familiar with industry standards applicable to its products being offered and activity being performed. Copies of applicable standards are not provided as part of this solicitation and when copies of standards are needed to perform a required project, they may be directly obtained from publication source as identified herein.
- 4.1.6.3 Where abbreviations and acronyms for standards and regulations are used within the solicitation, individual project's specifications or other contract documents, they shall indicate the recognized name of the organizations/agency responsible for the standards and regulations utilized.
- 4.2.7. Any contract awarded under this solicitation is an indefinite-quantity contract for products and services requested. All costs associated with preparing quotes/job orders/cost proposals shall be the responsibility of the contractor and must be based on a detailed scope of work and in compliance with one of the approved pricing methodologies identified herein.
- 4.2.8. The contractor shall hold AEPA Member and its Member Agencies harmless from penalties, fines and/or damages assessed due to the contractors failing to comply with and/or meet 4.1.1 and 4.1.2 above.
- 4.2.9. The successful Contractor must provide AEPA Members and its Member agencies the benefit of all general price reductions extended to its other customers at any time during the period of this contract or any extension thereof. Likewise, the contractor may during the annual contract renewal process, submit to AEPA any additional products or services covered by their award and may request for price adjustments on published price lists. Any request must be in writing and submitted to the oversight committee chairman who has been designated by AEPA for that solicitation/category. The chairman will process the request and submit it to the AEPA board of directors for their approval/disapproval. If approved, each AEPA state agency will be responsible for notifying its Member Agencies. In the event of a decrease in the prevailing contract price, the oversight committee may approve the change and it will become effective immediately upon notification.
- 4.2.10. If the bidder intends to utilize independent agents/distributors, subcontractors and/or third-party agents to perform and/or provide any part (before, during

and/or after the sale) of the products and services offered herein the bidder must ensure that activities, products and/or prices from these parties are in accordance with the terms, conditions and pricing submitted and approved by AEPA.

- 4.2.11. Responses must clearly identify all charges and components necessary for performance of the contract even if such are not specifically addressed in any paragraph, sub-paragraph or forms that are a part of this solicitation.
- 4.2.12. Additional and optional products and services must be identified separately, and must include clear descriptions and specifications of proposed items.
- 4.2.13. Products offered under this solicitation shall be “eco-labeled” by one of three methods: seal of approval as an environmentally preferable product (that is, Energy Star and Green Seal); label with energy or environmental information (that is, Energy Guide or Scientific Certification Systems [SCS] Certified Eco-Profile); verification labeling (that is, SCS Claims Certification and UL, Inc., Energy Verification Label). Exceptions will be permitted if the energy efficiency status of a product can be independently verified by a source satisfactory to the project’s owner.
- 4.2.14. When the bidder has a choice between similar eco-labeled energy-star products, the highest environmental and energy saving products shall be utilized while satisfying the minimum performance standards at the most reasonable cost.
- 4.2.15. Bidders are asked to make available new products and services as they become available and have been tested and proven to be reliable, suitable and appropriate for use within educational and governmental athletic, recreational and public facilities covered under this solicitation. It shall be communicated to and detailed information provided to the individual owners indicating that the product and/or service is new technology and any test results or past performance history necessary to allow the owner to make an informed decision on accepting the product/service for the proposed project.
- 4.2.16. The bidder must have the human, physical and fiscal resources necessary to offer, propose and provide a comprehensive technical support and assistance program, training, maintenance and support program to individual owner within the 23 AEPA states which will allow the owner to properly and successfully acquire, utilize and maintain the lighting products installed within their facilities through their stated life cycle. The programs offered must be appropriate for the owner’s staff that will be responsible for acquiring, operating, maintaining and using the purchased products. The bidder must provide documentation that proves these resources and programs do exist and can be successfully delivered on a nation-wide-basis. If there are associated cost terms, conditions and stipulations relating to the programs offered they must be clearly identified and stated within the bidder’s response.
- 4.2.17. Any contract between the individual owner and the contractor under this solicitation shall consist of a detailed scope of work (a description of the work to be performed and the products to be provided by the contractor) and will include all specifications, drawings, contractor’s cost proposal and other project related documents. All applicable industry standards, manufacturer’s instructions and requirements, technical specifications and general conditions, federal, state and local codes around which the contract is made shall be included, as if they were physically part of the contract documents.
- 4.2.17.1. A schedule for performance of work that can be met without planned overtime, special manufacturing, processing and/or handling is the responsibility of the contractor, unless otherwise requested by the owner.
- 4.2.17.2. Terms for what constitutes project completion and acceptance by the owner and taking title/ownership of products and services rendered must be clearly

identified, described and agreed upon and made a part of any contract. If any part of the project's executions requires the owner to assume control/ownership before the project's completion, this needs to be defined with all of the agreed to terms, conditions and stipulations. Both parties must agree on the definition of what constitutes total acceptance of the project and must be accomplished before final payment is made to the contractor.

- 4.2.17.3. The contractor will pay for any failure to conform or for any defect. In addition, contractor will fix any damage to AEPA Member controlled, real or personal property when that damage is the result of contractor's failure to conform to contract requirements or any defect in equipment, material, workmanship, or design furnished or in compliance with federal, state and local laws, codes, regulations and standards. Contractor's warranty with respect to work done, repaired or replaced under these conditions will run for one (1) year from the date of repair or replacement or completion.
- 4.2.17.4. If contractor fails to remedy any failure, defect or damage within a reasonable time after receipt of notice, the AEPA Member will have the right to replace, repair or otherwise remedy the failure, defect or damage at the contractor's expense in accordance with laws of the AEPA Member state.
- 4.2.18. The contractor must warrant the products and services provided materials, for a period of not less than one (1) year against defects and poor workmanship. Even if final payment is made, if the owner discovers a defective component, or poor workmanship that should have been identified and noted during final inspection and close-out process, the contractor will repair/replace the products in a timely fashion at no additional cost to the owner. This warranty does not cover damage caused by acts of God, fire, winds, floods, chemicals or owners' negligence of reasonable precaution to properly operate and maintain the products. Furthermore, this warranty does not cover damage caused by ordinary wear and tear.
- 4.2.19. The bidder may offer extended warranties or maintenance agreements if available at an additional cost to members. The extended warranties or maintenance contract must be offered as a separate line item.
- 4.2.20. If the bidder submitting a response to this solicitation to provide athletic, recreational, public facility lighting products and service is not a manufacturer, then the bidder must provide written documentation between it and its manufacturer(s) indicating that the product manufacturer(s), for the purpose of this solicitation, is aware of the bidder's intent to offer the manufacturer's product line(s) and both parties are jointly committed and are aware of the terms, conditions and stipulations in this IFB, and that the manufacturer acknowledges and agrees to and will stand behind the bidder's performance under this IFB. Failure of non-manufacturers to submit sufficient documentation to meet this requirement can result in it response be deemed non-responsive.
- 4.2.21.** In its response, the bidder must provide a complete electronic copy of and/or internet access to product listings/catalogs of all products and services offered with their associated costs. This will enable AEPA Members and its Member Agencies/owner's staff, architect or general contractor to verify the bidder's individual project quotes for lighting products and services needed for new construction, renovation, retrofit or general maintenance and repair. This

listing/catalog must provide complete specifications on each product/service.

(This information is required in electronic format.)

4.2.22. Quality Assurance (bidder qualifications)

4.2.22.1. The bidder must within its response demonstrate through written documentation and information its' knowledge, understanding and ability in dealing and working with the various indoor and outdoor lighting technologies that are currently available and their unique design, configurations, structure, operational attributes and characteristics. And how they are applicable and suitable to the various types of facilities covered by this solicitation.

4.2.22.2. The bidder must demonstrate through documentation submitted with its response that it has completed at least one (1) project with a total project cost of twenty-five to one hundred thousand dollars (\$25,000 - \$100,000); one (1) project with a total project cost of one hundred and one thousand to five hundred thousand dollars (\$101,000 - \$500,000); and one (1) project with a total project cost that exceed five hundred thousand dollars or more (\$500,000 or more) in each of the AEPA Member states that have indicated section 3: Anticipated AEPA Member Agency Participation above they have shown an interested in any resulting contract based on this solicitation for a total of sixty-three indoor and/or outdoor athletic, recreations and/or public facilities lighting projects that were completed and accepted by the owner as meeting and complying with the applicable governing bodies', jurisdictions' and/or industry organizations'/associations' (listed in section 4: Glossary of Terms above) construction codes, regulations, rules, guidelines, standards and requirements for the specific lighting project listed. The lighting products/systems/solutions provided meet or exceed the specific project's terms, conditions, performance specifications stated and stipulated in project's executed contract documents.

4.2.22.3. The bidder must demonstrate through written documentation in their response that they are a nationally recognized manufacture/provider/ supplier specializing in indoor and/or outdoor lighting products/ systems/solutions for athletic, recreational and public facilities. If the bidder is not a manufacturer, then it must provide written documentation form the lighting product/system/solution manufacturer(s) indicating that the bidder is qualified, certified, indorsed and authorized to offer, provide, install and service the manufacturer's lighting products/systems/solutions in the AEPA Member states. Likewise, any restrictions and/or limitations regarding the services area and/or product lines shall be clearly addressed.

4.2.22.4. If the bidder is offering professional lighting system/solution consulting, design, engineering and/or construction services for assessing, planning, and/or constructing athletic, recreational and public facilities, then they must demonstrate through written documentation in its response that it and/or its subcontractors are fully qualified (educated, trained, experienced, factory certified and if applicable hold current licenses and registrations in those states where required) which enables them to offer and provide the prosed construction products and services in response to this solicitation.

4.2.23. Quality Assurance (General)

4.1.26.1 The contractor will only utilize qualified, trained, experienced, manufacturer approved and if applicable licensed tradesman to perform all work done under this solicitation.

4.1.26.2 During the course of the executed contract, the owner or its designee may request and/or secure samples/items/components, according to construction industry

standards, guidelines or ASBA standards, of supplies, materials and/or system/solution components being delivered and/or installed from the job site. The owner may then submit the samples/items/components to an independent industry qualified/certified consultant to test and evaluate the samples/item/component to determine that the lighting products being delivered and/or installed meet or exceed project's specifications. The cost for these tests and services will be paid for by the owner.

4.1.26.2.1 Should the test results prove that the tested product is not equal to or better than specified, or the end product does not meet minimum requirements, the contractor will reimburse the owner for the cost of the tests and/or services acquired. The contractor will also pay for all costs incurred and associated to replace, remove and dispose of non-compliant product in order to bring the lighting final system/solution up to project specifications and requirements.

4.1.26.2.2 Should the test results and services prove that the product tested were equal to specified lighting system/solution specifications and the work performed meets the project's specifications and requirements, the contractor will be notified of the results and the owner will pay all associated costs.

4.1.26.2.3 Project quality control

4.1.26.2.3.1 All testing shall be arranged, scheduled and coordinated by the contractor with the facility's owner. Testing activities and their timelines shall be established as part of the development of the contract documents.

4.1.26.2.3.2 Testing methods/protocols and instruments shall meet all applicable federal, state, local, industry and manufacturer instructions.

4.1.26.2.3.3 Testing equipment for measurement of footcandle levels shall be performed using a Konica Minolta T-10 Illuminance Meter or equal. Supplier must show proof of calibration prior to testing as required by the manufacturer. Accuracy shall be $\pm 4\%$ or less of recording. Measuring functions shall be in footcandles.

4.1.26.2.3.3.1 Readings shall be recorded for each point and the results confirmed by Owner and/or Engineer.

4.1.26.2.3.3.2 Horizontal illuminance readings shall be taken in accordance with "IES Standard for Photometric Measurement of Area and Sports Lighting Installations".

4.1.26.2.3.3.3 Measurements shall be taken at 36" inches above grade, with meter held horizontally. Dark clothing shall be worn by individuals performing test.

4.1.26.2.3.4 The contractor shall take voltage and current readings at each pole base during the time of the test for the purpose of ascertaining the approximate fixture operating condition. Voltage at the pole base shall be adjusted within $\pm 5\%$ of rated ballast voltage.

4.1.26.2.3.5 The contractor shall provide stakes or other identifiable markings at all test points on the field at the time of the test.

4.1.26.2.3.6 The measured values shall be within plus or minus ten percent of the calculated values indicated on the computer derived lighting plan of the initial illuminance levels.

4.1.26.2.3.7 Failure to meet criteria shall require that the fixtures be re-aimed and retested and added to until satisfactory results are obtained. Any expense of re-aiming, subsequent retesting additional fixtures and installation, if any, shall be borne by the contractor with no additional cost to the owner, architect or engineer.

4.1.26.2.3.8 Apparent "hot spots" or "dark spots" shall be eliminated by further fixture adjustment as required.

4.1.26.2.3.9 If in the judgment of the owner's representative, the manufacturers computed results cannot be obtained, this contractor shall furnish and install additional

fixtures, wire, conduit, breakers, etc., as required to achieve the manufacturers predicted results at no additional cost to the owner, architect or engineer.

4.2. **Lots 1 and 2.**

4.2.1 In its' response, the bidder must demonstrate and present paperwork to communicate its ability to adhere to, utilize and ensure the following:

4.2.1.1 The contractor must hold and maintain a current and valid contractor's license for any of the AEPA states that allows it to supervise others, to construct, alter, repair, add to, subtract from, improve, move, or demolish any athletic facility covered by this solicitation and found within those states that have such requirement.

4.2.1.2 The contractor will ensure that all individuals, firms or subcontractors being used to perform or supervise work performed, materials and equipment installed under this contract hold a current contractor's license, as required by those individual AEPA states. All subcontractors to be used for each individual project performed under this contract must be clearly identified and a list submitted with the name, address, trade or type of work, contractor's license number if applicable and their federal ID number included.

4.2.1.3 AEPA states and local building/electrical codes covers all electrical work, including work identified in less comprehensive electrical classifications, premises wiring systems 600 volts, nominal, or less, underground distribution raceway systems regardless of voltage, and wiring systems and terminations 600 volts, nominal, or less, with the exception noted and identified within each of the individual state's codes require the individual and/or firm hold a current electrical contractor's license in order to bid on and/or perform electrical work involving commercial/public facilities.

4.2.1.4 Only utilize qualified, trained, experienced, manufacturer approved and/or if applicable licensed tradesman to perform all work done under this solicitation.

4.2.1.5 The bidder shall employ and maintains for the term of any resulting contract an ASBA or other nationally recognized certified athletic and recreational lighting specialist/consultant on staff to ensure quality control in all aspects of a project conducted under this solicitation. Failure of the bidder/contractor to meet this requirement at the solicitation due date will be deemed their response non-responsive or during the term of the resulting contract, their AEPA contract will be terminated.

4.2.1.6 The contractor shall hold AEPA Member and its Member Agencies harmless from damage from trespassing on property of others. There shall be no dumping of construction debris or other material on Member's property. Any material that requires special handling as dictated by federal or state law shall be removed in compliance with the requirements of those laws. All such materials shall be removed from the site and properly disposed of by the contractor.

4.2.1.7 The Contractor will conduct and perform all required research, investigations and activities necessary to familiarize itself with the project's site, its propose, utilization and needs in order to obtain a complete and comprehensive knowledge and understanding of required scope of work, product and service specifications and requirements; to anticipate unseen problems that may develop as the project progresses. Failure to have visited the site before submitting a job order/quote/cost proposal shall in no way relieve the contractor from furnishing any materials or performing any work required to complete the project in accordance with the contract documents, without additional cost to AEPA Member and its Member Agencies.

4.2.1.8 The contractor understands and agrees that it will offer and accept only projects in which they have their own due diligence in assessing, evaluation exploring and determining existing site conditions, the level, quality and appropriateness of the

lighting construction products and services being requested, and whether or not the project, as requested, allows the contractor to comply with all applicable laws, regulations, codes, manufacturer specifications/instructions and industry standards. During the contractor's due diligence and/or completion of the project, a concern or issue arises, the contractor must immediately notify the AEPA Member and/or Its Member Agency representative in writing, so that it can be corrected or properly addressed.

- 4.2.1.9 The contractor will not begin a project for which the site is not prepared or in the condition agreed upon in writing by the AEPA Member or its Member and the contractor. Site preparation may include but not limited to, moving or relocating equipment, grading, soil testing, clearing and securing the site, installation and relocation of utilities, and any other task as identified by AEPA Member or its Member Agency.
- 4.2.1.10 When required by an AEPA member state or local jurisdiction, building permits may be required. It is the Contractor's responsibility to submit for and secure all required building permits for the lighting products and construction services offered/rendered, unless otherwise specified in the project's contract documents between the AEPA member Agency and the contractor.
- 4.2.1.11 All work will be in compliance with OSHA safety requirements and any additional applicable federal, state or local fire and safety requirements. When specifications or scope of work result in a violation of a code or result in an unsafe condition, the contractor must inform AEPA Member and/or its Member Agencies representative of the situation. The contractor will not construct any sub-assembly, structure, or device or produce any condition that intentionally violates a fire, health, safety or building codes or safety standard.
- 4.2.1.12 During all phases of a project, the contractor will have a qualified and experienced foreman, supervisor and/or superintendent in the area of construction being performed, and in charge of and in full control of the products being provided, worksite and all construction activities being performed on the project. The individual assigned must be knowledgeable, qualified and aware of all aspects, specifications and requirements of the project and provide continuous supervision, coordination, communication and inspections in order to assure quality control standards and the project's outcomes are met.
- 4.2.1.13 All equipment, tools and machines used in the performance of construction services by either the prime contractor or subcontractors will be maintained in satisfactory working conditions and meet or exceed industry standards at all times.
- 4.2.1.14 If a contractor intends to subcontract any part of an individual project, the contractor will be responsible for ensuring, notifying and furnishing subcontractor(s) the following:
- 4.2.1.14.1 Checking and verifying the subcontractor is qualified (licensed, registered, insured, manufacturer/factory certified, etc.)
- 4.2.1.14.2 If performance and payments bonds are required, they are in place for the appropriate amount.
- 4.2.1.14.3 Provided the description of the construction products to be provided, the tasks to be performed, the project's drawings, standard specifications, requirements and timelines the subcontractor must meet.
- 4.2.1.14.4 The contractor will instruct subcontractors to complete their own investigation, assessment and careful examination of all elements of a project before it submits a quote or proposal to provide construction products and/or perform construction services for the project. The subcontractor will promptly notify the contractor if it finds any discrepancies in, or omissions from, any plans, drawings,

specifications and/or any other documents associated with the project. The contractor will immediately issue written notification to the AEPA Member and its Member Agencies representative. The involved parties' representatives will jointly work with each other to resolve the concerns or issues raised and issue written instructions to the contractor on how the matters raised are to be handled. The contractor will be responsible for ensuring the subcontractor is aware of and incorporates any modifications into its quote/proposal. The AEPA Member and its Member Agencies representative will not be responsible for communicating instructions and/or information to subcontractors.

4.2.1.15 The contractor will not use materials, equipment and/or structures that exist on and/or removed from the project site or other sites except as required by the project's contract documents and/or approved by the owner.

4.2.1.16 All cost quotes/proposals submitted by subcontractors must be in a format that the contractor needs to prepare and submit its cost quote/proposal in compliance with one of the pricing methodologies defined herein.

4.2.2 The R.S. Means price shall be adjusted when the new updates (usually January 1st of each year) become available.

4.2.3 The prime contractor must warrant the work performed, materials, equipment installed for a minimum period of not less than one (1) year against defects and poor workmanship. Even if final payment is made, if the owner discovers an unfinished and/or improperly installed component, defect or poor workmanship that should have been identified and noted during final inspection, the contractor will complete the work in a timely fashion at no additional cost to the owner. This warranty does not cover damage caused by fire, winds, floods, chemicals or owners' negligence of reasonable precaution to provide adequate operational conditions ventilation. Furthermore, this warranty does not cover damage to lighting products caused by ordinary wear and tear. AEPA is aware of and understand that various individual lighting product/system/solution manufacturer warrantees/guarantees terms, conditions, timelines, stipulations and requirements differ. Therefore, the solicitation stated warranty/guarantee is a minimum and if the manufacturer's warranty/guarantee exceeds the minimum it shall be offered and provided to the extent that the lighting product/system/solution manufacturer has indicated and stated.

4.2.3.1 The product/system/solution was manufactured, shipped, stored, installed and/or configured in accordance with the contract documents, industry standards, manufacturer's specifications and instructions.

4.2.3.2 Once the lighting product/system/solution was installed, final inspections and testing was conducted and the product/system/solutions performed as identified and indicated in the manufacturer's product information, literature and specification sheets provided as part of the project's contract documents. The owner accepted and approved the project as being in full compliance with the project's contract documents specifications and requirements.

4.3. Lot 3.

4.3.1 Purpose and rational for soliciting the indoor/outdoor electrical and lighting products and services covered by this lot.

4.3.1.1. During the AEPA's twelve years of procuring a variety of construction related products and services it has found that due to the number of AEPA Members and their Member agencies; the number of physical sites/locations; the various types and sizes of buildings and facilities they operate within these locations; the ongoing responsibility for new construction and the maintenance, repair and upkeep of buildings and facilities; each AEPA Member's state and local procurement codes

that govern the soliciting for, acquiring and conducting projects that involve construction products and services differ; and the available resources (work crew, equipment etc.) dictates how they accomplish and meet their individual building and facilities construction related needs.

4.3.1.2. In order to assist and meet and provide AEPA Member' and its Member Agencies' with all of the available options possible for them to procure, acquire indoor and outdoor athletic, recreational and public facilities electrical and lighting supplies, materials, fixtures, components, structures, equipment, accessories and related items only. Bidders awarded under this lot shall not provide and/or perform services/work defined as construction services by any of the AEPA Member states' procurement codes and/or governmental agencies'/entities' construction related codes, ordinances policies, rules and/or regulations the govern the construction of, maintenance, repair and renovation of public buildings/facilities. Or requires a trade/contractor's license.

4.3.1.3. AEPA is seeking manufacturers/distributors/ suppliers who are able and capable of provide electrical and lighting supplies, materials, fixtures, complete systems, system components, structures, equipment, accessories and related items for the various indoor/outdoor lighting systems found and/or used within the various sizes and types of athletic, recreational and public facilities owned and operated by federal, state, and local educational and governmental agencies as described herein. The resulting AEPA Member contracts would put in place volume discount contracts which would allow their Member Agencies to purchase as much or as little of the products offered on an as-needed basis without having to put out their own individual bids which saves the Member Agency time and money.

4.3.2 Bidder in its response must demonstrate and present documentation communicating it possesses the necessary ability, capacity and resources (physical, fiscal and personnel) to make it aware of, adhere to, and ensure the following.

4.3.2.1 With in-house resources and/or have subcontractors (manufacturers, distributors, suppliers, providers) to provide one or more comprehensive product line(s) of name brand, generic and/or custom manufactured electrical and lighting supplies, materials, fixtures, complete systems, system components, structures, equipment, accessories and related items for the various indoor/outdoor lighting systems found and/or used within the various sizes and types of athletic, recreational and public facilities owned and operated by federal, state, and local educational and governmental agencies as described herein.

4.3.2.2 The bidder will ensure that all employees, individuals, firms or subcontractors being used to provide and perform under the resulting contract are aware of its terms, conditions, stipulations and requirements. Possess the skill sets, expertise, knowledge, background, training and experience to offer AEPA Members and its Member Agencies located throughout the US with easily accessible, highly responsive and timely before, during and after the sale electrical and lighting product line information (descriptions, design, performance and operational specifications, applicability, availability, etc.), and customer service (project consulting, technical support and assistance, problem troubleshooting and resolution, etc.).

4.3.2.3 Will be solely responsible for ensuring the necessary research, inquiries, required and applicable questions are asked and the information is obtained relating to and required to provide the highest quality, appropriate and suitable electrical and lighting product(s) to meet the owner's project's specifications, needs, requirements and meet or exceed all applicable existing lighting system manufacturer's, industry, federal, state and local specifications, regulations, rules, standards, best practices and requirements.

- 4.3.3 There are AEPA Member agencies that possess their own in-house licensed resources and/or have conducted a public solicitation in accordance with the state's procurement codes to acquire and contract with a local licensed construction contractor to construct an athletic, recreational or public facility, erect, install, maintenance, repair and or renovate an existing facility's lighting system. Intend to utilize the resulting contract(s) from this solicitation to acquire the electrical and lighting products/systems to be installed as part of the project. If this is the case the contractor shall:
- 4.3.3.1 Hold and conduct the required phone conferences/meetings with the facility's owner to obtain a complete and comprehensive understanding of the projects scope of work and the quality, kind, type and level of electrical and lighting products (supplies, materials, fixtures, complete systems, system components, structures, equipment, accessories and related items) needed to complete the project's detailed scoped of work.
- 4.3.3.2 Conduct and perform all required research, investigations and activities necessary to become familiarized with the project's site physical and environmental conditions, the type and level of activities/events held at the facility, its utilization and needs, in order to obtain a complete and comprehensive knowledge and understanding of the requested products needed to meet or exceed owners expectations and project requirements.
- 4.3.3.3 Consult, advise and provide the technical support and related services to the project owner's in-house and/or subcontractors staff to allow them to develop the required knowledge, understanding and background relating to the products acquired installation, performance and operating specifications, requirements, installation instructions.
- 4.3.3.4 Contractor must be willing and able if the size, type and scope of the identified project requires and/or owner request the contractor to make site visits before, during and at the completion of the project to ensure proper design, development, construction/installation and successful completion of the project to ensure that all product manufacturer warrantees can be executed successfully.
- 4.3.3.4.1 Failure for the contractor to conduct the site visits if required or requested by the owner as part of the project develop or preparing and submitting its cost proposal shall in no way relieve the contractor from furnishing the appropriate, suitable products required to meet or exceed the project requirements.
- 4.3.3.4.2 If applicable and depending on the size and scope of the owner's designated lighting project, the contractor shall hold AEPA Member and its Member Agencies harmless from costs encored due to damage caused, fines levied and expenses to return and replace products if the contractor fails to make the necessary inquires, investigations and research to ensure products requested are applicable, appropriate and suitable for the designated project.
- 4.3.4 The contractor understands and agrees that it will offer and accept only projects in which they have completed their own due diligence in assessing, evaluation exploring and determining the level, quality and appropriateness of the lighting construction products being requested, and whether or not the project, as requested allows the owner to comply with all applicable laws, regulations, codes, manufacturer specifications/instructions and industry standards. During the contractor's due diligence and/or the delivery and the installation of the provided products, the contractor becomes aware of a concern or issue that may impact the successful completion of the project. The contractor must immediately notify the AEPA Member and/or Its Member Agency representative in writing, so that it can be corrected or properly addressed.
- 4.3.5 If offering electrical and lighting products (maintenance and repair supplies, material, parts and components) for existing lighting systems only offer original

- manufacturer parts and if original manufacturer parts are no longer available and third-part substitute parts are, ensure such parts/components are of the highest quality and meet or exceed all Applicable manufacturer specifications and industry standards. Applicable construction, manufacturer/industry standards have the same force and effect as if bound or copied directly into the individual project's contract documents to the extent referenced. Such standards are made a part of this solicitation by reference provided under Item 3 Glossary of Terms located above.
- 4.3.6 For products offered under this contract, descriptive product literature, physical attributes, operational and performance specifications must be made available either in hard copy, electronically and/or by providing access through the contractor's website. Product literature shall provide information sufficient for AEPA Members and its Member Agencies to determine appropriateness, suitability for their proposed project. In addition, the supplier must agree to provide applicable printed MSDS information to each purchasing member with delivery of the product.
- 4.3.7 All product labels shall be in full compliance with applicable OSHA laws. Labels shall clearly identify container/packaging contents, handling and storage instructions and related safety information. The labels must be resistant to deterioration during normal handling and storage. All labels shall have the information necessary for full compliance with applicable OSHA Hazard Communication Standards.
- 4.3.8 Just-in-time (JIT) delivery services shall be made available to interested owners. The JIT method should assist owners with ensuring that the electrical and lighting products ordered are delivered in a timely manner to allow owners to provide and perform day-to-day maintenance and repair on their athletic, recreational and public facility's lighting systems. Bidders must provide detailed information as to how the JIT delivery system will function within this contract, exactly what these services would cover and what the average JIT delivery time would be after the receipt of an order.
- 4.3.9 The contractor is expected to participate in cooperative marketing efforts with AEPA member, to promote its catalog to affiliate Members agencies.
- 4.3.10 The successful Contractor must provide AEPA Members and its Member agencies the benefit of all general price reductions extended to its other customers at any time during the period of this contract or any extension thereof. Likewise, the contractor may update its pricing throughout the contract period when its commercial publish price lists/catalogs are updated. Additional products covered by their award may be added when they become available to their commercial and general public customers. Contractor must ensure that such updates are communicated to the oversight committee chairman who has been designated by AEPA for that solicitation/category. The contractor will be responsible for communicating and/or providing AEPA Members and its Member Agencies with the updated price list/catalogs.
- 4.3.11 If the bidder intends to utilize independent subcontractors and/or third-party (agents, distributors, retailers) to perform and/or provide any part (before, during and/or after the sale) of the products offered herein the bidder must ensure that activities, products and/or prices from these parties are in accordance with the terms, conditions and pricing submitted and approved by AEPA.
- 4.3.12 Responses must clearly identify all charges and components necessary for performance of the contract even if such are not specifically addressed in any paragraph, sub-paragraph or forms that are a part of this solicitation.

5. Specifications

5.1. General (All Lots)

- 5.1.1. Upon request by an AEPA Member's local member agency/owner, the contractor

shall schedule a scoping meeting with the owner to ascertain and develop a comprehensive and complete understanding of the scope of work being requested by the owner. The contractor shall conduct and perform a site visit and review on the potential site or existing facility with the owner to discuss potential lighting products and services options that it has to offer.

- 5.1.2. All lighting and lighting system devices offered shall be in direct accordance with the following codes and standards, as applicable to the device: National Electrical Code (NEC), American National Standards Institute (ANSI), American Society of Testing Materials (ASTM), Electronic Industries Association (EIA), Federal Communications Commission (FCC), Institute of Electrical and Electronic Engineers (IEEE), ISO/OSI, Building Industry Consulting Service International, Inc. (BICSI) and Underwriters Laboratories (UL).
- 5.1.3. All equipment and materials must be new, unused and UL or CSA listed for the purpose intended. All electronics (fixtures included) shall be designed for continuous use without degradation of function or performance. When practical, one manufacturer shall be used to assure compatibility of the project. All equipment offered on this contract will be from manufacturers regularly engaged in offering and rendering energy-efficient indoor and outdoor athletic, recreational and public facility lighting and shall be the latest designs standard at the time of delivery. Only UL or CSA-classified materials and equipment will be placed on contract and shall comply with the applicable standards of ANSI, ASTM, NEMA, NFPA, UFC, NEC, EIA/TIA and other specified standards. No equipment or materials will be substituted for equipment in this contract without approval by AEPA Member and/or its member agency at least thirty (30) days prior to the start of any work. Proof of "as equal or better" status must be provided showing that the substituted equipment or material is, in fact, equal in features, functions, performance and quality to the approved equipment or materials. Cost of substituted equipment must be the same or lower. AEPA Members and/or its Member Agency reserve the right to reject substitutions.
- 5.1.4. All indoor and outdoor lighting system/solution components and their installation methods shall be designed, engineered and manufactured for use on and within the various facilities and applications covered by this solicitation's scope of work. The materials proposed for an individual lighting project shall be able to withstand full climatic exposure and/or environmental conditions found in the various AEPA Member States, be resistant to rot, rust, moisture, ultra-violet light and heat degradation, fade, crack or wear during the required and stipulated life cycle stated under normal use and intended purpose as communicated in the project's contract documents.
- 5.1.5. The contractor and/or its subcontractors are responsible for ensuring that any of the proposed and/or performed project's, as a result of this solicitation, clearly indicate, identify and communicate the products, services and/or testing before, during and after the project, the components and installation of lighting systems are in accordance and comply with applicable ASBA, AAU, NCAA, NFHSA, NEMA, UL, CSA, NEC, NECA/IESNA and local jurisdictions' codes and requirements.
- 5.1.6. If the Contractor is providing only the lighting fixtures and mounting hardware, the Contractor must consult with and provide the owner with installation and construction plans and drawings, requirements and recommendations for the site preparation, and ensure that project plans/drawings are stamped by an engineer or architect licensed in the state of facility owner.
- 5.1.7. If any part of the design or construction work is to be performed by the facility owner's own crews, owner's architect and/or a third party Contractor not associated with the awarded Contractor, prior to shipping the products and/or taking possession of the project site or proceeding with its work, the Contractor

must provide the owner with a signed affidavit stating that it has reviewed all applicable project documents and/or inspected and has accepted all specifications, project requirements and current site conditions and any site prep and work completed as meeting and/or exceeding its, the manufacturers, industry and governmental standards and requirements. If the work is not acceptable, the Contractor must notify the owner immediately in writing, stating what is not acceptable and how the determination was made.

5.1.8. During lighting product installation and/or project close-out, all structures, connections, lighting fixtures and controls will be fully tested by an acceptable testing method/protocol and an agreed up on technical technician fully qualified and experienced on the type of lighting system/products installed met or exceeded specifications/standards stipulated by the product manufacturer and/or the governing jurisdiction.

5.1.9. A lighting system will be accepted only after a satisfactory test of the entire project in the presence of approved representative of the owner. Acceptance shall be in writing.

5.2. Lot 1

5.2.1 Provide a complete and extensive line of consulting, design, engineering and construction services; energy and cost effective indoor and/or outdoor lighting products, systems and solutions specifically for all kinds of athletic, recreational and public event facilities owned and operated by federal, state and local k-12 and higher educational institutions, governmental entities and non-for-profit organizations located in the various states service by the AEPA Members. Such facilities may include but are not limited to small gymnasiums to large arenas; small baseball fields to multi-baseball field complexes; small football fields to large track and football facilities; single tennis court to large tennis facilities; small and large multi-purpose recreational fields; small and large swimming pools and water parks, small and large parks and playgrounds; small and large event and convention centers; ancillary buildings, structures and associate walkways and parking lots. Work may include but is not limited to the following:

5.2.1.1 Provide technical and consulting services to assess and determine existing site conditions, owner's expectations, project's specifications, needs and requirements for the lighting products and services to be provided.

5.2.1.1.1 Provide site inspection/investigation of physical and environmental conditions to identify conditions (surface, subsurface, structural, climatic, power resources, surrounding area attributes, etc.)

5.2.1.1.2 Research and investigate the owner's past, current and future planned usages of the facility (type of activity/events, time used, level and lighting requirements, etc.

5.2.1.2 Work in conjunction with the owner to review the data and information obtained through the research, sight inspection and pre-project investigation; the available lighting solution options with their various configurations, operational attributes, characteristics, operational and maintenance costs to developing a proposed solution/project to meet the facilities needs, conform to and meet the owner's expectations and available financial resources.

5.2.1.2.1 The lighting products/solutions offered are to be of an industrial quality, energy efficient and provide adequate lighting to support and facilitate, the activities and/or events being conducted within the facility and must be adequate for the current and projected site conditions and environment.

5.2.1.2.2 Lighting products/solutions offered must be designed, engineered and manufactured to meet current energy efficiency and industry standards, electric and building code requirements, while meeting the specific lighting requirements of

the individual facility by providing relatively high levels of smooth lighting over the various usable areas. For the purpose of this solicitation and to communicate to potential bidders the level and quality of products/systems being requested, AEPA has selected those products/systems offered by Musco Lighting Inc. a nationally known and recognized provider as a minimum standard and will welcome and consider manufacturer's products/systems that are equal to or better than those lighting products offered by Musco Lighting Inc. Bidders submitting alternate products must provide a comparison that demonstrates equality.

- 5.2.1.2.3 The lighting manufacturer and/or supplier must have an extensive background and experience in manufacturing, producing, obtaining, delivering, installing, servicing and supporting the products/systems offered in response to this solicitation to public entities throughout the AEPA Member states.
- 5.2.1.2.4 The bidder will only offer, provide and install lighting products/systems (structures, fixtures, equipment, control systems and accessories that are factory certified and approved for the intended use by a nationally-recognized manufacturer. Products/systems have been tested, installed, monitored and have a documented and proven track record of their stated quality, performance, life cycle, purpose and suitability for the type and level of facility and activities/events conducted.
- 5.2.1.2.5 Provide the necessary lighting maintenance, repair and replacement supplies, materials, hardware, equipment and accessories required to properly maintain the proposed lighting systems/solutions.
- 5.2.1.3 Assist and work with the owner to plan, design, implement and construct the lighting project as proposed, accepted and authorized, while meeting or exceeding industry standards for the particular type of facility.
- 5.2.1.3.1 Provide all labor, materials, equipment, drawings and design/engineering services as required by the owner/s request to provide a project cost proposal and a complete scope of work, including all lighting product and service specifications, terms, conditions and stipulations with their proposed construction schedule and associated costs that if accepted can be used to develop project contract documents.
- 5.2.1.3.2 Provide all labor, materials, equipment, project drawings, product/solution and performance specifications required to prepare, finalize, and execute the specific project's construction/contract documents necessary to establish, construct, and complete the lighting project as identified within the project documents for the individual owner's project.
- 5.2.1.3.3 Provide all, labor, supplies, materials and equipment required to perform and complete any warranty work required in accordance with this solicitation's requirements, manufacturer's instructions, specifications and industry standards on an as need basis.
- 5.2.1.3.4 Provide all labor, materials and equipment required during the installed lighting system/solution stated life cycle to assess and evaluate the installed system's/solution's operational condition, status and performance to determine if it meeting stated expectations and performance standards. Develop, establish and communicate a plan of action and maintenance program required by both the contractor and owner to maintain, repair and/or service the system/solution as need to keep in good operational condition and meeting the facility's needs and requirements stated and stipulated in the product's literature and/or project documents. Provide on an as needed basis ongoing technical support and training services for owner's staff relating to the maintenance and operations of the installed products/solutions ensure their cost effective operational condition through the life cycle stipulated. This may be accomplished through maintenance and support

agreements.

5.2.1.3.5 Have indoor and outdoor lighting service technicians that can provide upon request system assessment, evaluation, aiming, retrofit and repair services for the product lines offered in response to this solicitation.

5.2.2 As an indefinite-quantity solicitation and because there are twenty-three AEPA Members who are located throughout the US that have indicated their interest in potentially utilizing the resulting contract(s) based on this solicitation, and without knowing the type and kind of potential project's and their locations, as well as other factors and conditions that are unknown. AEPA is providing the following details, instructions, specifications and information as a basic specification, foundation and guideline for bidders to become aware of and understand the nature and scope of this indefinite-quantity solicitation; the type, level and quality of indoor and outdoor lighting products, systems, solutions and services being solicited. The following is not all inclusive and therefore bidders are asked to provide an extensive and complete product line to meet the needs and requirements of lighting projects covered by this solicitation's scope of work. In preparing for, developing, conducting and completing projects covered by Lot 1, the bidder and its lighting system manufacturer or manufacturer's representative must meet the following criteria:

5.2.2.1 The contractor's project manager shall in conjunction with the owner's representative conduct a pre-inspection prior to any pre-construction, construction or close-out meeting where the owner is expected to take action, accept and/or sign-off on work that has been completed. This is to ensure that all work meets or exceeds the projects specifications and requirements. Any discrepancies shall be corrected and/or communicated to the owner.

5.2.2.2 The lighting system manufacturer shall inspect and certify to the facility owner that the solution installed meets and/or exceeds the manufacturer's specifications and installation requirements.

5.2.2.3 The bidder and the lighting system manufacturer shall guarantee the usability of the lighting system installed is appropriate for the site conditions that exist and for the intended uses as identified with the project's scope of work for a the period stipulated within to project's contract documents, commencing with the date of substantial completion and acceptance by the owner. The warranty coverage shall not be limited to the amount of usage.

5.2.2.4 Any/all warranty terms, conditions, stipulations and/or requirements must be provided, discussed and accepted, in writing, by the owner prior to the issuing and execution of the project's contract documents and the owner's purchase order.

5.2.2.5 Provide quality electrical services to include, but not limited to:

5.2.2.5.1 Evaluating new project site or existing facility;

5.2.2.5.2 Discussing available product/system/solution, their specifications, features, performance, options and determining the proper and applicable product/system/solution to meet the owner's project's needs and requirements;

5.2.2.5.3 Upgrading, renovating and/or rewiring the facility's electrical distribution system and lighting fixtures; and/or

5.2.2.5.4 Provide the Owner's maintenance staff with technical assistance, training and additional resources to safely maintain and operate the installed lighting system.

5.2.2.5.5 Test, assesse and/or evaluated provided lighting products/systems/solutions/ components as required by the manufacturer's instructions, industry standards contract documents, federal, state and local codes. The contractor shall schedule the inspections/test in advance and provide the owner's representative in advance written information on who will be conducting the activity, how it will be conducted, clearly identifying the methods, procedures and protocols to be utilized, the

applicable standards in which results will be analyzed, based on and compared to and when the results will be available.

- 5.2.2.6 Project Submittals may include, but are not limited to.
- 5.2.2.6.1 Project Description – Provide a description of all site preparation, materials and supplies to be furnished, even if provided by others.
- 5.2.2.6.2 Detailed description of the lighting system components, their performance and operational specifications to allow the architect, owner’s representative and/or AEPA Member to achieve an understanding of what is being proposed and how it will meet their project’s needs and requirements.
- 5.2.2.6.3 Detailed and stamped construction drawing by a licensed design and/or engineering professional in the AEPA state where the project is to be performed.
- 5.2.2.6.4 Maintenance Instructions – Instructions on how to inspect and maintain the lighting system’s components on an ongoing basis.
- 5.2.2.6.5 Warranty – Written warranty to the project owner upon completion.
- 5.2.2.6.6 Cost Proposal – Detailed breakdown of all costs associated with the design, manufacture, delivery, site preparation, installation and warranty of the proposed lighting system based on the project’s detailed scope of work.
- 5.2.2.7 Project site considerations, investigation, inspections and preparations.
- 5.2.2.7.1 For each indoor and outdoor lighting system solution, the contractor must provide the information necessary for AEPA Member and/or its Members Agency to determine the quality, level, construction components and the performance of the solution proposed.
- 5.2.2.7.2 Site Inspection and Investigation – The ultimate performance and lifecycle of any indoor/outdoor lighting system solution depends to a significant degree on the type, level and construction of materials and equipment being installed for the existing site condition and operational environment. The placement of lighting fixtures, the exposure to adverse weather conditions and the construction of adjacent buildings, facilities and structures can create problems and cause poor performance. It is, therefore, necessary for the Contractor, in cooperation with the owner, to ensure that a complete and accurate site inspection/investigation has been performed.
- 5.2.2.7.2.1 The scope and level of any site inspection/investigation must be flexible and dependent on the nature of the conditions that exist at a particular site and the degree of risk that the owner is willing to acknowledge and accept regarding adverse effects. During the design and development of the project, the Contractor will advise and consult with the owner to determine the scope and level of site inspection required. Obviously, the more serious site conditions may require an adequate study, which would include, but not be limited to:
 - 5.2.2.7.2.1.1 Adverse environmental site conditions.
 - 5.2.2.7.2.1.2 Special usage of the facility for a variety of activities.
 - 5.2.2.7.2.1.3 Adjoining facilities and their impact of the project site conditions.
 - 5.2.2.7.2.2 Soils should be classified, in general, in accordance with the visual manual method of identification of soils, utilizing the Unified Soil Classification System (ASTM Methods D 2488 “Description of Soil Visual Manual Procedure”, and D 2487 “Classification of Soils for Engineering Purposes”). It is not intended, however, that a rigorous use of these methods be required, but only use of terminology that will describe the soil conditions in terms of soil types using the Unified Soil Classification symbols, such as CL, CH, etc.
 - 5.2.2.7.2.3 Data obtained from this investigation should be prepared and submitted as part of the project record documents for later reference, if necessary, or for review by a qualified engineer if an evaluation is decided upon by the owner and/or the Contractor.

- 5.2.2.7.2.4 Once a site study has been completed, identified risks require the owner and the contractor to make a joint decision as to the level of site preparation required before the project is started. This is done so that an adequate site can be available for the field construction and, in the event of any problems developing because of sub-grade conditions, the responsibility can be clearly allocated between the owner and the Contractor.
- 5.2.2.7.2.5 All information and communications relating to the site inspection and investigation shall become part of the project's documentation.
- 5.2.2.7.3 Site Preparation: Earthwork and Sub-Base Construction.
- 5.2.2.7.3.1 For new installation construction, the site must be properly prepared in accordance with project design documents that were prepared based on the site inspection and investigation which addressed:
- 5.2.2.7.3.1.1 Site grade and elevations relating to the proper placement of the light pole foundations.
- 5.2.2.7.3.1.2 The sub-soil, topsoil and drainage conditions.
- 5.2.2.7.3.1.2.1 The existence of peat or other unacceptable organic soils at the site.
- 5.2.2.7.3.1.2.2 Uncontrolled fill materials at the site.
- 5.2.2.7.3.1.2.3 Expansive soils at the site.
- 5.2.2.7.3.1.2.4 High ground water conditions or surface water retention areas (low area flooding).
- 5.2.2.7.3.1.2.5 If an existing athletic facility, type of facility, how is it being utilized and by whom.
- 5.2.2.7.3.2 Sub-Base Embankment.
- 5.2.2.7.3.2.1 Embankment is fill material necessary to raise the grade at the site, after removal of unsuitable materials identified during the site investigation, to provide the surface on which to place the lighting system pole foundations for the proposed project.
- 5.2.2.7.3.2.2 While well-graded granular soil is preferred for embankment fill, normally locally available soil is used for economic reasons. The material should be free of organic or expansive material, and of particles greater than 1 ½" in dimension. It should be compacted to 95% of the maximum density determined by ASTM Method D 698 (Modified Proctor). The water content of the fill should be reduced by aeration or increased by adding water, as necessary to achieve the required compaction.
- 5.2.2.7.3.2.3 Where the natural soil at the bottom of the sub-base course is stable, as evidenced by soil testing, hand auger or other exploration, base course materials can be placed on this soil. Soft clay and plastic soils should be appropriately stabilized.
- 5.2.2.7.3.3 As noted herein, some owners may choose to have the project site designed, developed and prepared by its own crews or by another Contractor. In all cases, prior to the lighting product/system/solution contractor/manufacturer/installer taking possession/control of the project site, shall make arrangements for and conduct an inspection of the current site conditions, sub-base and supply a written certificate indicating that the current project site/sub-base meets or exceeds the manufacturer's, industries', contract documents specifications and requirements for the installation of the lighting system or components and accepts the responsibility for the project site from that date forward for the purpose of obtaining manufacturer's warranty for the finished athletic/recreational facility lighting project.

5.2.2.8 Design Requirements.

- 5.2.2.8.1 Proposed indoor/outdoor lighting products/systems/solutions shall be designed, engineered and manufactured by a nationally-recognized manufacturer(s) by the national/international lighting industry and professional associations/organizations for specializing in the designing and providing indoor

and/or outdoor lighting system products/systems/solutions for all levels and types of educational and public athletic, recreational and other public facilities.

5.2.2.8.1.1 Manufacturer must have a minimum of ten (10) years of experience in the manufacture of indoor and/or outdoor lighting systems which meet and/or exceed the standards and guidelines established and adopted by – IESNA, ASBA and other related professional and industry organizations activity involved with the governing and overseeing of sporting, recreational and public events and facilities covered by this solicitation.

5.2.2.8.1.2 The manufacturer and/or contractor must have on staff, or have under contract and available, an engineer(s) or architect(s) registered and licensed to design lighting projects in the various AEPA states. They must have a minimum of five (5) years of actual indoor and/or outdoor lighting system/project design and engineering experience working with the proposed products/systems/solutions being offered. They shall possess the background, knowledge and ability to review and certify that the proposed project sites, site conditions and lighting system being proposed and to be installed meets or exceeds the design criteria of the project specifications, site conditions, industry standards, state and local building and electrical codes, exceed the minimum requirements of the system’s design performance standards set by the manufacturer in order for the end product to meet its projected lifecycle and functionality. AEPA understands and acknowledges that there are established codes and standards that require that these facilities have an architect’s or engineer’s seal/stamp on the plans, which is registered in the individual AEPA state and the contractor may not have an individual on staff that is licensed in all of the AEPA states, however through the bidders noted past experience in the AEPA states will indicate its ability and capacity to acquire the required professional services when needed.

5.2.2.8.2 Lighting system design

5.2.2.8.2.1 The initial illuminance level shall be calculated using the published lumen output of the lamp, after a 100 hour burn in period as per the manufacturer’s specification sheet, multiplied by the light loss factor (LLF).

5.2.2.8.2.2 The initial illuminance level shall be calculated using the appropriate ballast factor for the lamp/ballast combination in accordance with the manufacturer’s specification sheet. Initial light levels for “constant light level” systems must be 10% higher than specified maintained light levels. Light levels shall never drop below defined “maintained footcandle level” specified.

5.2.2.8.2.3 The initial illuminance level shall be calculated using a LLD value of 1.00.

5.2.2.8.2.4 The maintained illuminance level shall be calculated using the published lumen output of the lamp, at 70 percent of the rated lamp life as per the manufacturer’s specification sheet. The maintained illuminance level shall also be calculated using the combined light loss factor (LLF).

5.2.2.8.2.5 The maintained illuminance level shall be calculated using the appropriate ballast factor for the lamp/ballast combination in accordance with the manufacturer’s specification sheet.

5.2.2.8.2.6 The maintained illuminance level shall be calculated using a LTF value as per the manufacturer’s specification sheet.

5.2.2.8.2.7 The maintained illuminance level shall be calculated using a LLD value of 0.9.

5.2.2.8.2.8 The maintained illuminance level shall be calculated using a LDD value of 0.95.

5.2.2.8.2.9 Glare and spill light control may be achieved by internal and/or external hardware. Glare shall be minimized from the lamp and the reflector when standing in front of the lighting assembly beyond the property line and when standing 90 degrees perpendicular to the lighting assembly beyond the property line.

- 5.2.2.8.2.10 Structural Strength: The luminaire assembly as shown in the manufacturer's submittal shall be capable of withstanding forces equal or greater than those stated for the location of the lighting project site location and/or state/local codes to wind speeds based on AASHTO structural design criteria.
- 5.2.2.9 System Description.
- 5.2.2.9.1 Materials.
- 5.2.2.9.1.1 For outdoor facilities, the light poles must be a minimum of 4' round, straight painted galvanized steel to protect from caustic environments for low maintenance.
- 5.2.2.9.1.1.1 Concrete foundations for the light poles must be designed by a registered professional engineer to take into account any surface/subsurface conditions, withstand wind loadings exceeding the 50 year mean recurrent isotach wind maps identified wind speed for the individual location in which the lighting system is to be installed. Foundation shall be drilled pier type with structural steel as required. Pre-cast concrete bases are acceptable as long as they meet or exceed the local code requirements.
- 5.2.2.9.1.1.2 Concrete for the foundations shall have 28 days, 3,500 psi compressive strength.
- 5.2.2.9.1.1.3 Anchor Bolts: Galvanized conforming to ASTM-A36 with minimum yield strength of 36,000 psi. Anchor bolt (4) size to be 3/4" x 30" with two (2) zinc plated nuts and washers per bolt. Anchor bolts to be placed in an 11" diameter bolt circle pattern with a bolt projection of 3-1/4" above foundation.
- 5.2.2.9.1.2 Lighting pole structure
- 5.2.2.9.1.2.1 The pole shaft structure shall be designed for the combined effective projected area (EPA) and weight of all applicable appurtenances (i.e. mounting brackets) and fixtures. Concrete poles or pole sections are not acceptable due to excessive weight.
- 5.2.2.9.1.2.2 Each section of the pole shaft shall be of single-ply material and be made from a single sheet of steel with no circumferential welded splices.
- 5.2.2.9.1.2.3 The pole shafts cross-section shall be round. The pole shaft sections shall be high-strength steel meeting the requirements of ASTM A570 GR65(65 ksi yield) and/or ASTM A595 GR55(55 ksi yield).
- 5.2.2.9.1.2.4 Each slip joint shall be assembled in the field by telescoping the upper female section over the lower male section by a minimum lap of 1.5 times the inside diameter of the "female" section. The female, telescoped area must be welded both inside and out to insure 100% weld penetration in an area equal to the minimum slip distance plus 10 inches.
- 5.2.2.9.1.2.5 Embedment Shaft Section:
- 5.2.2.9.1.2.5.1 The shaft section of the pole structure shall be a single piece round tapered shaft section. The taper rate and material cross section properties shall match the adjoining section.
- 5.2.2.9.1.2.5.2 The lower shaft section shall be embedded into the earth a minimum distance of 10% of the free standing height of the structure plus 2' or as recommended by Engineer.
- 5.2.2.9.1.2.5.3 The shaft section shall be galvanized in accordance with ASTM A123 specifications. The entire embedded shaft portion shall also be externally coated with Corrocote II epoxy coating up to 6" above the ground line. Concrete poles or pole sections are not acceptable due to excessive weight.
- 5.2.2.9.1.2.5.4 Foundation shall be 3,500 psi concrete.
- 5.2.2.9.1.2.6 The Pole shaft sections shall be hot dip galvanized in accordance with the requirements of ASTM A123 specifications. Each shaft assembly must be completely coated, inside and out, in a single dip. Double dipping will not be permitted in compliance to USGA (United States Galvanizing Association) recommended

practices and procedures to prevent acid entrapment. All miscellaneous connecting hardware shall be galvanized in accordance with ASTM A153 specifications.

- 5.2.2.9.1.2.7 All crossarms shall be factory pre-wired and assembled. The lighting pole system shall consist of concrete encased galvanized steel poles with a factory pre-wired crossarm assembly. All wiring/connections should be factory assembled from the fixture mounting location to the base of the pole. No field connections or plug type connectors are allowed. Strain relief device(s) must be factory installed in pre-wired crossarm assembly to ensure no weight or tension is placed on electrical connections.
- 5.2.2.9.1.2.8 All factory pre-wiring must be done in a manner that requires no electrical connections inside the pole or crossarm assembly to be made in the field. Lighting supplier must provide warranty as outlined herein.
- 5.2.2.9.1.2.9 No outdoor lighting system proposing direct buried wood or steel light poles will be accepted.
- 5.2.2.9.1.3 Lighting fixtures and wiring systems offered must be designed and manufactured to protect from deterioration from environmental conditions such as weather and ultraviolet exposure. The reflector system must control and redirect the spill light, minimize glare and light trespass in order to meet local environmental restrictions.
- 5.2.2.9.1.4 Luminaires
- 5.2.2.9.1.4.1 Luminaires shall comply with current NEMA standard publication "Outdoor Floodlighting Equipment" as applicable with appropriate mounting hardware. Luminaires shall be provided with electrical component housing and optical assembly as an integral unit.
- 5.2.2.9.1.4.2 Each integral floodlight shall be a complete assembly of lamp, ballast, reflector and housing to allow each floodlight to be removed and replaced as a single unit.
- 5.2.2.9.1.4.3 In order to insure adequate heat dissipation, each ballast shall be mounted within its own enclosure with a minimum surface area of 4.5 square feet. Multiple ballasts in a single enclosure are not acceptable.
- 5.2.2.9.1.4.4 The ballast housing shall be light-weight, corrosion-resistant, hydroformed aluminum or "die cast" ballast housing and shall be thermally as well as mechanically isolated from the lamp socket and its associated operational heat buildup.
- 5.2.2.9.1.4.5 Socket housing shall be cast aluminum, thermally and mechanically removed from direct contact with the ballast enclosure. The socket shall have a white glazed porcelain body. The leads shall be welded directly to the copper alloy, nickel-plated screw shell and center contact. Socket leads shall be #16 AWG 200 degrees C, 600 V. silicone. The optical assembly shall mount directly to the socket assembly by a 4 hole, key-hole slot pattern. A one piece closed cell, vulcanized silicone gasket shall be between the socket and optical housing providing weather tight integrity. Material containing asbestos will not be allowed. The socket housing shall provide the vertical aiming function of the optical assembly and be equipped with an anodized aluminum vertical degree aiming scale and repositioning stop. Vertical aiming shall be accomplished by loosening the aiming scale set screw (1) 5/8 - 11 UNC cadmium plate optical adjustment locking nut and bolt assembly.
- 5.2.2.9.1.4.6 The reflectors shall be anodized spun aluminum with galvanized steel mounting support ring.
- 5.2.2.9.1.4.7 Luminaire shall be UL Listed with a minimum reflector diameter of as specified. Lens shall be thermal shock and impact resistant, clear tempered glass sealed to reflector by high temperature silicone gaskets. Lens ring shall be stainless steel

- secured by a minimum four point latching and a stainless steel hinge.
- 5.2.2.9.1.4.8 Luminaires shall be UL listed for wet locations and 25 degrees C. ambient operation.
 - 5.2.2.9.1.4.9 All external screws and fasteners shall be stainless steel unless otherwise specified.
 - 5.2.2.9.1.4.10 All external surfaces and components not of stainless steel (unless otherwise specified above) shall be painted to match the pole and crossarm assembly. The finish shall be oven cured polyester enamel, electrostatically applied. Written documentation shall be provided verifying compliance with ASTM B117 parameters. However, the salt fog test shall be conducted for not less than 1000 hours.
 - 5.2.2.9.1.4.11 Each fixture shall have a removable, clear, flat, impact and thermal resistant glass lens. The lens rim shall be stainless steel and shall be attached to the reflector with a stainless steel hinging mechanism and four fixed position stainless steel spring retention latches. The lens assembly shall incorporate a one piece non-leaching EPDM (Ethylene Propylene Diene Methylene) gasket that encompasses the glass lens on both internal and external surfaces, the full circumference of its edge as well as the formed reflector lip detail.
 - 5.2.2.9.1.4.12 The lighting manufacturer shall provide computer aiming to assure lighting is aimed per photometric design.
 - 5.2.2.9.1.4.13 Lamps shall be 1500 watt metal halide and shall meet ANSI specification. Lamps shall be as manufactured by General Electric, EYE or Sylvania.
 - 5.2.2.9.1.4.14 The lamp shall be 1500 watt Metal Halide rated for 3000 hour life and shall meet ANSI designation BT56 and be manufactured to current industry standards. The lamps used must be commercially available through local electrical distribution.
 - 5.2.2.9.1.4.15 Ballasts shall be integral mounted to optimize heat dissipation within its own enclosure with a minimum surface area of 4.5 square feet. Ballasts shall be a 100% copper wound peak-load auto-transformer as manufactured by Advance Transformer or Howard Transformer. Ballast losses shall not exceed 110 watts for 1500 watts. The ballast and capacitor shall be mounted horizontally opposed to one another to minimize the effect of ballast heat on the capacitor. Both the ballast and capacitor shall be heat sinked to ballast housing. All ballasts electrical data shall be confirmed by manufacturers published data.
 - 5.2.2.9.1.5 The lighting control system must allow for the variety of situations that exist. For example, a control and sensor system to turn lights on and off according to a preset schedule or by environmental light levels. If wireless options are available, they should be offered.
 - 5.2.2.9.1.5.1 Remote Monitoring System shall monitor lighting performance and notify owner if individual luminaire outage is detected so that appropriate maintenance can be scheduled. The controller shall determine switch position (Manual or Auto) and contactor status (open or closed).
 - 5.2.2.9.1.5.2 Remote Lighting Control System shall allow the owner with a security code to schedule on/off system operation via a website, phone, fax, or email for up to 10 years in advance. Manufacturer shall provide trained staff and shall be available 24/7 to provide support as needed by the owner. The owner needs the option to assign various security levels to schedulers by function and/or fields. This function must be flexible to allow a range of privileges, such as full scheduling capabilities for all fields and/or to only have permission to execute "early off" commands by phone. Control unit shall accept and store 7-day schedules, be protected against memory loss during power outages, and shall reboot once power is

regained and execute any commands that would have occurred during outage.

- 5.2.2.9.1.6 Manufacturers shall provide a web-based database of actual field usage and provide reports by facility and user group.
- 5.2.2.9.1.7 All outdoor structures shall be equipped with lightning protection meeting NFPA 780 standards.
- 5.2.2.9.1.8 Voltage drop to the disconnect switch located on the poles should not exceed three (3) percent of the rated voltage per IESNA RP-6-01.
- 5.2.2.9.1.9 The product lines offered must contain lighting systems that could be used to retrofit or replace existing systems, using as much of the existing physical infrastructure as possible.
- 5.2.2.9.1.10 The system control and monitoring cabinets offered must be designed, manufactured and available for both indoor and outdoor installation to meet individual facility requirements. The cabinets must be equipped with some kind of access control mechanism, constructed of aluminum and rated NEMA Type 4, and cabinet shall contain custom-configured contactor modules for 30, 60, and 100 amps, labeled to match field diagrams and electrical design and manual Off-On-Auto selector switches.
- 5.2.2.9.1.2 Performance.
- 5.2.2.9.1.2.1 Lighting System
- 5.2.2.9.1.2.1.1 The calculated horizontal average illuminance level for each primary playing area shall be as follows: (Alternate systems require formal may be offered including photometric lighting designs. Acceptable alternates will be approved as part of the contract award process.

Field Size	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
330'x195'	30'	4 (60')	37.5 FC
330'x195'	30'	4 (60')	62.5 FC
360'x225'	30'	4 (70')	37.5 FC
360'x225'	30'	4 (70')	62.5 FC
Field Size	Base Path	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
200' Radius	60'	4 (60')	62.5 FC (infield) 37.5 FC (outfield)
200' Radius	60'	4 (60')	87.5 FC (infield) 62.5 FC (outfield)
310 x 350 x 310	90'	6 (70')	62.5 FC(infield) 37.5 FC (outfield)
310 x 350 x 310	90'	6 (70')	87.5 FC(infield) 62.5 FC (outfield)
325 x 380 x 325	90'	8 (70')	62.5 FC(infield) 37.5 FC (outfield)
325 x 380 x 325	90'	8 (70')	87.5 FC(infield) 62.5 FC (outfield)

Field Size	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
360' x 160'	65'	4 (70')	37.5 FC
360' x 160'	65'	4 (70')	62.5 FC
360' x 160'	65'	4 (80')	87.5 FC
360' x 160'	110'	4 (100')	62.5 FC (infield) 37.5 FC (outfield)

# Courts	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
4	15'	4 (60')	37.5 FC
4	15'	4 (60')	62.5 FC
5	15'	4 (60')	62.5 FC

Field Size	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
330' x 195'	30'	4 (60')	37.5 FC
330' x 195'	30'	4 (60')	62.5 FC
360' x 195'	30'	4 (70')	37.5 FC
360' x 195'	30'	4 (70')	62.5 FC

Field Size	Base Path	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
200' Radius	60'	4 (60')	62.5 FC (infield) 37.5 FC (outfield)
200' Radius	60'	4 (60')	87.5 FC (infield) 62.5 FC (outfield)
310 x 350 x 310	90'	6 (70')	62.5 FC(infield) 37.5 FC (outfield)
310 x 350 x 310	90'	6 (70')	87.5 FC(infield) 62.5 FC (outfield)
325 x 380 x 325	90'	8 (70')	62.5 FC(infield) 37.5 FC (outfield)
325 x 380 x 325	90'	8 (70')	87.5 FC(infield) 62.5 FC (outfield)

Field Size	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
360' x 160'	65'	4 (70')	37.5 FC
360' x 160'	65'	4 (70')	62.5 FC
360' x 160'	65'	4 (80')	87.5 FC
360' x 160'	110'	4 (100')	62.5 FC (infield) 137.5 FC (outfield)

# Courts	Pole Setback	Pole Quantity (Mtg. Ht.)	Light Level (Initial FC)
4	15'	4 (60')	37.5 FC
4	15'	4 (60')	62.5 FC
5	15'	4 (60')	62.5 FC

5.2.2.9.1.2.1.1.2 The maximum-to-minimum uniformity ratio for all lighting on the primary playing/event area shall meet I.E.S. Recommendations for the type and level of sporting and/or recreational event/activity being conducted on the field/court.

5.2.2.9.1.2.1.1.3 The coefficient of variance for the primary event/activity area shall I.E.S. Recommendations for the activity/event being conducted on the field/court.\

5.2.2.9.1.2.1.1.4 The uniformity gradient of the primary activity/event area shall meet I.E.S. Recommendations for the activity/event being conducted on the field/court.

5.2.2.9.1.3 Light level must meet or exceed those standards established and published by IESNA RP-6-01, which identifies minimum and maximum requirements for horizontal foot-candles maintained, light uniformity, grid size, and grid points for the various types of playing areas and surfaces.

5.2.2.9.1.4 Playing surfaces shall be lit to an average constant or target light level and uniformity. Lighting calculations shall be developed and field measurements

taken on the grid spacing with the minimum number of grid points specified with the light meter held horizontally 36 inches above the field surface. Measured average illumination level shall be +/- 10% of predicted mean in accordance with IESNA RP-6-01, and measured at the first 100 hours of operation.

- 5.2.2.9.1.4.1 The pre- and post-project light tests shall be submitted on forms that show the readings laid out in a grid. The grid shall vary depending on the type of athletic/recreational field.
- 5.2.2.9.1.4.1.1 **Football:** 30' X 30' grid with a minimum of 60 readings.
- 5.2.2.9.1.4.1.2 **Baseball with 90' Base Paths:** 30' X 30' grid with a minimum of 25 readings in the Infield. The number of readings in the Outfield will vary with the dimensions of the Outfield. Standard IESNA guidelines shall apply when laying out the grid.
- 5.2.2.9.1.4.1.3 **Baseball with 60' Base Paths:** 20' X 20' grid with a minimum of 25 readings in the Infield. The number of readings in the Outfield will vary with the dimensions of the Outfield. Standard IESNA guidelines shall apply when laying out the grid.
- 5.2.2.9.1.4.1.4 **Softball with 60' Base Paths:** 20' X 20' grid with a minimum of 25 readings in the Infield. The number of readings in the Outfield will vary with the dimensions of the Outfield. Standard IESNA guidelines shall apply when laying out the grid.
- 5.2.2.9.1.4.1.5 **Soccer:** 30' X 30' grid. The number of readings will vary with the dimensions of the field. Standard IESNA guidelines shall apply when laying out the grid.
- 5.2.2.9.1.4.1.6 **Multi-Use fields:** Multi-purpose fields shall be reported based on a 30' X 30' grid.
- 5.2.2.9.1.4.2 The illumination trespass limitations on neighboring properties/areas from stadium/event area lighting shall be by local zoning codes of the facilities location. Maximum computed or measured footcandles at the neighboring property/area line shall not exceed the local ordinances/codes or the following, whichever is more stringent:

	Footcandles	
	<u>Horizontal</u>	<u>Vertical</u>
Single family and two-family residential districts	0.5	1.0
Multiple family residential districts	0.5	1.0
Non-residential districts, streets	3.0	3.0
Light industrial districts	5.0	5.0

- 5.2.2.9.1.4.3 Shop drawings shall clearly identifying the lighting system layout and indicating the number of poles and their locations that are required to provide the necessary lighting. The drawing shall indicate the number, kind, wattage and position of each fixture to be utilized on an individual light pole.
- 5.2.2.9.1.4.4 Workmanship – The completed lighting system shall be plumb, both in line and transverse to the layout of the field. Details of installation not shown or specified shall be performed in keeping with good electrical practices and per manufacturer's instructions and recommendations.
- 5.2.2.9.1.4.5 Excavation – Contractor must take care when trenching for conduit. Check plans and with appropriate local authorities for the location of utilities, sprinklers, etc., on site. Contractor to backfill trenches and remove excess debris.
- 5.2.2.9.1.4.6 Erection, installation and configuration of lighting system components shall be done according to approved project plans and manufacturer's installation instructions and federal, state and local codes.
- 5.2.2.9.1.4.7 Supply of voltage selected should be the highest available, 277/480 volt, three phase system for large applications or 120/208 volt, single phase for smaller applications. Voltage drop to be limited to 3% or less from the source of the luminaire. All wiring to comply with the National Electrical Code, applicable state and local electric and building codes.

5.2.2.9.1.5 Warranty.

- 5.2.2.9.1.5.1 The Contractor shall submit its manufacturer's warranty that guarantees the usability of the lighting system for its intended use for a ten (10) year period commencing with the date of acceptance of the owner. The warranty coverage shall not be prorated nor limited to the amount of usage. The warranty submitted must have the following characteristics:
- 5.2.2.9.1.5.1.1 Must be a warranty from a single source covering workmanship, all self-manufactured/produced or procured materials.
 - 5.2.2.9.1.5.1.2 Any warranty offered under this solicitation must be secured by an insurance/bonding company nationally recognized and licensed to do business in the individual AEPA state or have in place a funded financial reserve (fund) to assure fulfillment of the warranty for the full term. Note: depending on the size and/or the amount of individual projects, the facility owner may waive this requirement in writing.
 - 5.2.2.9.1.5.1.3 Must comply with governing federal, state and/or local laws and provide full coverage for ten (10) years from the date of warranty activation.
 - 5.2.2.9.1.5.1.4 Must warrant materials and workmanship.
 - 5.2.2.9.1.5.1.5 Must warrant that the materials installed meet or exceed the product specifications and industry standards and federal, state and local codes. Guarantee the availability of supplies, replacement materials and components for the athletic and recreational indoor and outdoor athletic lighting systems/solutions installed for the full warranty period.
 - 5.2.2.9.1.5.1.6 Structure warrantee must cover the repair or replace any structural component that proves to be defective for a period of 30 years. Warranty must cover both parts and labor.
- 5.2.2.9.1.6 Maintenance.
- 5.2.2.9.1.6.1 The Contractor shall supply the owner with a complete set of written maintenance and instruction manual for proper use and care of the athletic and recreational indoor and outdoor lighting products/systems/solutions provided shall be specific to the indoor and outdoor lighting products/system/solution installed with any specific operational and/or use restrictions/limitations.
 - 5.2.2.9.1.6.2 As an option, the Contractor may provide services to the owner, at an additional cost, to perform regular and ongoing maintenance-related services.
- 5.2.2.9.1.7 System Performance Characteristics.
- 5.2.2.9.1.7.1 All fixtures, ballasts, poles, wires, bulbs, cross members are to meet or exceed the following standards: UL, CSA, NEMA, NEC and local codes.
 - 5.2.2.9.1.7.2 When provided lighting products/systems/solutions are to be tested, assessed and/or evaluated as required by the manufacturer's instructions, industry standards, contract documents, federal, state and/or local codes. The contractor shall schedule the inspections/test in advance and provide the owner's representative in advance written information on who will be conducting the activity, how it will be conducted, clearly identifying the methods, procedures and protocols to be utilized, the applicable standards in which results will be analyzed, based on and compared to and when the results will be available.
- 5.2.2.9.1.8 Project Close-Out System Performance Characteristics.
- 5.2.2.9.1.8.1 The Contractor and the Owner's representative shall conduct a complete and extensive site inspection of all work performed and if applicable perform appropriate tests and note the results of the products/system/solutions provided and installed.
 - 5.2.2.9.1.8.2 The Contractor shall provide the owner's personnel with the training necessary for them to develop a complete knowledge and understanding of the supplies, materials and equipment required to maintain and keep the installed lighting

- system/solutions in good working condition through its stated lifecycle.
- 5.2.2.9.1.8.3 Based on the owners individual project requirements, provide at least two (2) copies of the project record documents that may include, but is not limited to:
- 5.2.2.9.1.8.4 As-built drawings showing the actual locations of all electrical supply lines, control equipment, lighting pole (foundations, structure, dominations), lighting system mounting (structure, fixture, dominations and configuration) of the installed/provided system.
- 5.2.2.9.1.8.5 Any installed equipment manufacturer's product specifications (materials, operating, and performance), instruction, maintenance and training manuals, bill of materials, warranties and other project related information and materials.
- 5.2.2.9.1.8.6 Any state, local and/or manufacturer's inspection/testing reports or certificates certifying that all state, local and manufacturer's specifications, standards, codes and requirements have been met.
- 5.2.2.9.1.8.7 Warranty Documents may include but are not limited to.
- 5.2.2.9.1.8.7.1 Manufacturer's warranty with all of the forms that were completed and submitted in owner's name and registered with the manufacturer. Within this documentation, the lighting system manufacturer must verify that its factory representative has inspected the installation of the completed project and that all work conforms to the manufacturer's specifications and requirements.
- 5.2.2.9.1.8.7.2 The Prime Contractor shall provide a written warranty to the owner that covers defects in the prep-work, installation, and workmanship, and further warrants that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's representative.
- 5.2.2.9.1.8.8 All project and close-out documents shall be provided to the owner on CD-R or DVD-R in one of the following formats ("AutoCad", MS Word, Excel, PowerPoint, Access, Project, Adobe Acrobat, etc.).
- 5.2.2.9.1.9 Date of final inspection shall be scheduled in advance, with appropriate notice and agreed upon by all parties. The contractor shall provide the owner or its designee, with copies of the printed check-off list, proposed pay application, state and local inspector's sign-off/reports acquired since the last meeting. Any discrepancies will be noted as a punch list item and corrected prior to the next meeting or within the time specify in the contract documents.
- 5.2.2.9.2 If required the, cost for temporary utility services (electrical, etc.) is part of/utilized during the construction process, such costs will be identified and agreed upon in writing by the owner and contractor. Utility services (electrical, water, etc.) utilized by the contractor to maintain a project office trailer, maintenance shop, storage facilities, security lighting, etc., will be the responsibility of the contractor and can only be transferred to the owner on written agreement specifically stating for what contractor's utilities it will be responsible. Copies of such agreements shall be part of the project contract documents and provided prior to any purchase order being issued.
- 5.2.2.9.3 Products used in the construction will be stored in accordance with the manufacturer's instruction, with seals and labels intact and legible. Any materials stored outdoors will be protected from weather (including rain, sleet, hail, wind, sun and snow) by being covered with impervious sheets, but with ventilation to avoid condensation.
- 5.2.2.9.4 By accepting the Member's notice/order to proceed and executing the construction process, the Contractor acknowledges that it has visited the site, is familiar with the current conditions under which the work is to be performed, and understands the scope of work as defined in the contract documents and the product specifications requested.
- 5.2.2.9.5 Final payment shall only be made after the close-out process and the contractor

has address and completed all punch-list items and has accepted the project as being completed.

5.2.3 Substantiating Documentation

- 5.2.3.9 Required Written Responses: Please Note: AEPA reserves the right to deem a bidder's response non-responsive if bidder fails to address the following items by provides the necessary information and/or documentation requested below. The bidder must:
- 5.2.3.10 Respond to and provide all of the necessary documentation requested within Form F Contractor's Qualifications.
- 5.2.3.11 Through written narrative, clearly identify the type, kind, level of indoor and outdoor lighting products/systems/solutions and services it is proposing to provide AEPA Members under this IFB. The response shall include:
- 5.2.3.11.1 The manufacturer's name(s).
- 5.2.3.11.2 The various indoor/outdoor lighting products/systems/solutions offered from each. For bundled lighting systems/solutions include the major component manufacturers/supplier's names and contact information.
- 5.2.3.11.3 Information on the lighting products/systems/solutions being proposed
- 5.2.3.11.3.2 Samples of photometric design layouts for each scene level showing point by point "initial" footcandle levels for each of the fields listed in item 5.2.2.9.3.2.1 above.
- 5.2.3.11.3.3 Letter on lighting product's/system's/solution's manufacturer's letterhead stating the energy consumption during its lifecycle and guaranteeing the energy consumption will not increase over time.
- 5.2.3.11.3.4 Letter on lighting products'/systems'/solutions' manufacturer's letterhead stating and guaranteeing its lighting products/systems/solutions designs meet ALL recommendations of The Illumination Engineering Society of North America RP6-01.
- 5.2.3.11.3.5 Provide and/or allow access by internet to complete technical specifications, data sheets and information on all proposed indoor/outdoor lighting technologies (products/ systems/solutions) being offered. Product data shall include, but is not limited to.
- 5.2.3.11.3.5.1 Photometric designs(including scene lighting); 5.2.3.11.3.5.2 System/solution controls ;
- 5.2.3.11.3.5.3 Luminaires ;
- 5.2.3.11.3.5.4 Lampes ;
- 5.2.3.11.3.5.5 Ballasts ;
- 5.2.3.11.3.5.6 Pole assembles ; and
- 5.2.3.11.3.5.7 Engineered foundation
- 5.2.3.11.3.6 On Form F2 note any product/system/solution exceptions, deviations and/or discrepancies taken relating to industry standards, federal, state and/or local electrical codes.
- 5.2.3.11.4 Certified copies of independent (third-party) laboratory testing and analysis reports stating the products/systems/solutions meets, exceeds and/or complies with the industry standards identified herein.
- 5.2.3.11.5 Provide or make available through internet access product/system/solution specification/data sheets and related product information.
- 5.2.3.12 Completed information on any subcontractor that will be utilized to provide, install and/or perform services proposed in response to this solicitation.
- 5.2.3.13 Samples of the lighting product/systems/solution manufacturer warranty to be provided to the owner covering defects in materials, workmanship, performance failure, and any other feature which is not deemed ordinary wear and tear of the

lighting product/system/solution of the type provided for the stated lifecycle from the date of Substantial Completion. The method/protocols utilized by the lighting manufacturer to verify that their onsite representative has inspected the installation and that the work conforms to the manufacturer's specifications and requirements for the warranty to be issued.

5.2.3.14 Provide documentation demonstrating the lighting product/system/solution manufacturer's/contractor's warranties are supported by an insurance policy, performance bond or other security.

5.2.3.15 Provide a sample of the subcontractor's warranty to be provided to the AEPA contractor covering defects in the work performed, installation workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's designated representative.

5.2.3.16 Demonstrate its ability and capacity to provide and perform the required professional, construction and/or related services for the lighting products/systems/solutions offered herein by providing one (1) project with a total project cost of twenty-five to one hundred thousand dollars (\$25,000 - \$100,000); one (1) project with a total project cost of one hundred and one thousand to five hundred thousand dollars (\$101,000 - \$500,000); and one (1) project with a total project cost that exceed five hundred thousand dollars or more (\$500,000 or more) in each of the twenty-three (23) AEPA Member states who are listed in section 3: Anticipated AEPA Member Agency as interest in participating by providing prior experience of completed jobs. The documentation shall include:

5.2.3.16.1 The general scope of work for each project and the type of lighting products/system/solution installed.

5.2.3.16.2 The manufacturer's product used for each project listed.

5.2.3.16.3 The total cost of each project.

5.2.3.16.4 The institution's name, address, phone number, contact person's name and title for each project.

5.2.3.16.5 Provide the time line (start and end date) for each project listed and provide a brief narrative of the pre-sale and follow-up consulting services offered to ensure institution's satisfaction.

5.2.3.16.6 Provide a brief narrative of the types of warrantee work that you had to go back and perform on the installed products/system/solution since the project was completed and signed off on. Please include the following:

5.2.3.16.6.2 Through your evaluation of the problem, what did you find as the cause of the problem?

5.2.3.16.6.3 What products and/or services did you have to provide to resolve the problem?

5.2.3.16.6.4 Was the customer satisfied with your solution and would they be willing to give you a letter of reference if requested to?

5.2.3.16.6.5 Name of institutions, contact person and phone number.

5.2.3.16.7 Provide a narrative of your company's policies, procedures and strategies to ensure quality control, response to concerns before, during and after the project. Indicate what follow-up, review and oversight process your management team has in place to ensure owner satisfaction.

5.2.4 Cost Considerations

5.2.4.9 The bidder must provide a complete listing of and/or internet access to all indoor/outdoor lighting products/systems/solutions and services that it is proposing to offer under this solicitation. All pricing must be determined by one of the pricing methods defined herein.

5.2.4.10 Price sheets and/or catalogs: For those lighting products/systems/solutions and services that are to be priced using a manufacturer's/bidders published price list or

product catalog. Provide and/or allow access to complete price list and/or catalogs that include product number, product description, unit of measure the product is available, the item's price and what that price includes (delivery, installation, etc.).

- 5.2.4.10.1 The bidder will indicate within their response the amount of discount to be applied to each item to arrive at the individual AEPA state agency's price. Within the terms of this IFB, different manufacturers/products can have different discounts as long as the discounts are clearly stated within the bidder's response. If a price list or MSRP is not available, than the bidder must utilize one of the other established pricing methodologies.
- 5.2.4.10.2 AEPA understands the basic cost of the product/services listed on a published price list indicates the cost of obtaining, manufacturing, and preparing the product/services to ship to the project site. It is also understood that the cost incurred by the bidder to deliver, store, and install the product/service to an individual project site will differ depending on the AEPA state that the project site is located and the distance from the bidder's the distribution point. Therefore, for each of the AEPA states list herein, provide your multiplier/factor to be applied the base AEPA price shown on the published price list to arrive at the individual AEPA state price.
- 5.2.4.10.3 Example: if the published price on the price list is \$1,000 and the AEPA discount is twenty (20%). The AEPA price would be ($\$1,000 \times .20 = \200 amount of AEPA discount and $\$1,000 - \$200 =$ an AEPA price of \$800). If the of the bidder bid a state multiplier/factor of 1.02%, the calculation would be ($\$800 \times 1.02 =$ \$816) to arrive at the AEPA state price \$816.
- 5.2.4.11 The R.S. Means Company publishes a CD Rom and books covering the areas specified in the General Terms and Conditions of this IFB. The current CD/books will be the basis for all quotes and proposals.
- 5.2.4.12 For individual construction cost items within the R.S. Means cost-book (including labor, overhead and profit) will be charged to the member for construction items. Please note that costs relating to non-construction items/assemblies (General Condition items) such as season of the year; home office costs; insurance; project management and supervision; office and storage trailers; pickup trucks, mileage, per diem, transportation/delivery; safety equipment, weather conditions, etc., must be included as part of the contractor's multiplier/factor to be applied to the R.S. Means cost proposal to achieve the AEPA Member's cost for the project. A bid multiplier/factor of 92% indicates that the contractor will charge the R.S. Means total cost times .92 as the billable amount. A bid multiplier/factor of 102% indicates that the contractor will charge the R.S. Means Total Cost times 1.02 as the billable amount. Note the following:
- 5.2.4.12.1 When using the R.S. Means assembly cost items, the contractor must for each individual cost item/assembly indicate and document any of the R.S. Means special factors that are applicable, including factors affecting cost, quality of materials, productivity of labor force, size of project and location.
- 5.2.4.12.2 No R.S. Means (General Conditions Items) such as contract management/supervision, home office costs, travel, per diem, pickup trucks, office trailers, storage facilities etc, are to be included in a project's cost proposal unless it has been requested and approved by the owner.
- 5.2.4.12.3 Any costs associated with permits, state gross receipts and tribal taxes, performance and payment bond costs and other applicable reimbursable cost approved in advance by the member will appear as separate line items on the contractor's quote/proposal.
- 5.2.4.12.4 As noted above the most recent edition of the R.S. Means will be utilized and this will adjust for inflation, material cost and labor rates effective January 1 of each year.

- 5.2.4.12.5 The contractor's R.S. Means bid factor/multiplier will be adjusted on the bidder's contract anniversary date by applying the escalation/de-escalation as measured by the Construction Cost Index (CCI) published in the ENR (formerly known as Engineering News and Record).
- 5.2.4.12.6 If there are goods and services provided under this contract that are not covered by R.S. Means, then the cost of these items will be calculated by utilizing one of the other costing methodologies defined herein.
- 5.2.4.13 Alternative costing methodology: Any items not covered by R.S. Means and/or published price list/catalog. The price will be obtained by issuing, receiving and evaluating three (3) written quotes/bids based on individual AEPA state procurement codes which shall be submitted in advance and approved by the owner prior to being included into any final contract documents. AEPA Members and its Member Agencies/owners reserve the right to accept or reject any quote or proposal including such items and may obtain these items through other procurement means (other existing contracts). The AEPA price will be determined by utilizing two percentages.
- 5.2.4.13.1 Based on the most advantages and cost effective quote received by the contractor. The contractor will apply its normal and customary overhead and profit percentages to the total cost submitted by the subcontractor and add that amount to obtain the normal and customary retail price. (item cost multiplied by percent for overhead/profit equals amount of profit and overhead to be add to item cost equal retail price).
- 5.2.4.13.2 Taking the normal and customary retail price as established in item 1 above the contractor will apply the AEPA discount percentage and subtract this amount from the normal and customary retail price to obtain the AEPA price (item retail price multiplied by percent of AEPA discount equals amount of discount to be subtracted to obtain AEPA price).
- 5.2.4.14 Sole Source: If products or services are required as part of the performance under this contract that can only be obtained and/or manufactured from a single source and fall under the sole source provision that is found within most states procurement codes. The contractor must provide the owner with the necessary documentation to substantiate the purchasing method as sole source.
- 5.2.5 Bidder Qualification Evaluation Criteria for Lot 1.**
- 5.2.5.9 Bidder who do not currently possess the necessary qualifications, trained and experienced personnel, financial capacity, and meet the other requirements stated herein will be disqualified and their response considered non-responsive.
- 5.2.5.10 Bidder shall have been in business at least 10 consecutive years under the same name and shall have performed a minimum of sixty-three (63) athletic, recreational and public facility lighting projects. The bidder must specialized in commercial lighting systems at its primary business and be focused in providing the various indoor and outdoor lighting technologies covered by this solicitation.
- 5.2.5.11 The bidder's past experienced and proven track record in providing, installing, servicing and supporting the lighting products/systems/solutions proposed in response to this solicitation nationwide (indicated AEPA states) as specified herein.
- 5.2.5.12 Bidder demonstrated its ability, capacity, available resources to meet the athletic, recreational and public facility lighting requirements state herein by communicating.
- 5.5.5.4.1 Bidder holds current and has maintained in good standings the necessary manufacturer's, industry, federal, state and/or local certifications, licenses, registrations, insurance and/or bonding required to design, engineer, manufacturer, deliver, install, service and support the indoor/outdoor athletic, recreational and public facilities lighting products/systems/solutions offered in response to this

- solicitation to the indicated AEPA Member states.
- 5.5.5.4.2 The quality, level, background and experience of its in-house and/or contracted personnel/subcontractors (professional design, engineering, consulting, sales, project management, installers, inspectors and support personnel to meet the solicitation's requirements.
- 5.5.5.4.3 Maintains and/or has access to an adequate inventory of indoor/outdoor lighting and electrical supplies, materials, equipment, structures, fixtures, etc., to manufacturer, provide, install, configure, service and support the products/systems/solutions offered in response to this solicitation and complies with its requirements.
- 5.5.5.4.4 AEPA reserves the right to reject any bid if the evidence/documentation submitted by, or investigation of, such bidder fails to satisfy the AEPA that the bidder can properly qualify to carry out the obligation of any part of the products and services proposed in response to this solicitation.
- 5.5.5.4.5 The ability of any bidder to demonstrate its ability and capacity; obtain and/or hold the appropriate certifications, licenses and/or registrations required by any of the indicated AEPA Member states; possess the financial resources to obtain and proved individual project performance and payment bonds and provide the products and services offered as required; and has the necessary insurances in place to protect both itself, its subcontractors, and the individual project owners as required.
- 5.5.6 Cost evaluation will be based on a point system with points being awarded for being a low to high bidder for each cost evaluation item, that is, contractor, discount off R.S. Means, overhead and profit percentage markup, mileage charge, per diem rate, travel time, etc. If a bidder leaves out an item that is required, AEPA will allot zero (0) points to that item, and if awarded a contract, cannot be used in providing products or services. The low bidder will receive the full point value and all other bidders will receive points calculated as follows:
- (Lowest Bid / Other Bid) x point value
- 5.5.6.4 Cost Evaluation Information (Form G): The following factors will be used to evaluate and award this solicitation. Please note that these are only a few items selected to do the cost evaluation. They must provide all of the necessary pricing information required herein.
- 5.5.6.4.1 General Cost Items
- 5.2.2.1.1.1 Performance and Payment Bond Costs: This represents the cost the Contractor incurs to provide a performance and payment bond to the owner for an individual project when it is required. The bidder is to indicate the percentage rate charged on the total cost of an individual project to obtain a bond, and the documentation to substantiate the rate, that is, two percent (2%).
- 5.2.2.1.1.2 Bonding Capacity: This represents the bidder's maximum level of bonds that it can obtain at any one time. Bidder is to indicate its bonding capacity and provide documentation from a security company to substantiate the amount indicated.
- 5.2.2.1.1.3 Bidder's bid factor/multiplier off R.S. Means costing of products and services relating to construction projects during Normal Hours (Monday through Friday 7:30 am to 4:30 pm) and not covered by other costing methods.
- 5.2.2.1.1.4 Bidder's bid factor/multiplier off R.S. Means costing of products and services relating to construction projects Outside Normal Hours (Monday through Friday 4:30 pm to 7:30 am, Saturday and Sunday) and not covered by other costing methods.
- 5.2.2.1.1.5 Alternative Method of Costing: Percentage of overhead and profit. This method includes custom manufactured items, items not covered by other R.S. Means or sole source items. Bidder is to indicate the percent of overhead and/or markup to be

applied to these costs to obtain the retail cost. Example: Item cost \$1,000 multiplied by percent of profit/overhead 20% equals \$200 for overhead and profit. Item cost is \$1,000 plus overhead and profit of \$200, equals a retail price of \$1,200. Note this percentage has no relationship to the R. S. Means costing method indicated above.

- 5.2.2.1.1.6 Alternative Method of Costing: Percentage of AEPA Discount to obtain AEPA Price (item retail price multiplied by percent of AEPA discount equals amount of discount to be subtracted from retail price to obtain AEPA price). Example: Item retail cost \$1,200 multiplied by percent of 10% AEPA discount equal discount of \$120. Retail cost \$1,200 less the AEPA discount of \$120, equals the AEPA price of \$1,080. Note this percentage has no relationship to the percentage of discount of manufacturer's/suppliers price sheets or catalogs indicated below.
- 5.2.2.1.1.7 Discounts Provided on Price List and Catalogs: This represents the average discount provided by the bidder on stated prices. Note different product lines and/or category of products on published price sheets may be offered at different discount percentages. If different discount percentages are offered, AEPA will calculate an average percentage for evaluation purposes.
- 5.2.2.1.1.8 Provide for each of the AEPA states listed, your multiplier/factor to be applied to the AEPA price, calculated from the published price list to arrive at the individual AEPA state price.
- 5.2.2.1.1.9 Bidder's Support for AEPA Pricing: This is the percent of difference between what the bidder's price to AEPA and the price that the bidder would offer the same products directly to any public educational/governmental institution in another state. The bidder's AEPA price is \$100, the bidder's direct price to public educational/governmental institutions is \$103. The difference is 3% percent.
- 5.2.2.1.1.10 Utilizing the bids submitted for the above items, individual items will be selected for evaluation purposes. Bidders must indicate for each of the items what their cost would be to provide and install each of the items listed in each of the twenty-four AEPA states.

5.3 Lot 2

- 5.3.1 Provide a complete and extensive line of consulting, design, engineering, inspection, maintenance, repair and renovation (construction) services; energy and cost effective indoor and/or outdoor lighting and electrical products (supplies, materials, fixtures, structures, equipment system components, etc.) related to the various manufactured indoor and outdoor athletic, recreational and public event facilities owned and operated by federal, state and local k-12 and higher educational institutions, governmental entities and non-for-profit organizations located in the various states service by the AEPA Members. Such facilities may include but are not limited to small gymnasiums to large arenas; small baseball fields to multi-baseball field complexes; small football fields to large track and football facilities; single tennis court to large tennis facilities; small and large multi-purpose recreational fields; small and large swimming pools and water parks, small and large parks and playgrounds; small and large event and convention centers; ancillary buildings, structures and associate walkways and parking lots. Work may include but is not limited to the following:
 - 5.3.1.1 Provide consulting, inspection, technical, professional design and engineering services to assess, evaluate and determine existing indoor and outdoor lighting systems' physical/structural, environmental, and operational conditions/components. Review and discuss with the owner the lighting system's current status; submit suggestions, recommendations and required products and services necessary to bring the lighting system into good working conditions. Ascertain owner's expectations and develop the project's scope of work,

- specifications, needs, requirements and timelines for the proposed project.
- 5.3.1.2 Services provided may include, but are not limited to.
 - 5.3.1.2.1 Conducting a detailed and extensive inspection/investigation of existing lighting components (electrical infrastructure and distribution system; pole foundation and structure, lighting fixtures and assemblies; lighting control system, etc.) physical environmental and operational conditions to identify conditions that need to be addressed in order to bring the lighting system back into good operating condition based on the manufacturer's specifications, industry standards and applicable federal, state and local codes as identified and referenced in Section 3: Glossary of Terms above.
 - 5.3.1.2.2 Consult with, advise and work in conjunction with the owner to review the findings, data and information obtained, collected, compiled, analyzed, summarized and reported during the lighting system's review and inspection/evaluation process based on the existing lighting system manufacturer's operating and performance specifications and guidelines (system's construction, configuration operational attributes, and characteristics). Review facilities past, current and future uses (type, kind and level of the athletic, recreational and/or public activities/events) hosted at the facility and their lighting uses and requirement etc.
 - 5.3.1.2.3 Jointly with the owner develop a proposed indoor/outdoor lighting project that will address the facilities' identified lighting system's deficiencies and allow the athletic, recreational and/or public facility to be operated, maintained and used efficiently, cost effectively, while meeting the owner's expectations. The proposed project ensure energy efficiency while provide adequate lighting to support and facilitate the activities and/or events being conducted within the facility and must be adequate for existing site conditions and environment. The maintenance, repair and/or renovation project's scope of work may include but is not limited to.
 - 5.3.1.2.3.1 Inspecting, assessing, evaluating, analyzing, summarizing, reporting findings and making recommendations for the maintenance, repair, replacement and renovation of an existing indoor/outdoor facility's lighting system.
 - 5.3.1.2.3.2 Spot Relamping Services.
 - 5.3.1.2.3.2.1 Clean glass lenses and inside of reflectors.
 - 5.3.1.2.3.2.2 Replace burned out lamps with new lamps of appropriate type, wattage and arc tube configuration. (Straight arc tubes vs. Phillips Z lamp arc tubes.)
 - 5.3.1.2.3.2.3 Inspect cross arms, exposed wiring and mounting hardware for possible problems. Make repairs, if possible, and notify Owner of potential future problems or maintenance needs.
 - 5.3.1.2.3.3 Group Relamping Services.
 - 5.3.1.2.3.3.1 Prior to group relamping, perform a light test and record existing lighting performance levels on the playing/activity/event area.
 - 5.3.1.2.3.3.2 Clean glass lenses on all fixtures. Replace missing lenses, if available.
 - 5.3.1.2.3.3.3 Clean the inside of all reflectors.
 - 5.3.1.2.3.3.4 Replace all lamps with new lamps of appropriate type, wattage and arc tube configuration. (Straight arc tubes vs. Phillips Z lamp arc tubes.)
 - 5.3.1.2.3.3.5 Inspect cross arms, exposed wiring and mounting hardware for possible problems. Make repairs, if possible, and notify owner of potential future problems or maintenance needs.
 - 5.3.1.2.3.3.6 Re-aim fixtures, as necessary, to ensure best possible uniformity of light across the field.
 - 5.3.1.2.3.3.7 Perform a post relamping light test and record new lighting performance levels on the playing/activity/event area. Submit a report summarizing the project, including: pre- and post-relamping light levels, including completed light test forms; Scope of Work completed; general observations regarding the system's

- design and general condition; recommendations for the future.
- 5.3.1.2.3.4 Relamping and re-aiming light fixtures.
 - 5.3.1.2.3.5 Upgrading, renovating, replacing and or rewiring the facility's electrical distribution system, lighting fixtures and control system.
 - 5.3.1.2.3.6 Maintenance, renovate and/or replace the lighting system's poles and foundations.
 - 5.3.1.2.4 If required and requested by the owner provide all labor, materials, equipment, drawings and professional design/engineering services as required by the project to properly design, develop, execute and complete the proposed indoor/outdoor lighting project's scope of work in accordance the existing lighting system's manufacturer's specifications, guidelines, industry standards, federal, state and local codes.
 - 5.3.1.2.5 Provide all, labor, supplies, materials and equipment required to perform and complete any warranty work required in accordance with this solicitation's requirements, manufacturer's instructions, specifications and industry standards on an as need basis.
 - 5.3.1.2.6 If requested provide all labor, materials and equipment required to perform ongoing maintenance and technical support services on the existing facility' lighting system. Scope of work may include, but is not limited to.
 - 5.3.1.2.3.1 The assessment and evaluation of lighting components to assess and evaluate the system's physical and operational condition, status and performance to determine if it is meeting and performing at stated expectations and performance specifications and standards.
 - 5.3.1.2.3.2 Perform preventative and repair services (Adjusting, reconfiguring, aiming, retrofits, repairing and replacing broken and non-functioning light system parts/component s.
 - 5.3.1.2.3.3 Provide technical support, training and assistance to owner's in-house staff that will allow them to properly operate, maintain, repair and service the lighting system to keep it in good operating condition while meeting the facility's ongoing needs and requirements and ensuring efficient and cost effective operation. (on-call services, maintenance and support agreements/ programs).
 - 5.3.1.3 Provide all indoor/outdoor electrical and lighting supplies, materials, equipment, structures, fixtures, hardware, assemblies and accessories needed, required and request by the owner. To maintenance, repair, renovate and/or replace existing facility's lighting infrastructure, distribution system, lighting fixtures and components with original/current system manufacturer's products to comply with the manufacturer's lighting system's operating and performance specifications, instructions and guidelines; industry standards; federal, state and local codes and requirements.
 - 5.3.2 Based on the developed agreed upon detailed indoor/outdoor lighting project's detailed scope of work, specifications, requirements, required products and services prepare and submit a project cost proposal that includes the following.
 - 5.3.2.2 Detailed scope of work identifying the lighting system's manufacturer operating and performance specifications/information/literature, industry standards, state and local building and electrical codes that will be utilized and adhered to.
 - 5.3.2.3 Electrical and lighting products and services to prepare for, manufacturer, obtain, deliver, store, install, configure and complete the project's detailed scope of work agreed to by the contractor and owner. Due to the unavailability of certain lighting products; new technologies/upgrades offered by lighting system manufacturer; new electrical and lighting code requirements and/or project time requirements it may be necessary for the contractor to offer/propose

alternatives/options for the owner to consider and approve. For each product and/or services offered provide associated line item, unit pricing utilizing one of the acceptable pricing methods stated herein (Project schedule of values).

- 5.3.2.4 Provide a listing of all subcontractors to be utilized with their contact information; the products and/or services they will be providing; total dollar amount of their contract; and their factory certification, license and registration information if applicable; project's payment and/or performance bond if required.
- 5.3.2.5 Any item, service, assistance, site-prep, product storage, facility access and/or information, etc. that the owner will need to coordinate, perform and/or provide before, during and after the proposed lighting project.
- 5.3.2.6 Project's timelines, mile-stones.
- 5.3.2.7 Manufacturer's, contractors and/or subcontractor's product and services warranties/guarantees the will be provided for the project.
- 5.3.2.8 If applicable project contract document between the owner and contractor to be executed.
- 5.3.3 As an indefinite-quantity solicitation and because there are twenty-three AEPA Members who are located throughout the US that have indicated their interest in potentially utilizing the resulting contract(s) based on this solicitation, and without knowing the type and kind of potential project's and their locations, as well as other factors and conditions that are unknown. AEPA is providing the following details, instructions, specifications and information as a basic specification, foundation and guideline for bidders to become aware of and understand the nature and scope of this indefinite-quantity solicitation; the type, level and quality of indoor and outdoor lighting products, systems, solutions and services being solicited. The following is not all inclusive and therefore bidders are asked to provide an extensive and complete product line to meet the needs and requirements of lighting projects covered by this solicitation's scope of work. In preparing for, developing, conducting and completing projects covered by Lot 2, the bidder and its lighting system manufacturer or manufacturer's representative must meet the following criteria.
 - 5.3.3.1 The contractor's project manager shall in conjunction with the owner's representative conduct a pre-inspection prior to any pre-construction, construction or close-out meeting where the owner is expected to take action, accept and/or sign-off on work that is proposed, in-progress and has been completed. This is to ensure that all work meets or exceeds the projects specifications and requirements. Any discrepancies shall be corrected and/or communicated to the owner.
 - 5.3.3.2 The contractor is familiar with and is a manufacturer/factory certified/approved to maintenance, repair, and services and provides supplies, materials, equipment, fixtures, etc. as an installer/distributor/supplier of the owner's facility existing lighting system.
 - 5.3.3.3 The lighting system manufacturer/supplier shall be willing, able and capable of acknowledging, endorsing and certify in writing to the facility owner that the contractor is qualified and possesses the knowledge, background, experience to assess, evaluate, maintenance, repair, service and support the manufacturer's/suppliers indoor/outdoor electrical and lighting products in which it the contractor is offering in response to this solicitation.
 - 5.3.3.4 The bidder and the lighting system manufacturer/supplier shall guarantee the usability of the lighting system products and/or services being proposed, offered and provided is equal or better than the original lighting system parts/equipment/components and meets or exceeds the system's stipulated/stated operational and performance specifications and standard.

- 5.3.3.5 The contractor as part of the project's contract documents/project close-out process shall issue along with its subcontractor(s) and the indoor/outdoor lighting system manufacturer(s)/supplier(s) a written warranty that clearly states and identifies the specific products and services covered; the terms, conditions, stipulations, requirements, restrictions, limitation and time limits; and the process and procedures of making a claim against the warrantee. The warrantee's coverage shall not be limited to the amount of usage. Any/all warranty terms, conditions, stipulations and/or requirements must be provided, discussed and accepted, in writing, by the owner prior to the issuing and execution of the project's contract documents and/or owner's purchase order.
- 5.3.3.6 Upon request provide all labor, materials and equipment and/or laboratory services required to conduct and perform testing, assessment and/or evaluation of both existing indoor/outdoor electrical and lighting system components (infrastructure, distribution, structures, fixtures, etc.) in accordance with and required by the manufacturer's instructions, industry standards, contract documents, federal, state and local codes. The contractor shall schedule the inspections/test in advance and provide the owner's representative in advance written information on who will be conducting the activity, how it will be conducted, clearly identifying the methods, procedures and protocols to be utilized, the applicable standards in which results will be analyzed, based on and compared to and when the results will be available.
- 5.3.3.6.1 Pre- and post- project testing.
- 5.3.3.6.1.1 Project light tests shall be submitted on forms that show the readings laid out on a grid. The grid shall vary depending on the type and level of athletic, recreational and/or activity/event area(s) involved. For the existing facility's lighting system the contractor shall utilize the original lighting system's specifications/test grids, analyze and compare test data/results with the stipulated, expected readings and performance specifications and industry standards.
- 5.3.3.6.1.2 All testing equipment shall be calibrated in accordance with industry standards and approved by the lighting system's manufacturer for testing its lighting system.
- 5.3.3.6.2 Existing lighting system site conditions, infrastructure, distribution system and lighting component inspection and investigation.
- 5.3.3.6.2.1 When responding to an owner's request to provide indoor/outdoor facility lighting system products and perform maintenance, repair and/or renovation services, the contractor must conduct a site visit and lighting system assessment to ascertain the type, kind and level of the existing lighting system that exist in order to develop and provide the facility's owner with a project proposal to meet their needs. The contractor's visit may include but is not limited to:
- 5.3.3.6.2.1.1 Inspection and Investigation of existing lighting system site conditions, infrastructure, distribution and system components – The ultimate success of providing the necessary and/or required lighting system maintenance, repair and renovation products and services depends on the contractor ascertaining existing lighting system's physical condition and operational performance based on the existing site and environment conditions; changes in the type and level of athletic, recreational and public activities and events hosted by the facility; changes in and new constructions of adjacent buildings, facilities and structures which may be impacting the existing lighting system's operation and/or performance. It is, therefore, necessary for the contractor, in cooperation with the owner, to ensure that a complete and accurate lighting system site and system inspection/investigation is completed.
- 5.3.3.6.2.1.2 The scope and level of any project site and lighting system inspection/investigation must be flexible and dependent on the nature of the conditions that exist at a particular site; the current lighting system's performance

and the willingness, available financial resources and the time available to address and correct the discovered and identified lighting system's structural, operational and performance deficiencies. During the development of the project, the contractor will advise and consult with the owner to determine the scope and level of site and lighting system inspection and that is required prior to project development with any associated costs to be incurred by the owner. Obviously, the more serious site conditions may require an adequate study, which would include, but not be limited to:

- 5.3.3.6.2.1.3 Adverse environmental site conditions.
- 5.3.3.6.2.1.4 Special usage of the facility for a variety of activities.
- 5.3.3.6.2.1.5 Adjoining facilities and their impact of the project site conditions and/or lighting system performance.
- 5.3.3.6.2.1.6 Lighting system pole foundation and soil conditions or building structures and support mechanism should be classified, in general, in accordance with the visual manual method of identification of soils, utilizing the Unified Soil Classification System (ASTM Methods D 2488 "Description of Soil Visual Manual Procedure", and D 2487 "Classification of Soils for Engineering Purposes"). It is not intended, however, that a rigorous use of these methods be required, but only use of terminology that will describe the soil conditions in terms of soil types using the Unified Soil Classification symbols, such as CL, CH, etc.
- 5.3.3.6.2.2 Data obtained from this investigation should be prepared and submitted as part of the project record documents for later reference, if necessary, or for review by a qualified engineer if an evaluation is decided upon by the owner and/or the Contractor.
- 5.3.3.6.2.3 Once a site study has been completed, identify risks and concerns requiring the owner and the contractor to make a joint decision as to the level of site preparation required before the project is started. This is done so that an adequate site can be available for the maintenance, repair and/or renovation of the lighting existing lighting system. In the event of any problems developing because of sub-grade conditions, the responsibility can be clearly allocated between the owner and the Contractor.
- 5.3.3.6.2.4 All information and communications relating to the site inspection and investigation shall become part of the project's documentation.
- 5.3.3.6.3 Project Submittals may include, but are not limited to.
- 5.3.3.6.3.1 Project Description – Provide a description of all site preparation, materials and supplies to be furnished, even if provided by others.
- 5.3.3.6.3.2 Detailed description of the lighting system components, their performance and operational specifications to allow the architect, owner's representative and/or AEPA Member to achieve an understanding of what is being proposed and how it will meet their project's needs and requirements.
- 5.3.3.6.3.3 If required detailed and stamped construction drawing by a licensed design and/or engineering professional licensed in the AEPA state where the project is to be performed.
- 5.3.3.6.3.4 Maintenance Instructions – Adjust existing maintenance instructions if applicable on how to inspect and maintain the existing lighting system's components and/or upgraded components on an ongoing basis.
- 5.3.3.6.3.5 Written warranty to the project owner upon completion.
- 5.3.3.6.4 Cost Proposal shall include but is not limited to a detailed breakdown of all costs associated with the inspection and investigation, design, manufacture, delivery, site preparation, maintenance, repair, renovation and warranty of the proposed lighting project based on the project's detailed scope of work. If required the, cost

for temporary utility services (electrical, etc) is part of/ utilized during the maintenance, repair and renovation process, such costs will be identified and agreed upon in writing by the owner and contractor. Utility services (electrical, water, etc.) utilized by the contractor to maintain a project office trailer, maintenance shop, storage facilities, security lighting, etc., will be the responsibility of the contractor and can only be transferred to the owner on written agreement specifically stating for what contractor's utilities it will be responsible. Copies of such agreements shall be part of the project contract documents and provided prior to any purchase order being issued.

5.3.3.7 Products used in the maintenance, repair and renovation of an existing lighting system shall be stored in accordance with the manufacturer's instruction, with seals and labels intact and legible. Any materials stored outdoors will be protected from weather (including rain, sleet, hail, wind, sun and snow) by being covered with impervious sheets, but with ventilation to avoid condensation.

5.3.3.8 By accepting the Owner's notice/order (executed contract document/purchase order) to proceed and executing the maintenance, repair and/or renovation process, the Contractor acknowledges that it has visited the site, is familiar with the current conditions under which the work is to be performed, and understands the scope of work as defined in the contract documents; the product specifications requested; and the manufacturer's specifications, industry standards, state and local codes in which the project's end result must comply with and adhere to.

5.3.4 Design Requirements.

5.3.4.1 Proposed indoor/outdoor lighting maintenance, repair and renovation products (supplies, materials, wiring, fixtures, equipment, pole structures, lighting system components) shall be designed, engineered and manufactured by a nationally-recognized manufacturer(s) by the national/international lighting industry and professional associations/organizations for specializing in the designing and providing indoor and/or outdoor lighting system products for all levels and types of educational and public athletic, recreational and other public facilities.

5.3.4.1.1 Manufacturer must have a minimum of ten (10) years of experience in the manufacture of indoor and/or outdoor lighting systems which meet and/or exceed the standards and guidelines established and adopted by - IESNA, ASBA and other related professional and industry organizations activity involved with the governing and overseeing of sporting, recreational and public events and facilities covered by this solicitation.

5.3.4.1.2 The manufacturer and/or contractor must have on staff, or have under contract and available, an engineer(s) or architect(s) registered; licensed to assess, evaluate existing lighting systems; and design lighting systems to be placed within the various AEPA states. They must have a minimum of five (5) years of actual indoor and/or outdoor lighting system/project design and engineering experience working with the existing lighting systems and proposed products being offered. They shall possess the background, knowledge and ability to review and certify that the proposed lighting products and services are appropriate and compatible with the project site, site conditions and existing lighting system components and if provided, installed and configured will meet or exceeds the design criteria of the project specifications, site conditions, industry standards, state and local building and electrical codes, exceed the minimum requirements of the system's design performance standards set by the existing lighting system's manufacturer in order for the end product to meet its projected lifecycle and functionality. AEPA understands and acknowledges that there are established codes and standards that require that these facilities have an architect's or engineer's seal/stamp on the plans, which is registered in the individual AEPA state and the contractor may not have an individual on staff that is licensed in all of the AEPA states, however through

the bidders noted past experience in the various AEPA states will indicate its ability and capacity to acquire the required professional services when needed.

5.3.4.2 Lighting system design

5.3.4.2.1 The contractor shall conduct the necessary research and investigation to obtain the existing owner's facility's original lighting system's manufacturer's specifications/information and develop a comprehensive knowledge and understanding of the lighting system's original installation and stated performance specifications for the specific facility it was design for and installed.

5.3.4.2.2 Obtain form the owner the necessary testing reports indicating the initial illuminance level calculated using the lumen output of the lamps, after the 100 hour burn in period as per the manufacturer's specification sheet, multiplied by the light loss factor (LLF) determined by the age for the system.

5.3.4.2.3 The current illuminance level shall be calculated using the appropriate ballast factor for the lamp/ballast combination in accordance with the manufacturer's specifications. Light levels shall never drop below defined "maintained footcandle level" specified based on the age of the system.

5.3.4.2.4 The illuminance level shall be calculated using the LLD value of 1.00.

5.3.4.2.5 The maintained illuminance level shall be calculated using the published lumen output of the lamp, at 70 percent of the rated lamp life as per the manufacturer's specification sheet. The maintained illuminance level shall also be calculated using the combined light loss factor (LLF) and stipulated by the manufacturer's product specifications.

5.3.4.2.6 The maintained illuminance level shall be calculated using the appropriate ballast factor for the lamp/ballast combination in accordance with the manufacturer's specification sheet.

5.3.4.2.7 The maintained illuminance level shall be calculated using a LTF value as per the manufacturer's specification sheet.

5.3.4.2.8 The maintained illuminance level shall be calculated using a LLD value of 0.9.

5.3.4.2.9 The maintained illuminance level shall be calculated using a LDD value of 0.95.

5.3.4.2.10 The existing system's internal and/or external hardware glare and spill control function shall be tested and verified against the original lighting system's specifications. The glare and spill shall be minimized from the lamp and the reflector when standing in front of the lighting assembly beyond the property line and when standing 90 degrees perpendicular to the lighting assembly beyond the property line.

5.3.4.3 Structural Strength: The luminaire assembly shall be checked and verified to ensure the meet the original lighting system/project's specifications and shall be capable of withstanding forces equal or greater than those stated for the location of the owner's facility location and/or state/local codes to wind speeds based on AASHTO structural design criteria.

5.3.4.4 System Description: The contractor shall conduct the necessary research to obtain the knowledge and understanding of the original lighting systems material's specifications, requirements and design. Depending on the existing install lighting system and its components, the items/areas to be address may include, but are not limited to the following. (examples given)

5.3.4.5 Materials.

5.3.4.5.1 Outdoor facilities light pole structures;

5.3.4.5.1.1 Pole foundations (pole mounting hardware, surface/subsurface conditions. Anchor bolts, etc.);

5.3.4.5.1.2 Poles (pole shaft, mounting brackets, fixtures, etc.)

5.3.4.5.1.3 Crossarms (structure, lighting fixtures, assemblies, reflectors, wiring etc.)

5.3.4.5.1.4 Luminaires (equipment, mounting hardware, electrical component housing and

- optical assembly, lamp socket, ballast, lens, etc.)
- 5.3.4.5.1.5 The original lighting manufacturer's computer aiming photometric design schematic.
- 5.3.4.5.2 Original Lighting system's control system type, configuration and operation specifications. (electrical components, wire/wireless hardware, sensors, remote lighting control and monitoring hardware and software, etc.). If available access and review Manufacturer's server/web-based database to ascertain lighting system usage.
- 5.3.4.6 Electrical and lighting system product lines offered (supplies, materials, equipment, structures, wiring, fixtures, assemblies, software, accessories, etc.) to maintenance, repair and/or renovate the owner's existing facility's lighting system must:
- 5.3.4.6.1 Be from the original lighting system's component manufacturer and be constructed of materials equal to or better than the original component.
- 5.3.4.6.2 Contain the same or enhanced physical, structural, operational, performance attributes and characteristics of the original lighting components.
- 5.3.4.6.3 Allow the existing owner's facility to function and be utilized by the existing athletic, recreational and/or public activities/events and any additional activities/events anticipated during the lifecycle of the existing lighting system.
- 5.3.4.6.4 AEPA and its owners understand the product manufacturers come and go, product lines (lighting systems) are discontinued and/or due to the existing system components over time being maintained, repaired or renovated by different providers. The contractor may need to acquire lighting system parts/components from alternative sources other than the parts/ components original manufacturer. If so, such parts/components shall be of same material, structure, physical, functional and operational attributes and characteristics and be compatible and suitable for the existing lighting system which will allow it to perform as designed and intended.
- 5.3.4.7 Performance:
- 5.3.4.7.1 The contractor shall obtain, review and develop knowledge and understanding of existing lighting system's performance specifications and requirements when it was designed and installed based on the type, kind and level of athletic, recreational and public activity/event areas established within the facility at the time. From the owner ascertain if the type, kinds and levels of activities/events are the same and if there are any future planned changes. The contractor will perform the necessary research, inspections/investigations/testing to ascertain the existing system's current performance conditions and operational status. Based on its finding shall insure that the products and services offered and provided brings the existing lighting system into good performance and operational conditions by addressing the following.
- 5.3.4.7.2 Illuminance level for each primary activity/event area;
- 5.3.4.7.3 The maximum-to-minimum uniformity ratio for all lighting on the primary activity/event areas;
- 5.3.4.7.4 The coefficient of variance for the primary event/activity areas;
- 5.3.4.7.5 The uniformity gradient of the primary activity/event area;
- 5.3.4.7.6 Light level must meet or exceed those standards established and published by IESNA RP-6-01, which identifies minimum and maximum requirements for horizontal foot-candles maintained, light uniformity, grid size, and grid points for the various types of activities/event areas and surfaces.
- 5.3.4.7.7 The pre- and post-project light tests shall be submitted on forms that show the readings laid out in a grid. The grid shall vary depending on the type and level of athletic, recreational and/or public activities/events held at the facility.

- 5.3.4.7.8 The illumination trespass on neighboring properties/areas from stadium/event area lighting shall be in accordance and comply with local zoning codes of the facilities location.
- 5.3.4.7.9 If available existing drawing shall be verified and updated and if not available new shop drawings shall be created clearly identifying the lighting system layout and indicating the number of poles and their locations. Indicate the number, kind, wattage and position of each fixture located on each individual light pole.
- 5.3.4.8 Workmanship – All work/services performed shall be of the highest quality and meet or exceed industry and professional standards and practices established by the various electrical and lighting trade associations/organizations, while comply with all federal, state and local trade/licensing codes and regulations and product manufacturer’s instructions. Work/services areas that need to be addressed may include but are not limited to.
- 5.3.4.8.1 Consulting, testing, architectural and engineering;
- 5.3.4.8.2 Excavation/trenching;
- 5.3.4.8.3 Erection; and
- 5.3.4.8.4 Electrical supply and wiring.
- 5.3.4.9 Warranty.**
- 5.3.4.9.1 The manufacturer’s warranty shall guarantees the usability of the lighting system for its intended use for a stipulated period commencing on the date of acceptance of the owner. The warranty coverage shall not be prorated nor limited to the amount of usage. The warranty submitted must have the following characteristics:
- 5.3.4.9.1.1 Must be a warranty from a single source covering workmanship, all self-manufactured/produced or procured materials.
- 5.3.4.9.1.2 Depending on the size, complexity and/or the amount (total cost of products and services provided), the owner may require that the warranty offered for the individual project be secured by an insurance/bonding company nationally recognized and licensed to do business in the individual AEPA state or have in place a funded financial reserve (fund) to assure fulfillment of the warranty for the its full term.
- 5.3.4.9.1.3 Must comply with governing federal, state and/or local laws and provide full coverage for the stipulated period from the date of warranty activation.
- 5.3.4.9.1.4 Must warrant the electrical and lighting supplies, materials, equipment, structures, fixtures, assemblies, components etc. and workmanship.
- 5.3.4.9.1.5 Must warrant that the electrical and lighting products provided and installed meet or exceed the existing lighting system’s manufacturer product specifications, industry standards and federal, state and local codes. If applicable guarantees the availability of replacement materials, parts and components for the full warranty period.
- 5.3.4.9.2 Structure warrantee: for any existing lighting system structure component additions, modifications, deletions and/or repair. The warranty must.
- 5.3.4.9.2.1 Must cover the repair or replace of any structural component that proves not to meet or exceed the existing lighting system’s manufacturer’s specifications;
- 5.3.4.9.2.2 Repair and/or replace an part/component that is defective or is not performing up to stipulated expectations for the stated warrantee period; and
- 5.3.4.9.2.3 Must clearly state and identify all warrantee terms, conditions, stipulations, limitations, restriction, obligations and requirements placed on the for the facility owner for the warrantee to remain in place.
- 5.3.4.10 Maintenance.**
- 5.3.4.10.1 If due to the contractor’s work on the existing facility’s lighting system the way or manner in which the system is to be maintain needs to be modified and/or is different from the original maintenance plan/instructions provided to the owner.

The contractor shall supply the owner with such a complete set of written maintenance and instruction changes for proper use and care of the athletic, recreational and/or public facility's indoor/outdoor lighting systems and/or products provided/installed with any specific operational and/or use restrictions/limitations.

- 5.3.4.10.2 As an option, the Contractor may provide services to the owner, at an additional cost, to perform regular and ongoing maintenance-related products and services.
- 5.3.4.11 System Performance Characteristics.
- 5.3.4.11.1 All products (fixtures, ballasts, poles, wires, bulbs, cross members, etc.) are to meet or exceed the original manufacturer's system performance specifications and the current standards/requirements stipulated by the following UL, CSA, NEMA, NEC and local codes.
- 5.3.4.11.2 If applicable, required and the products/services provided impacts, changes and/or effects the existing lighting performance, the lighting system is to be tested. When assessing and evaluating the system after completing the project, the existing lighting system manufacturer's instructions for testing, performance specifications, industry standards, federal, state and/or local codes are to be utilized. The contractor shall schedule the inspections/test in advance and provide the owner's representative in advance written information on who will be conducting the activity, how it will be conducted, clearly identifying the methods, procedures and protocols to be utilized, the applicable standards in which results will be analyzed, based on and compared to and when the results will be available.
- 5.3.4.12 Project Close-Out System Performance Characteristics.
- 5.3.4.12.1 The Contractor and the Owner's representative shall conduct a complete and extensive site inspection of all work performed and if applicable perform appropriate tests and note the results of the impact, and effect on the existing facility's lighting system's operation and/or performance due to the products and services provided.
- 5.3.4.12.2 If applicable and/or requested by owner, the Contractor shall provide the owner's personnel with the training necessary for them to develop a complete knowledge and understanding of the supplies, materials and equipment required to maintain and keep the existing lighting system in good working condition through its stated lifecycle.
- 5.3.4.12.3 If applicable and based on the owners individual project requirements, provide at least two (2) copies of the project record documents that may include, but is not limited to:
- 5.3.4.12.4 As-built drawings showing the actual locations of all electrical supply lines, control equipment, lighting pole (foundations, structure, dominations), lighting system mounting (structure, fixture, dominations and configuration) of the installed/provided system.
- 5.3.4.12.5 Any installed equipment manufacturer's product specifications (materials, operating, and performance), instruction, maintenance and training manuals, bill of materials, warranties and other project related information and materials.
- 5.3.4.12.6 Any state, local and/or manufacturer's inspection/testing reports or certificates certifying that all state, local and manufacturer's specifications, standards, codes and requirements have been met.
- 5.3.4.12.7 Warranty Documents may include but are not limited to.
- 5.3.4.12.7.1 Manufacturer's warranty with all of the forms completed and submitted in owner's name and registered with the manufacturer. If applicable within this documentation, the lighting system manufacturer must verify that its factory representative has inspected the installation of the completed project and that all work conforms to the manufacturer's specifications and requirements.

- 5.3.4.12.7.2 The Prime Contractor shall provide a written warranty to the owner that covers defects in the prep-work, installation, and workmanship, and further warrants that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's representative.
- 5.3.4.12.7.3 All project and close-out documents shall be provided to the owner on CD-R or DVD-R in one of the following formats ("AutoCad", MS Word, Excel, PowerPoint, Access, Project, Adobe Acrobat, etc.).
- 5.3.4.12.8 Date of final inspection shall be scheduled in advance, with appropriate notice and agreed upon by all parties. The contractor shall provide the owner or its designee, with copies of the printed check-off list, proposed pay application, state and local inspector's sign-off/reports acquired since the last meeting. Any discrepancies will be noted as a punch list item and corrected prior to the next meeting or within the time specify in the contract documents.
- 5.3.5 If required the, cost for temporary utility services (electrical, etc.) is part of/utilized during the construction process, such costs will be identified and agreed upon in writing by the owner and contractor. Utility services (electrical, water, etc.) utilized by the contractor to maintain a project office trailer, maintenance shop, storage facilities, security lighting, etc., will be the responsibility of the contractor and can only be transferred to the owner on written agreement specifically stating for what contractor's utilities it will be responsible. Copies of such agreements shall be part of the project contract documents and provided prior to any purchase order being issued.
- 5.3.6 Products used in the construction will be stored in accordance with the manufacturer's instruction, with seals and labels intact and legible. Any materials stored outdoors will be protected from weather (including rain, sleet, hail, wind, sun and snow) by being covered with impervious sheets, but with ventilation to avoid condensation.
- 5.3.7 By accepting the Member's notice/order to proceed and executing the construction process, the Contractor acknowledges that it has visited the site, is familiar with the current conditions under which the work is to be performed, and understands the scope of work as defined in the contract documents and the product specifications requested.
- 5.3.8 Final payment shall only be made after the close-out process and the contractor has address and completed all punch-list items and has accepted the project as being completed.
- 5.3.9 Pricing methods and procedures
- 5.3.9.1 AEPA has established three (3) pricing methodologies that may be utilized, depending on the individual project's scope of work, to establish the project's total cost to be paid by the Member/Participating Entity. It is understood that the contractor will be required to perform whatever investigation is necessary and to request whatever information (scope of work, drawings, specifications, outcomes, etc.) necessary to develop a comprehensive and clear understanding of the types, kinds, and levels of construction products and services required to complete the proposed lighting system maintenance, repair and renovation project. Therefore, the contractor shall carefully examine and work through the following pricing methodologies with their terms, conditions, stipulations, calculations and requirements prior to preparing their cost proposal in response to Lot 2 of this solicitation.
- 5.3.9.1.1 **R.S. Means Pricing Methodology:** As indicated herein, the R.S. Means Company publishes a CD Rom and hard copy books with a number of individual sections that covers construction products and services that relate to the various types, kinds and levels of construction products and services required by an individual project's scope of work, terms, conditions, specifications and requirements that may

- be requested under this Lot.
- 5.3.9.1.1.1 The Offeror responding to this Lot will acquire the current version of the R.S. Means CD/Software or copies of the bound books that are required in order to prepare a cost proposal covered by this Lot.
- 5.3.9.1.1.2 The R.S. Means pricing method is one of the methods used for pricing projects covered by this Lot, unless it does not clearly and accurately reflect the line-item costs of the project. In those cases, the project may require the use other pricing methods or multiple pricing methodologies as defined herein.
- 5.3.9.1.1.3 When utilizing the R.S. Means pricing methodology, there are options/configurations that can be established that will govern how individual construction cost items within the R.S. Means software/cost books can effect and modify the individual item's costs as a global setting and will determine the actual item's cost that appears on the project's price quote/cost proposal. Any/all such options/settings/configurations must be disclosed and noted within the Offeror's cost submittal response.
- 5.3.9.1.1.4 Within the individual item's cost shown in the R.S. Means' cost-listing, it indicates the materials, equipment, labor, overhead and profit that will be charged the Owner for the construction item.
- 5.3.9.1.1.5 Costs relating to non-construction items/assemblies (General Condition items) such as contract management/supervision, proposal preparation, paperwork preparation; season of the year; home office costs; insurance; project management and supervision; office and storage trailers; pickup trucks, mileage, per diem, transportation/delivery; safety equipment; weather conditions; etc., must be included as part of the contractor's factor/multiplier to be applied to the R.S. Means cost proposal total to achieve the subtotal for the R.S. Means portion of the project's costs. These general condition items will not be included as part of the Contractor's R.S. Means construction cost proposal.
- 5.3.9.1.1.6 AEPA understands that there may be project(s) performed under this Lot that, due to unusual, extraordinary and/or special circumstances, conditions, situations and/or project needs, may require these general condition items be utilized. If so, a separate R.S. Means cost proposal listing these items must be submitted with justification and other backup documentation to the project owner for its review and approval prior to their being included as part of a total project's cost proposal.
- 5.3.9.1.1.7 The owner reserves the right to approve or disapprove such request and, if the vendor feels the owner's decision is in error, the contractor may request third-party review. The findings of the third party's review will determine whether the Contractor or owner pays for the review. Items that may fall within this area may include, but are not limited to:
- 5.3.9.1.1.7.1 Architectural and engineering services, if required.
- 5.3.9.1.1.7.2 Pre-construction site investigation to ascertain and discover conditions that may effect, impact and/or change the project's detailed scope of work. It is understood that unforeseen conditions and/or circumstances may arise and/or be encountered during the construction process that may need to be addressed in a change order.
- 5.3.9.1.1.7.3 Special requests made by the Owner that are outside the normal and customary process.
- 5.3.9.1.1.8 R.S. Means cost quotes/proposal will be governed by the following:
- 5.3.9.1.1.8.1 All cost items/assembly required by a project to clearly provide and accurately represent and describe the construction products and/or services required to complete the project's detailed scope of work provided must be listed.
- 5.3.9.1.1.8.2 The contractor must, for each individual cost item/assembly shown on their cost proposal, indicate and document any of the R.S. Means special factors that are applicable, including factors affecting cost, quality of materials, productivity of labor force, size of project, physical location/height of where the item is being

- stored/utilized, constructed/installed, etc.
- 5.3.9.1.1.8.3 Since the most recent edition of R.S. Means is utilized and a new edition comes out January 1st of each year, adjustments and updates to reflect current material costs, equipment costs, labor rates, market conditions, etc., are included in the new edition and will limit the need for item prices to be adjusted. It should be noted that within an individual trade/industry and due to economic/market conditions, material shortage, etc., out of the control of AEPA or the Contractor, an adjustment may be required. If a price anomaly/increase should occur during the year that is felt across the trade/industry, the Contractor may request AEPA' approval for an adjustment.
- 5.3.9.1.1.8.4 The quantity of the item (unit measure) indicated must accurately represent the amount to be utilized. If the Contractor feels that it is necessary to either increase or decrease the quantity to arrive at an extended price, the item selected does not clearly identify and/or represent construction products/tasks/processes needed by the project. If this situation should arise, the Contractor must utilize one of the other pricing methodologies allowed under this solicitation.
- 5.3.9.1.1.8.5 A subtotal of all of the items selected will be presented, and the Contractor's factor/multiplier awarded for the AEPA Member state will be applied to arrive at the R.S. Means project cost.
- 5.3.9.1.1.9 Contractor's R.S. Means factor/multiplier.
- 5.3.9.1.1.9.1 As part of the Offeror's response to this Lot, it will propose a factor/multiplier that will be applied to the R.S. Means' construction cost proposal to reflect the additional contractor's costs to prepare for, mobilize, take possession of, secure and take control of the project site, and manage, supervise and complete all activities required by the project and the individual AEPA Member's administrative fee (Percentage) identified within this solicitation.
- 5.3.9.1.1.9.2 The bidder's Factor/Multiplier must include all non-construction (General Conditions) items such as contract management/supervision, proposal preparation, paperwork preparation; season of the year; home office costs; insurances; project management, supervision, construction management; office and storage trailers; pickup trucks, tools and tool boxes, mileage, per diem, transportation/delivery; safety equipment; weather conditions; etc., and the AEPA Member's administrative fee.
- 5.3.9.1.1.9.3 Since all mobilizations, transportation and travel costs for both its and its subcontractor's employees/staff are to be included in the bidder's factor/multiplier and because the bidder is proposing to service multiple AEPA States, than the state in which bidder is located and intends to utilize subcontractor's that may not be located within the AEPA state and/or local communities where the project is located, the bidder must take into consideration all of these variables and appropriately allow for them in its factor/multiplier for each AEPA state it will be servicing.
- 5.3.9.1.1.10 The bidder will propose a factor/multiplier for each of the AEPA states covered by this solicitation. This factor/multiplier will be expressed as a whole number plus three (3) decimals places. For example, if the bidder proposes (0.925) and the project's construction quote/cost proposal subtotal is Ten Thousand Dollars (\$10,000), then the calculation would be \$10,000 multiplied by 0.925 equals \$9,250, total construction cost. If the bidder proposes (1.125) and the project's construction quote/cost proposal subtotal is Ten Thousand Dollars (\$10,000), then the calculation would be \$10,000 multiplied by 1.125 equals \$11,250, total construction cost.
- 5.3.9.1.1.11 The bidder will propose the following multipliers/factors for each AEPA Member covered by this solicitation.
- 5.3.9.1.1.11.1 Normal Working Hours (Defined as 7:00 a.m. to 5:00 p.m. Monday-Friday)

- (project located on tribal lands or in remote locations).
- 5.3.9.1.1.11.2 One for work in normal hours when the total project cost (job order) is in excess of the individual AEPA state's, requiring state wage rates.
- 5.3.9.1.1.11.3 One for work in normal hours when the total project cost (job order) is less than the individual AEPA state's wage rates and does not require state wage rates.
- 5.3.9.1.1.11.4 Other Than Normal Working Hours (Defined as all hours not defined as normal hours above), (project located on tribal lands or in remote locations).
- 5.3.9.1.1.11.5 One for work in other than normal working hours when the total project cost (job order) is in excess of the individual AEPA state's, requiring state wage rates.
- 5.3.9.1.1.11.6 One for work in other than normal working hours when the total project cost (job order) is less than the individual AEPA state's wage rates and does not require state wage rates.
- 5.3.9.1.1.11.7 One for work performed during normal hours when the total project cost (job order) is in excess of \$2,000, requiring federal wage rates.
- 5.3.9.1.1.11.8 One for work performed during normal hours when the total project cost (job order) is less than \$2,000 and does not require federal wage rates.
- 5.3.9.1.1.11.9 One for work performed outside of normal hours when the total project cost (job order) is in excess of \$2,000, requiring federal wage rates.
- 5.3.9.1.1.11.10 One for work performed outside of normal hours when the total project cost (job order) is less than \$2,000 and does not require federal wage rates.
- 5.3.9.1.1.12 The Offeror's awarded factor/multiplier will be adjusted on the bidder's AEPA contract anniversary date by applying the escalation/de-escalation as measured by the Construction Cost Index (CCI) published in the ENR (formerly known as Engineering News and Record).
- 5.3.9.1.1.13 Cost of permits, performance and payment bond costs, tribal taxes and individual AEPA state's Gross Receipt Taxes are shown as separate line items on the cost proposal.
- 5.3.9.1.2 **Published/Retail Price Lists:** For products and services not covered by R.S. Means, the bidder may prepare and submit suppliers', distributors', and/or manufacturers' published/retail price lists as another pricing methodology. The line-item cost of these items will be determined and calculated by taking the published/retail price list and applying an AEPA discount to obtain the price paid by the AEPA Member and/or its Member agency.
- 5.3.9.1.2.1 The published price list may include, but is not limited to:
- 5.3.9.1.2.1.1 Product and material costs;
- 5.3.9.1.2.1.2 Equipment costs;
- 5.3.9.1.2.1.3 Labor, tradesmen and operator costs;
- 5.3.9.1.2.1.4 Testing and analysis costs; and
- 5.3.9.1.2.1.5 Transportation and freight costs when only products and materials are provided.
- 5.3.9.1.3 **Alternative Pricing Methodology:** If there are R.S. Means cost items/assemblies and/or published/retail price lists that cannot accurately identify or describe the individual construction products and/or services required by the project's detailed scope of work, the cost of these items/assemblies will be calculated by utilizing the alternative pricing methodology. Bidders should take note and understand that the various AEPA Member States Procurement Codes that govern alternative pricing methods clearly identify and stipulate the process, requirements, limitations and restrictions. The following is a general overview of the process and individual state's procurement codes will apply and be adhered to.
- 5.3.9.1.3.1 The costs of these items/assemblies (construction products and services) will be obtained by the Contractor requesting, receiving and evaluating three (3) written quotes/bids specifying the terms, conditions, specifications and requirements from the available qualified and experienced suppliers, distributors, and service

providers/subcontractors. The contractor will rank and submit to the project's Owner the quotes received from the providers that best meet the item/assembly specifications and requirements and are most cost effective. The quotes must be submitted and approved by the Owner prior to being made part of any project's cost proposal.

5.3.9.1.3.2 Once the quote/bid to be utilized in the project's quote/cost proposal is approved, the contractor will take the total on the quote and apply the percentage awarded to establish the normal and customary standard/retail price. For example, the total cost of the quote/cost proposal is Ten Thousand Dollars (\$10,000) and the Contractor's awarded percentage is eighteen percent (18%), the standard/retail price would be determined by taking \$10,000 multiplied by 1.18 equals \$11,800. In developing this percentage, the Offeror must take into account any non- construction general conditions and include them as part of its percentage.

5.3.9.1.3.3 The AEPA price would be calculated by taking the alternative standard/retail price of \$11,800 and multiplying it by the Contractor's discount percentage awarded as the AEPA discount off the alternative standard/retail price of five percent (5%). \$11,800 (the standard/retail pricing) multiplied by .05 equals \$590 (AEPA discount), and by taking \$11,800 (the standard/retail pricing) and subtracting \$590 (the AEPA discount), \$11,210 would be the final cost and be made a part of the project's quote/cost proposal.

5.3.9.1.3.4 The bidder, as part of its cost submittal, will propose a percentage that includes the bidder's overhead, markup and profit.

5.3.9.1.3.5 The bidder, as part of its cost submittal, will propose a percentage that reflects the amount of discount offered to AEPA Member and its Members Agencies to establish the AEPA price.

5.3.9.2 The Contractor must provide the project owner with all of the quotes and documents associated with its final project quote/cost proposal for any of the pricing methodologies defined herein are utilized to prepare a project's cost proposal so that all aspects of the contractor's cost proposal (cost development, considerations and associated documentation is available to AEPA Members, its Member Agencies, internal/external auditors and for public review to verify and audit.

5.3.9.3 AEPA understands that are various natural resources copper and petroleum-based products and concrete costs occasionally are influenced by international, national and/or local conditions or governmental actions through the contract term. If material costs covered by this Lot should substantially increase or decrease beyond the prices established at the time of solicitation due date due to conditions beyond the control of the contractor, a temporary price increase/decrease may be approved by AEPA, upon written request, prior to the development and submittal of a cost quote/proposal to an AEPA Member and/or its Member Agency for their consideration and approval on an individual project. Upon receipt of such a request, AEPA will verify and issue a written determination accepting or rejecting the contractor's request.

5.3.10 Substantiating Documentation

5.3.10.1 Required Written Responses: Please Note: AEPA reserves the right to deem a bidder's response non-responsive if bidder fails to address the following items by provides the necessary information and/or documentation requested below. The bidder must:

5.3.10.2 Respond to and provide all of the necessary documentation requested within Form F Contractor's Qualifications.

5.3.10.3 Through written narrative, clearly identify the type, kind, level of indoor and outdoor lighting products/systems/solutions and services it is proposing to provide AEPA Members under this IFB. The response shall include:

- 5.3.10.3.1 The manufacturer's name(s).
- 5.3.10.3.2 The various indoor/outdoor lighting products/systems/solutions offered from each. For bundled lighting systems/solutions include the major component manufacturers/supplier's names and contact information.
- 5.3.10.3.3 Information on the lighting products/systems/solutions being proposed
- 5.3.10.3.4 Samples of photometric design layouts for each scene level showing point by point "initial" footcandle levels for each of the fields listed in item 5.2.2.9.3.2.1 above.
- 5.3.10.3.5 Letter on lighting product's/system's/solution's manufacturer's letterhead stating the energy consumption during its lifecycle and guaranteeing the energy consumption will not increase over time.
- 5.3.10.3.6 Letter on lighting products'/systems'/solutions' manufacturer's letterhead stating and guaranteeing its lighting products/systems/solutions designs meet ALL recommendations of The Illumination Engineering Society of North America RP6-01.
- 5.3.10.3.7 Provide and/or allow access by internet to complete technical specifications, data sheets and information on all proposed indoor/outdoor lighting technologies (products/ systems/solutions) being offered. Product data shall include, but is not limited to.
 - 5.3.10.3.7.1 Photometric designs(including scene lighting);
 - 5.3.10.3.7.2 System/solution control ;
 - 5.3.10.3.7.3 Luminaires;
 - 5.3.10.3.7.4 Lamps;
 - 5.3.10.3.7.5 Ballasts;
 - 5.3.10.3.7.6 Pole assembles ; and
 - 5.3.10.3.7.7 Engineered foundation
- 5.3.10.3.8 On Form F2 note any product/system/solution exceptions, deviations and/or discrepancies taken relating to industry standards, federal, state and/or local electrical codes.
- 5.3.10.3.9 Certified copies of independent (third-party) laboratory testing and analysis reports stating the products/systems/solutions meets, exceeds and/or complies with the industry standards identified herein.
- 5.3.10.3.10 Provide or make available through internet access product/system/solution specification/data sheets and related product information.
- 5.3.10.3.11 Completed information on any subcontractor that will be utilized to provide, install and/or perform services proposed in response to this solicitation.
- 5.3.10.3.12 Samples of the lighting product manufacturer warranty to be provided to the owner covering defects in materials, workmanship, performance failure, and any other feature which is not deemed ordinary wear and tear of the lighting product/system/solution of the type provided for the stated lifecycle from the date of Substantial Completion. The method/protocols utilized by the lighting manufacturer to verify that their onsite representative has inspected the installation and that the work conforms to the manufacturer's specifications and requirements for the warranty to be issued.
- 5.3.10.3.13 Provide documentation demonstrating the lighting product manufacturer's/contractor's warranties are supported by an insurance policy, performance bond or other security.
- 5.3.10.3.14 Provide a sample of the subcontractor's warranty to be provided to the AEPA contractor covering defects in the work performed, installation workmanship, and further warrant that the installation was done in accordance with both the manufacturer's recommendations and any written directives of the manufacturer's

- designated representative.
- 5.3.10.4 Demonstrate its ability and capacity to provide and perform the required professional, construction and/or related services for the lighting products offered in response to this solicitation by providing one (1) project with a total project cost of twenty-five to one hundred thousand dollars (\$25,000 - \$100,000); one (1) project with a total project cost of one hundred and one thousand to five hundred thousand dollars (\$101,000 - \$500,000); and one (1) project with a total project cost that exceed five hundred dollars thousand or more (\$500,000 or more) in each of the twenty-three (23) AEPA Member states who are listed in section 3: Anticipated AEPA Member Agency as interest in participating by providing prior experience of completed jobs. The documentation shall include:
- 5.3.10.4.1 The general scope of work for each project and the type of lighting products/system/solution installed.
- 5.3.10.4.2 The manufacturer's product used for each project listed.
- 5.3.10.4.3 The total cost of each project.
- 5.3.10.4.4 The institution's name, address, phone number, contact person's name and title for each project.
- 5.3.10.4.5 Provide the time line (start and end date) for each project listed and provide a brief narrative of the pre-sale and follow-up consulting services offered to ensure institution's satisfaction.
- 5.3.10.4.6 Provide a brief narrative of the types of warrantee work that you had to go back and perform on the installed products since the project was completed and signed off on. Please include the following:
- 5.3.10.4.6.1 Through your evaluation of the problem, what did you find as the cause of the problem?
- 5.3.10.4.6.2 What products and/or services did you have to provide to resolve the problem?
- 5.3.10.4.6.3 Was the customer satisfied with your solution and would they be willing to give you a letter of reference if requested to?
- 5.3.10.4.6.4 Name of institutions, contact person and phone number.
- 5.3.10.5 Provide a narrative of your company's policies, procedures and strategies to ensure quality control, response to concerns before, during and after the project. Indicate what follow-up, review and oversight process your management team has in place to ensure owner satisfaction.
- 5.3.11 Cost Considerations
- 5.3.11.1 The bidder must provide a complete pricing information, terms and conditions associated with the indoor/outdoor facility lighting system maintenance, repair, and renovation products and services that it is proposing to offer under this solicitation. All pricing must be determined by one of the three (3) pricing methods defined herein.
- 5.3.11.2 The bidder shall conduct the necessary research required to prepare, submit and/or provide internet access to the proposed athletic, recreational and public facility lighting products it is proposing in responding to this solicitation.
- 5.3.11.2.1 Product price sheets, catalogs and/or website shall include product number, product description, unit of measure of product available, the item's price and what that price includes (delivery, installation, etc.).
- 5.3.11.2.2 The bidder will indicate the amount of discount to be applied to each item to arrive at the individual AEPA state agency's price. Within the terms of this IFB, different manufacturers/products can have different discounts as long as the discounts are clearly stated within the bidder's response.
- 5.3.11.2.3 AEPA understands the basic cost of the product/services listed on a published price list indicates the cost of obtaining, manufacturing, and preparing the product/services to ship to the project site. It is also understood that the cost

incurred by the bidder to deliver, store, and install the product/service to an individual project site will differ depending on the AEPA state that the project site is located and the distance from the bidder's the distribution point. Therefore, for each of the AEPA states list herein, provide your multiplier/factor to be applied the base AEPA price shown on the published price list to arrive at the individual AEPA state price.

- 5.3.11.3 The bidder shall review and conduct the necessary research of the R.S. Means pricing system and its various applicable factors, as they relate to pricing of construction items for each AEPA state. Prepare and submit the various R.S. Means bid factor/multiplier as requested and identified herein.
- 5.3.11.4 The bidder shall consider all of the circumstances/situations along with the products and services it offers that are not identified within and/or covered by either its published price list or R.S. Means and will need to be obtained and priced by the alternative costing method identified herein. The bidder shall prepare and submit its multiplier/factor to be utilized to obtain the normal/customary retail price and its AEPA discount to be applied to obtain the AEPA price.
- 5.3.11.5 If products or services are required as part of the performance under this solicitation and can only be obtained and/or manufactured from a single source and are acquired under the sole source provisions of the AEPA states' procurement code. The bidders multipliers/factors bid for the Alternative pricing method will be utilized to obtain the AEPA price.
- 5.3.12 Bidder Qualification Evaluation Criteria for Lot 1.
- 5.3.12.1 Bidder who do not currently possess the necessary qualifications, trained and experienced personnel, financial capacity, and meet the other requirements stated herein will be disqualified and their response considered non-responsive.
- 5.3.12.2 Bidder shall have been in business at least 10 consecutive years under the same name and shall have performed a minimum of sixty-three (63) athletic, recreational and public facility lighting projects. The bidder must specialized in commercial lighting systems at its primary business and be focused in providing the various indoor and outdoor lighting technologies covered by this solicitation.
- 5.3.12.3 The bidder's past experienced and proven track record in providing, installing, servicing and supporting the lighting products/systems/solutions proposed in response to this solicitation nationwide (indicated AEPA states) as specified herein.
- 5.3.12.4 Bidder demonstrated its ability, capacity, available resources to meet the athletic, recreational and public facility lighting requirements state herein by communicating.
- 5.3.12.4.1 Bidder holds current and has maintained in good standings the necessary manufacturer's, industry, federal, state and/or local certifications, licenses, registrations, insurance and/or bonding required to design, engineer, manufacturer, deliver, install, service and support the indoor/outdoor athletic, recreational and public facilities lighting products/systems/ solutions offered in response to this solicitation to the indicated AEPA Member states.
- 5.3.12.4.2 The quality, level, background and experience of its in-house and/or contracted personnel/subcontractors (professional design, engineering, consulting, sales, project management, installers, inspectors and support personnel to meet the solicitation's requirements.
- 5.3.12.4.3 Maintains and/or has access to an adequate inventory of indoor/outdoor lighting and electrical supplies, materials, equipment, structures, fixtures, etc., to manufacturer, provide, install, configure, service and support the products/systems/solutions offered in response to this solicitation and complies with its requirements.
- 5.3.12.5 The Owner reserves the right to reject any bid if the evidence submitted by, or

investigation of, such bidder fails to satisfy the Owner that the bidder can properly qualify to carry out the obligation of any part of the products and services it has proposed in response to this solicitation and/or meet the minimum solicitation requirements.

5.3.13 Cost evaluation will be based on a point system with points being awarded for being a low to high bidder for each cost evaluation item, that is, contractor, discount off R.S. Means, overhead and profit percentage markup, mileage charge, per diem rate, travel time, etc. If a bidder leaves out an item that is required, AEPA will allot zero (0) points to that item, and if awarded a contract, cannot be used in providing products or services. The low bidder will receive the full point value and all other bidders will receive points calculated as follows:

$(\text{Lowest Bid} / \text{Other Bid}) \times \text{point value}$

5.3.13.1 Cost Evaluation Information (Form G): The following factors will be used to evaluate and award this solicitation. Please note that these are only a few items selected to do the cost evaluation. They must provide all of the necessary pricing information required herein.

5.3.13.2 Cost Items

5.3.13.2.1 Performance and Payment Bond Costs: This represents the cost the Contractor incurs to provide a performance and payment bond to the owner for an individual project when it is required. The bidder is to indicate the percentage rate charged on the total cost of an individual project to obtain a bond, and the documentation to substantiate the rate, that is, two percent (2%).

5.3.13.2.2 Bonding Capacity: This represents the bidder's maximum level of bonds that it can obtain at any one time. Bidder is to indicate its bonding capacity and provide documentation from a security company to substantiate the amount indicated.

5.3.13.2.3 Bidder's bid factor/multiplier applied to R.S. Means costing of products and services relating to construction projects during Normal and outside normal Hours, federal funded, project located on tribal lands and in remote areas.

5.3.13.2.4 Bidders factor/multiplier applied to the Alternative Pricing Method utilized to obtain AEPA Pricing.

5.3.13.2.5 Bidder's discounts provided on Price List and Catalogs. Note different product lines and/or category of products on published price sheets may be offered at different discount percentages. If different discount percentages are offered, AEPA will calculate an average percentage for evaluation purposes.

5.3.13.2.6 Bidder's multiplier/factor for each AEPA state and applied to the AEPA price to arrive at the individual AEPA Member's state price.

5.3.13.2.7 Bidder's Support for AEPA Pricing: This is the percent of difference between what the bidder's price to AEPA and the price that the bidder would offer the same products directly to any public educational/governmental institution in another state.

5.3.13.2.8 Utilizing the bids submitted for the above items, individual items will be selected for evaluation purposes.

5.4 Lot 3

5.4.1 Purpose and rationale for soliciting the indoor/outdoor electrical and lighting products and services covered by this lot.

5.4.1.1 During the AEPA's twelve years of procuring a variety of construction related products and services it has found that due to the number of AEPA Members and their Member agencies; the number of physical sites/locations; the various types and sizes of buildings and facilities they operate within these locations; the ongoing responsibility for new construction and the maintenance, repair and upkeep of buildings and facilities; each AEPA Member's state and local procurement codes that govern the soliciting for, acquiring and conducting projects that involve

construction products and services differ; and the available resources (work crew, equipment etc.) dictates how they accomplish and meet their individual building and facilities construction related needs.

5.4.1.2 In order to assist and meet and provide AEPA Member' and its Member Agencies' with all of the available options possible for them to procure, acquire indoor and outdoor athletic, recreational and public facilities electrical and lighting supplies, materials, fixtures, components, structures, equipment, accessories and related items only. Bidders awarded under this lot shall not provide and/or perform services/work defined as construction services by any of the AEPA Member states' procurement codes and/or governmental agencies'/entities' construction related codes, ordinances policies, rules and/or regulations the govern the construction of, maintenance, repair and renovation of public buildings/facilities. Or requires a trade/contractor's license.

5.4.1.3 It should be noted that AEPA is seeking manufacturers/distributors/suppliers who are able and capable of provide electrical and lighting supplies, materials, fixtures, complete systems, system components, structures, equipment, accessories and related items for the various indoor/outdoor lighting systems found and/or used within the various sizes and types of athletic, recreational and public facilities owned and operated by federal, state, and local educational and governmental agencies as described herein. The resulting AEPA Member contracts would put in place volume discount contracts which would allow their Member Agencies to purchase as much or as little of the products offered on an as-needed basis without having to put out their own individual bids which saves the Member Agency time and money.

5.4.2 Lot Scope of Work:

5.4.2.1 Offer and Make available their entire and comprehensive line of high quality and commercial/industrial electrical and lighting products (supplies, materials, fixtures, mounting hardware, devices, structures, lighting systems and components, equipment, and related items) from nationally recognized manufacturers.

5.4.2.2 Provide electrical and lighting safety related supplies, materials, gear, equipment, devices, and accessories used by tradesmen/workers to test, construct, erect, maintenance, repair and/or renovate facilities' lighting systems found within athletic, recreational and public facilities located within the various AEPA states.

5.4.2.3 Products provided shall have a proven tract record of durability, reliability and meeting or exceeding electrical and lighting system performance and operational specifications, industry standards and meeting national goals for environmentally friendly, energy efficient and green/energy star compliant.

5.4.2.4 Contractor shall have and maintain a sufficient product inventory that will allow AEPA Member and their Member Agencies to order electrical and lighting products on an as-needed basis to maintenance and repair their existing lighting system. Delivery shall be made within five (5) business days or less form receipt and acceptance of owner's order. Products for new construction, replacement or renovation of existing lighting systems delivery shall occur within sixty (60) days or less unless other arrangements have been made and agreed upon by all parties.

5.4.2.5 Provide the owner in-house staff and/or its contracted design professional, engineer, general contractor and/or consultant with technical assistance and support services to include but not limited to.

5.4.2.5.1 Product design, performance and operational specifications;

5.4.2.5.2 Site preparation, construction plans/drawings;

5.4.2.5.3 System installation specifications, instructions and requirements;

5.4.2.5.4 Testing and analysis methods, protocols and standards; and

- 5.4.2.5.5 Maintenance and upkeep process and procedures.
- 5.4.2.6 Prior to preparing a cost quote/proposal and accepting any order and depending on the size and type of lighting project and/or owner's requirements review, inspect and evaluate the specific project's scope of work and its requirements; the project site's physical and environmental conditions; and the type, level and kind of activities, sporting and public events to be held utilizing the lighting products being requested to ensure they are:
- 5.4.2.6.1 Appropriate, suitable and provide adequate lighting to support and facilitate, the activities and/or events being conducted within the facility;
- 5.4.2.6.2 Adequate for the current and projected site conditions and environment characteristics and will perform and meet the owner's needs and expectations; and
- 5.4.2.6.3 Products/equipment that complies with all applicable laws, regulations, codes, industry and association standards.
- 5.4.2.7 For the purpose of this solicitation and to communicate to potential bidders the level and quality of products being requested, AEPA has selected those products/systems offered by Musco Lighting Inc. a nationally known and recognized provider as a minimum standard and will welcome and consider manufacturer's products/systems that are equal to or better than those lighting products offered by Musco Lighting Inc.
- 5.4.2.8 Utilize the latest technologies available to provide easy access to AEPA Members and their Member Agencies through state of the art website, ordering and delivery systems to communicate product information, product availability, product pricing and shipping and delivery information.
- 5.4.2.9 The contractor shall have an extensive knowledge, background and experience in manufacturing, producing, obtaining, delivering, servicing and supporting the products/systems offered in response to this solicitation to public entities throughout the AEPA Member states.
- 5.4.2.10 Offer and provide electrical lighting products/systems (structures, fixtures, equipment, control systems and accessories that are factory certified and approved for the intended use by a nationally-recognized manufacturer based on industry standards. Products/systems have been tested, installed, monitored and have a documented and proven track record of their stated quality, performance, life cycle, purpose and suitability for the type and level of facility and activities/events conducted.
- 5.4.2.11 The bidder and the lighting system manufacturer shall guarantee the usability of the lighting system installed is appropriate for the site conditions that exist and for the intended uses as identified with the project's scope of work for a the period stipulated within to project's contract documents, commencing with the date of substantial completion and acceptance by the owner. The warranty coverage shall not be limited to the amount of usage.
- 5.4.2.12 Provide manufacturer's warranty with all of the forms that were completed and submitted in owner's name and registered with the manufacturer. Within this documentation if applicable the lighting system manufacturer must verify that its factory representative has inspected the installation of the completed project and that all work conforms to the manufacturer's specifications, instructions and requirements.
- 5.4.2.13 Any/all warranty terms, conditions, stipulations and/or requirements must be provided, discussed and accepted, in writing, by the owner prior to the issuing and execution of the project's contract documents and the owner's purchase order.
- 5.4.2.14 Cost/quote proposal shall contain a detailed breakdown of all costs associated with the manufacturing, obtaining and delivering of the proposed electrical and lighting products/system based on the project's detailed scope of work.

- 5.4.2.15 Final payment shall only be made after the project contract requirements have been met and the owner has signed off on the project as being completed.
- 5.4.3 Substantiating Documentation
- 5.4.3.1 Required Written Responses: Please Note: AEPA reserves the right to deem a bidder's response non-responsive if bidder fails to address the following items by not providing the necessary information and/or documentation requested below. The bidder must:
- 5.4.3.1.1 Respond to and provide all of the necessary documentation requested within Form F Contractor's Qualifications.
- 5.4.3.1.2 Through written narrative, clearly identify the type, kind, level of indoor and outdoor electrical lighting products, systems and services it is proposing to provide AEPA Members under this IFB. The response shall include:
- 5.4.2.1.2.1 The manufacturer's name(s).
- 5.4.2.1.2.2 The various indoor/outdoor electrical and lighting products/systems offered from each. For bundled lighting systems/solutions include the major component manufacturers/supplier's names and contact information.
- 5.4.2.1.2.3 Information on the lighting products and systems being proposed
- 5.4.2.1.2.4 Letter on lighting products'/systems'/solutions' manufacturer's letterhead stating and guaranteeing its lighting products/systems/solutions designs meet ALL recommendations of The Illumination Engineering Society of North America RP6-01.
- 5.4.2.1.3 Provide and/or allow access by internet to complete technical specifications, data sheets and information on all proposed indoor/outdoor lighting technologies (products/systems) being offered.
- 5.4.2.1.4 On Form F2 note any exceptions, deviations and/or discrepancies taken relating to minimum specifications, industry standards, federal, state and/or local electrical codes.
- 5.4.2.1.5 If offering lighting systems as a complete package provide certified copies of independent (third-party) laboratory testing and analysis reports stating the products/systems meets, exceeds and/or complies with the industry standards identified herein.
- 5.4.2.1.6 Completed information on any subcontractor that will be utilized to provide and/or perform services proposed in response to this solicitation.
- 5.4.2.1.7 Samples of the lighting products and/or systems manufacturer warranty to be provided to the owner covering defects in materials, workmanship, performance failure, and any other feature which is not deemed ordinary wear and tear of the lighting product/system of the type provided for the stated lifecycle from the date of Substantial Completion. If applicable the method/protocols utilized by the lighting manufacturer to verify that their onsite representative has inspected the installation and that the work conforms to the manufacturer's specifications and requirements for the warranty to be issued.
- 5.4.2.1.8 Demonstrate its ability and capacity to work with AEPA Members and their Member Agencies assess and evaluate the bidders product offerings; select the most appropriate and suitable products to meet their project's needs and requirements; provide timely and responsive pre-sales consulting and assistance; adequate ordering and just-in-time delivery services; proficient technical support and assistance before, during and after the purchasing transaction involving the electrical and lighting products offered herein by providing one (1) project with a total project cost of twenty-five to one hundred thousand dollars (\$25,000 - \$100,000); one (1) project with a total project cost of one hundred and one thousand to five hundred thousand dollars (\$101,000 - \$500,000); and one (1)

project with a total project cost that exceed five hundred thousand dollars or more (\$500,000 or more) in each of the twenty-three (23) AEPA Member states who are listed in section 3: Anticipated AEPA Member Agency as interest in participating by providing prior experience of completed jobs. The documentation shall include:

- 5.4.2.1.8.1 The general scope of work for each project and the type of electrical and lighting products/systems provided.
- 5.4.2.1.8.2 The manufacturer(s) whom products used for each project listed.
- 5.4.2.1.8.3 The total cost of each project.
- 5.4.2.1.8.4 The institution's name, address, phone number, contact person's name and title for each project.
- 5.4.2.1.8.5 Provide the time line (start and end date) for each project listed and provide a brief narrative of the pre-sale and follow-up consulting services offered to ensure institution's satisfaction.
- 5.4.2.1.8.6 Provide a brief narrative of the types of warrantee work that you had to go back and perform on the products/system since the project was completed and signed off on. Please include the following:
 - 5.4.2.1.8.6.1 Through your evaluation of the problem, what did you find as the cause of the problem?
 - 5.4.2.1.8.6.2 What products and/or services did you have to provide to resolve the problem?
 - 5.4.2.1.8.6.3 Was the customer satisfied with your solution and would they be willing to give you a letter of reference if requested to?
 - 5.4.2.1.8.6.4 Name of institutions, contact person and phone number.
- 5.4.2.1.9 Provide a narrative of your company's policies, procedures and strategies to ensure quality control, response to concerns before, during and after the project. Indicate what follow-up, review and oversight process your management team has in place to ensure owner satisfaction.

5.4.3 Cost Considerations

- 5.4.3.1 The bidder must provide a complete listing of and/or internet access to all indoor/outdoor electrical and lighting products/systems and related services that it is proposing to offer under this solicitation. All pricing must be determined by one of the pricing methods defined herein.
- 5.4.3.2 Price sheets and/or catalogs:
 - 5.4.3.2.1 For those electrical and lighting products/systems and related services that are to be priced using a manufacturer's/bidders published price list or product catalog. Provide and/or allow access to complete price list and/or catalogs that include product number, product description, unit of measure the product is available, the item's price and what that price includes (product consulting, technical support and/or delivery, etc.).
 - 5.4.3.2.2 The bidder will indicate within their response the amount of discount to be applied to each item to arrive at the individual AEPA state agency's price. Within the terms of this IFB, different manufacturers/products can have different discounts as long as the discounts are clearly stated within the bidder's response. If a price list or MSRP is not available, than the bidder must utilize the Alternative pricing method defined herein.
- 5.4.3.3 Alternative costing methodology:
 - 5.4.3.3.1 Any items not covered by a published price list/catalog. The price will be obtained by issuing, receiving and evaluating three (3) written quotes/bids based on individual AEPA state procurement codes which shall be submitted in advance and approved by the owner prior to being included into any final contract documents. AEPA Members and its Member Agencies/owners reserve the right to accept or reject any quote or proposal including such items and may obtain these items

through other procurement means (other existing contracts). The AEPA price will be determined by utilizing two percentages.

5.4.3.3.1.1 Based on the most advantages and cost effective quote received by the contractor. The contractor will apply its normal and customary overhead and profit percentages to the total cost submitted by the subcontractor and add that amount to obtain the normal and customary retail price. (item cost multiplied by percent for overhead/profit equals amount of profit and overhead to be add to item cost equal retail price).

5.4.3.3.1.2 Taking the normal and customary retail price as established in item 1 above the contractor will apply the AEPA discount percentage and subtract this amount from the normal and customary retail price to obtain the AEPA price (item retail price multiplied by percent of AEPA discount equals amount of discount to be subtracted to obtain AEPA price).

5.4.3.4 Sole Source: If products or services are required as part of the performance under this contract that can only be obtained and/or manufactured from a single source and fall under the sole source provision that is found within most states procurement codes. The contractor must provide the owner with the necessary documentation to substantiate the purchasing method as sole source.

5.4.3.5 Individual AEPA Member state multiplier/factor.

5.4.3.5.1 AEPA understands the basic cost of the product/services listed on a published price list, obtained through the alternative pricing method and/or sole source indicates the cost of obtaining, manufacturing, warehousing and preparing the product for shipping it to the project site and provide the associated services to the owner. It is also understood that because of the nature of and shipping requirements of the electrical and lighting products offered that additional delivery costs may be incurred due to the distance from the bidder's distribution point/warehouse and the AEPA Member'/Member Agency's project location/site. Therefore, for each of the AEPA states list herein, provide your multiplier/factor to be applied the base AEPA price shown on the published price list/alternative pricing method and/or sole sources to arrive at the individual AEPA state price.

5.4.3.5.2 Example: if the published price on the price list is \$1,000 and the AEPA discount is twenty (20%). The AEPA price would be ($\$1,000 \times .20 = \200 amount of AEPA discount and $\$1,000 - \$200 =$ an AEPA price of \$800). If the of the bidder bid a state multiplier/factor of 1.02%, the calculation would be ($\$800 \times 1.02 =$ \$816) to arrive at the AEPA state price \$816.

5.4.4 Bidder Qualification Evaluation Criteria for Lot 3.

5.4.4.1 Bidder who do not currently possess the necessary qualifications, trained and experienced personnel, financial capacity, and do not meet the other requirements stated herein will be disqualified and their response considered non-responsive.

5.4.4.2 Bidder shall have been in business at least 10 consecutive years under the same name and shall have provided electrical and lighting products/ systems to a minimum of sixty-three (63) athletic, recreational and public facility lighting projects. The bidder must specialized in commercial electrical and lighting products/systems at its primary business and be focused in providing the various indoor and outdoor electrical and lighting technologies covered by this solicitation.

5.4.4.3 The bidder's past experienced and proven track record of obtaining, manufacturing and delivering the products being offered in response to this solicitation. Providing timely and quality consulting, technical, support and related services for the electrical and lighting products/systems offered on a nationwide bases (indicated AEPA states) as specified herein.

5.4.4.4 Bidder demonstrated its ability, capacity and available resources to meet the athletic, recreational and public facility electrical and lighting project requirements covered by this solicitation by communicating.

- 5.4.4.5 Bidder holds current and has maintained in good standings the necessary manufacturer's, industry, federal, state and/or local certifications, business licenses/registrations, insurance and/or bonding if required to design, develop, manufacturer, deliver, warrantee and support the indoor/outdoor athletic, recreational and public facilities electrical lighting products/systems offered in response to this solicitation to the indicated AEPA Member states.
- 5.4.4.6 The quality, level, background and experience of its in-house and/or contracted personnel/subcontractors (professional design, engineering, consulting, sales, project management, inspectors and support personnel to meet the solicitation's requirements.
- 5.4.4.7 Maintains and/or has access to an adequate inventory of indoor/outdoor lighting and electrical supplies, materials, equipment, structures, fixtures, devices, etc., to manufacturer, provide, deliver, configure, service and support the products/systems offered in response to this solicitation and complies with its requirements.
- 5.4.4.8 AEPA reserves the right to reject any bid if the evidence/documentation submitted by, or investigation of, such bidder fails to satisfy the AEPA that the bidder can properly qualify to carry out the obligation of any part of the products and services proposed in response to this solicitation.
- 5.4.4.9 The ability of any bidder to demonstrate its ability and capacity; to obtain and keep current the appropriate manufacturer's certifications and authorizations; business licenses and/or registrations required by any of the indicated AEPA Member states; possess the financial resources to manufacturer, obtain and deliver the electrical and lighting products on an as needed bases to the various AEPA Member states located throughout the US; and has the necessary insurances in place to protect both itself, its subcontractors, and the individual project owners as required by individual AEPA Member state laws.
- 5.4.5 Cost evaluation will be based on a point system with points being awarded for being a low to high bidder for each cost evaluation item, that is, contractor's discount off published price list/catalogs, overhead and profit percentage markup, individual AEPA state's multiplier/factor to be added to AEPA price, etc. If a bidder leaves out an item that is required, AEPA will allot zero (0) points to that item, and if awarded a contract, cannot be used in providing products or services. The low bidder will receive the full point value and all other bidders will receive points calculated as follows:

$$\text{(Lowest Bid / Other Bid)} \times \text{point value}$$
- 5.5.6.5 Cost Evaluation Information (Form G): The following factors will be used to evaluate and award this solicitation. Please note that these are only a few items selected to do the cost evaluation. They must provide all of the necessary pricing information required herein.
- 5.5.6.5.1 Alternative Method of Costing: Percentage of overhead and profit. This method includes custom manufactured items or sole source items. Bidder is to indicate the percent of overhead and/or markup to be applied to these costs to obtain the retail cost. Example: Item cost \$1,000 multiplied by percent of profit/overhead 20% equals \$200 for overhead and profit. Item cost is \$1,000 plus overhead and profit of \$200, equals a retail price of \$1,200. Note this percentage has no relationship to the R. S. Means costing method indicated above.
- 5.5.6.5.2 Alternative Method of Costing: Percentage of AEPA Discount to obtain AEPA Price (item retail price multiplied by percent of AEPA discount equals amount of discount to be subtracted from retail price to obtain AEPA price). Example: Item retail cost \$1,200 multiplied by percent of 10% AEPA discount equal discount of

points calculated as follows:

(Lowest Bid / Other Bid) x point value

- 5.5.6.5 Cost Evaluation Information (Form G): The following factors will be used to evaluate and award this solicitation. Please note that these are only a few items selected to do the cost evaluation. They must provide all of the necessary pricing information required herein.
- 5.5.6.5.1 Alternative Method of Costing: Percentage of overhead and profit. This method includes custom manufactured items or sole source items. Bidder is to indicate the percent of overhead and/or markup to be applied to these costs to obtain the retail cost. Example: Item cost \$1,000 multiplied by percent of profit/overhead 20% equals \$200 for overhead and profit. Item cost is \$1,000 plus overhead and profit of \$200, equals a retail price of \$1,200. Note this percentage has no relationship to the R. S. Means costing method indicated above.
- 5.5.6.5.2 Alternative Method of Costing: Percentage of AEPA Discount to obtain AEPA Price (item retail price multiplied by percent of AEPA discount equals amount of discount to be subtracted from retail price to obtain AEPA price). Example: Item retail cost \$1,200 multiplied by percent of 10% AEPA discount equal discount of \$120. Retail cost \$1,200 less the AEPA discount of \$120, equals the AEPA price of \$1,080. Note this percentage has no relationship to the percentage of discount of manufacturer's/suppliers price sheets or catalogs indicated below.
- 5.5.6.6 Discounts Provided on Price List and Catalogs: This represents the average discount provided by the bidder on stated prices. Note different product lines and/or category of products on published price sheets may be offered at different discount percentages. If different discount percentages are offered, AEPA will calculate an average percentage for evaluation purposes.
- 5.5.6.7 Provide for each of the AEPA states listed, your multiplier/factor to be applied to the AEPA price, calculated from the published price, alternative and sole source pricing methodologies list to arrive at the individual AEPA state price.
- 5.5.6.8 Bidder's Support for AEPA Pricing: This is the percent of difference between what the bidder's price to AEPA and the price that the bidder would offer the same products directly to any public educational/governmental institution in another state. The bidder's AEPA price is \$100, the bidder's direct price to public educational/governmental institutions is \$103. The difference is 3% percent.
- 5.5.6.9 Utilizing the bids submitted for the above items, individual items will be selected for evaluation purposes.

TECHLINE SPORTS LIGHTING



STEVE JONES - AUTHORIZED REPRESENTATIVE