



ALASKA ENERGY AUTHORITY

PROCUREMENT DEPARTMENT  
813 W Northern Lights Blvd  
Anchorage, AK 99503

**RETURN BY EMAIL**  
[AEAProcurement@akenergyauthority.org](mailto:AEAProcurement@akenergyauthority.org)

### REQUEST FOR QUOTATION

RFQ NO: **25029**  
Quotations due on/before  
**2:00 PM** Local Time  
**03/04/2025**

# Padmount Transformer Purchase

Page 1 of 4 Date: 02/07/25

#### VENDOR NOTICE (This is NOT a Purchase Order)

This is an **informal quotation** that will not be read at public opening. The information may be publicly reviewed after award. The terms and conditions should be reviewed and understood before preparing a quotation. The quotation shall be the best net price, FOB destination, to include all delivery charges, but exclude applicable taxes. Delivery schedule shall be indicated in the spaces provided below. Please return the quotation by the above time and date to the address: [AEAProcurement@akenergyauthority.org](mailto:AEAProcurement@akenergyauthority.org). Please reference the RFQ number on the SUBJECT of the email. Please include the completed and signed Debarment Certificate, page 4 of Appendix B and the completed and signed Build America Buy America Act Certificate, page 5 of Appendix B.

**DELIVERY LOCATION:**  
Alaska Energy Authority  
2601 Commercial Drive  
Anchorage AK 99501

**PROCUREMENT OFFICER:**  
Selwin C. Ray (907) 771-3035  
[AEAProcurement@akenergyauthority.org](mailto:AEAProcurement@akenergyauthority.org)

#### VENDOR QUOTATION

Item	Description of Supply or Service	Qty	Unit	Unit Price	Extended Price
1	Three Phase Transformer for Step Up Service, 500 kVA, Primary Voltage 12.47/7.2kVA Grounded Wye, Secondary Voltage 480/277 Grounded Wye	1	EA		

**See the following pages for Standard Terms and Conditions.**  
**See Appendix A Specifications for detailed description of equipment.**  
**See Appendix B Federal Assurances for additional requirements.**

#### THIS SECTION MUST BE COMPLETED BY VENDOR

Delivery is desired no later than **August 15, 2025**.  
Delivery shall be made by the following date \_\_\_\_\_.  
Note that the schedule for the project is critical so a delivery date significantly later than the desired date may cause a bid to be declared not responsive unless no quotes can meet the desired delivery date.

Company Name	Address	City	St	ZIP Code	Phone Number
Alaska Business License No.	Vendor Tax I.D.				
_____ Signature		_____ Date		_____ Typed Name and Title	

**INSTRUCTIONS TO BIDDERS  
TERMS AND CONDITIONS**

**1. REQUEST FOR QUOTATION (RFQ) REVIEW:** Offerors shall carefully review this RFQ for defects and questionable or objectionable material. Offerors' comments concerning defects and questionable or objectionable material in the RFQ must be made in writing and received by the purchasing authority before the date and time set for receipt of quotes. This will allow time for an amendment to be issued if one is required. It will also help prevent the opening of a defective quote, upon which award cannot be made, and the resultant exposure of offerors' prices. Offerors' original comments should be sent to the purchasing authority listed on the front of this RFQ.

**2. QUOTATION FORMS:** Offerors shall use this and attached forms in submitting quotes. A photocopied quote may be submitted.

**3. SUBMISSION:** Quotations shall be signed where applicable and received at the designated Purchasing Office no later than as indicated.

**4. QUOTE REJECTION:** The State reserves the right to reject any or all quotes, combinations of items, or lot(s), and to waive defects or minor informalities.

**5. EXTENSION OF PRICES:** In case of error in the extension of prices in the quote, the unit prices will govern; in a lot bid, the lot prices will govern. Negligence by the vendor in preparing the quotation confers no right for the withdrawal of the quotation after it has been opened.

**6. ALASKA PROCUREMENT CODE:** 3 AAC 109 and 2 AAC Ch. 12 are made a part of this document as if fully set forth herein. Note that 3 AAC 109 and 2 AAC Ch. 12 are available at most public libraries and legislative information offices; and both are available for review at Alaska State Purchasing Offices.

**7. PRICES:** The offeror shall state prices in the units of issue on this RFQ. Prices quoted for commodities must be in U.S. funds and include applicable federal duty, brokerage fees, packaging, and transportation cost to the FOB point so that upon transfer of title the commodity can be utilized without further cost. Prices quoted for services must be quoted in U.S. funds and include applicable federal duty, brokerage fee, packaging, and transportation cost so that the services can be provided without further cost. Prices quoted must be exclusive of federal, state, and local taxes. If the offeror believes that certain taxes are payable by the State, the offeror may list such taxes separately, directly below the bid price for the affected item. The State is exempt from Federal Excise Tax except the following:

- Coal - Internal Revenue Code of 1986 (IRC), Section 4121 - on the purchase of coal;
- "Gas Guzzler" - IRC, Section 4064 - on the purchase of low m.p.g. automobiles, except that police and other emergency type vehicles are not subject to the tax;
- Air Cargo - IRC, Section 4271 - on the purchase of property transportation services by air;
- Air Passenger - IRC, Section 4261 - on the purchase of passenger transportation services by air carriers;
- Leaking Underground Storage Tank Trust Fund Tax (LUST) - IRC, Section 4081 - on the purchase of Aviation gasoline, Diesel Fuel, Gasoline, and Kerosene.

**8. PAYMENT FOR STATE PURCHASES:** Payment for agreements under \$500,000 for the undisputed purchase of goods or services provided to a State agency, will be made within 30 days of the receipt of a proper billing or the delivery of the goods or services to the location(s) specified in the agreement, whichever is later. A late payment is subject to 1.5% interest per month on the unpaid balance. Interest will not be paid if there is a dispute or if there is an agreement which establishes a lower interest rate or precludes the charging of interest.

**9. PAYMENT DISCOUNT:** Discounts for prompt payment will not be considered in evaluating the price you quote. However, the State shall be entitled to take advantage of any payment discount(s) offered by the vendor provided payment is made within the discount period. Payment discount periods will be computed from the date of receipt of the commodities or services and/or a correct invoice, whichever is later. Unless freight and other charges are itemized, any discount provided will be taken on full amount of invoice.

**10. VENDOR TAX ID NUMBER:** If goods or services procured through this RFQ are of a type that is required to be included on a Miscellaneous Tax Statement, as described in the Internal Revenue Code, a valid tax identification number must be provided to the State of Alaska before payment will be made.

**11. INDEMNIFICATION:** The Contractor shall indemnify, hold harmless, and defend the contracting agency from and against any claim of, or liability for error, omission or negligent act of the Contractor under this agreement. The Contractor shall not be required to indemnify the contracting agency for a claim of, or liability for, the independent negligence of the contracting agency. If there is a claim of, or liability for, the joint negligent error or omission of the Contractor and the independent negligence of the Contracting agency, the indemnification and hold harmless obligation shall be apportioned on a comparative fault basis. "Contractor" and "Contracting agency", as used within this and the following article, include the employees, agents and other contractors who are directly responsible, respectively, to each. The term "independent negligence" is negligence other than in the Contracting agency's selection, administration, monitoring, or controlling of the Contractor and in approving or accepting the Contractor's work.

**12. SEVERABILITY:** If any provision of this contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the parties shall be construed and enforced as if the contract did not contain the particular provision held to be invalid.

**13. TITLE:** Title passes to the State for each item at FOB destination.

**14. FILING A PROTEST:** An offeror shall attempt to informally resolve a dispute with the procurement officer regarding a small procurement. If the attempt is unsuccessful, the vendor may protest the solicitation or the award of a small procurement contract under 3 AAC 109 and 2 AAC 02-110 (010/14)

**INSTRUCTIONS TO BIDDERS  
TERMS AND CONDITIONS**

Ch. 12. The protest must be filed in writing with the commissioner of the purchasing agency or the commissioner's designee and include the following information: (1) the name, address, and telephone number of the protester; (2) the signature of the protester or the protester's representative; (3) identification of the contracting agency and the solicitation or contract at issue; (4) a detailed statement of the legal and factual grounds of the protest, including copies of relevant documents; and (5) the form of relief requested. The protester must file a copy of the protest with the procurement officer for the purchasing agency. Protests will be treated in accordance with 3 AAC 109 and 2 AAC Ch. 12.

**15. COMPLIANCE:** In the performance of a contract that results from this RFQ, the contractor must comply with all applicable federal, state, and borough regulations, codes, and laws; and be liable for all required insurance, licenses, permits and bonds; and pay all applicable federal, state, and borough taxes.

**16. SUITABLE MATERIALS, ETC.:** Unless otherwise specified, all materials, supplies or equipment offered by an offeror shall be new, unused, and of the latest edition, version, model or crop and of recent manufacture.

**17. SPECIFICATIONS:** Unless otherwise specified in the RFQ, product brand names or model numbers are examples of the type and quality of product required, and are not statements of preference. If the specifications describing an item conflict with a brand name or model number describing the item, the specifications govern. Reference to brand name or number does not preclude an offer of a comparable or better product, if full specifications and descriptive literature are provided for the product. Failure to provide such specifications and descriptive literature may be cause for rejection of the offer.

**18. FIRM OFFER:** For the purpose of award, offers made in accordance with this RFQ must be good and firm for a period of ninety (90) days from the date of quote opening.

**19. QUOTE PREPARATION COSTS:** The State is not liable for any costs incurred by the offeror in quote preparation.

**20. CONSOLIDATION OF AWARDS:** Due to high administrative costs associated with processing of purchase orders, a single low quote of \$50 or less may, at the discretion of the State, be awarded to the next low offeror receiving other awards for consolidation purposes. This paragraph is not subject to the protest terms enumerated in "FILING A PROTEST" above.

**21. CONTRACT FUNDING:** Offerors are advised that funds are available for the initial purchase and/or the first term of the contract. Payment and performance obligations for succeeding purchases and/or additional terms of the contract are subject to the availability and appropriation of funds.

**22. CONFLICT OF INTEREST:** An officer or employee of the State of Alaska may not seek to acquire, be a party to, or possess a financial interest in, this contract if (1) the officer or employee is an employee of the administrative unit that supervises the award of this contract; or (2) the officer or employee has the power to take or withhold official action so as to affect the award or execution of the contract.

**23. ASSIGNMENT(S):** Assignment of rights, duties, or payments under a contract resulting from this RFQ is not permitted unless authorized in writing by the procurement officer of the contracting agency. Quotes that are conditioned upon the State's approval of an assignment will be rejected as nonresponsive.

**24. SUBCONTRACTOR(S):** Within five (5) working days of notice from the state, the apparent low bidder must submit a list of the subcontractors that will be used in the performance of the contract. The list must include the name of each subcontractor and the location of the place of business for each subcontractor and evidence of each subcontractor's valid Alaska business license.

**25. FORCE MAJEURE (Impossibility to perform):** The parties to a contract resulting from this RFQ are not liable for the consequences of any failure to perform, or default in performing, any of its obligations under the contract, if that failure or default is caused by any unforeseeable Force Majeure, beyond the control of, and without the fault or negligence of, the respective party. For the purposes of this Agreement, Force Majeure will mean war (whether declared or not); revolution; invasion; insurrection; riot; civil commotion; sabotage; military or usurped power; lightning; explosion; fire; storm; drought; flood; earthquake; epidemic; quarantine; strikes; acts or restraints of governmental authorities affecting the project or directly or indirectly prohibiting or restricting the furnishing or use of materials or labor required; inability to secure materials, machinery, equipment or labor because of priority, allocation or other regulations of any governmental authorities.

**26. LATE QUOTES:** Late quotes are quotes received after the time and date set for receipt of the quotes. Late quotes will not be accepted.

**27. CONTRACT EXTENSION:** Unless otherwise provided in this RFQ, the State and the successful offeror/contractor agree: (1) that any holding over of the contract excluding any exercised renewal options, will be considered as a month-to-month extension, and all other terms and conditions shall remain in full force and effect and (2) to provide written notice to the other party of the intent to cancel such month-to-month extension at least thirty (30) days before the desired date of cancellation.

**28. DEFAULT:** In case of default by the contractor, for any reason whatsoever, the State of Alaska may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law or equity.

**29. DISPUTES:** If a contractor has a claim arising in connection with a contract resulting from this RFQ that it cannot resolve with the State by mutual agreement, it shall pursue a claim, if at all, in accordance with the provisions of 3 AAC 109 and 2 AAC Ch. 12.

**INSTRUCTIONS TO BIDDERS  
TERMS AND CONDITIONS**

**30. GOVERNING LAW; FORUM SELECTION:** A contract resulting from this RFQ is governed by the laws of the State of Alaska. To the extent not otherwise governed by section 29 of these Standard Terms and Conditions, any claim concerning the contract shall be brought only in the Superior Court of the State of Alaska and not elsewhere.

**31. CONSUMER ELECTRICAL PRODUCT:** AS 45.45.910 requires that "...a person may not sell, offer to sell, or otherwise transfer in the course of the person's business a consumer electrical product that is manufactured after August 14, 1990, unless the product is clearly marked as being listed by an approved third party certification program." Electrical consumer products manufactured before August 14, 1990, must either be clearly marked as being third party certified or be marked with a warning label that complies with AS 45.45.910(e). Even exempted electrical products must be marked with the warning label. By signature on this quote the offeror certifies that the product offered is in compliance with the law. A list of approved third party certifiers, warning labels and additional information is available from: Department of Labor, Labor Standards & Safety Division, Mechanical Inspection Section, P.O. Box 107020, Anchorage, Alaska 99510-7020, (907)269-4925.

**32. CONTINUING OBLIGATION OF CONTRACTOR:** Notwithstanding the expiration date of a contract resulting from this RFQ, the contractor is obligated to fulfill its responsibilities until warranty, guarantee, maintenance and parts availability requirements have completely expired.

**33. ORDER DOCUMENTS:** Except as specifically allowed under this RFQ, an ordering agency will not sign any vendor contract. The State is not bound by a vendor contract signed by a person who is not specifically authorized to sign for the State under this RFQ. The State of Alaska Purchase Order, Contract Award and Delivery Order are the only order documents that may be used to place orders against the contract(s) resulting from this RFQ.

**34. BILLING INSTRUCTIONS:** Invoices must be billed to the ordering agency's address shown on the individual Purchase Order, Contract Award or Delivery Order. The ordering agency will make payment after it receives the merchandise or service and the invoice. Questions concerning payment must be addressed to the ordering agency.

**35. OFFERORS WITH DISABILITIES:** The State of Alaska complies with Title II of the Americans with Disabilities Act of 1990. Individuals with disabilities who may need auxiliary aids, services, and/or special modifications to participate in this procurement should contact the procurement officer named on the cover page of this RFQ as soon as possible, but no later than the date and time quotations are due to make any necessary arrangements.

**36. COMPLIANCE WITH ADA:** By signature of their quote the bidder certifies that they comply with the Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government. Services or activities furnished to the general public on behalf of the State must be fully accessible. This is intended to ensure that agencies are in accordance with 28 CFR Part 35 Section 35.130 and that services, programs or activities furnished to the public through a contract do not subject qualified individuals with a disability to discrimination based on the disability.

**37. FEDERAL ASSURANCES:** Because this contract is funded with federal funds, the provisions of Appendix B, Federal Assurances, shall apply. When submitting the quote, the vendor shall include the Debarment Certificate, page 4 of Appendix B and the Build America Buy America Act Certificate, page 5 of Appendix B.

## **PADMOUNT LIQUID-FILLED UTILITY TRANSFORMERS**

### **PART 1 - GENERAL**

#### **1.1 SCOPE**

- A. This specification covers electrical characteristics and mechanical safety features of mineral-oil immersed, self-cooled, padmounted transformers with separable insulated high voltage bushings. All characteristics, voltage designations and tests shall be in accordance with the latest editions of the standards specified herein.
- B. Transformers shall be designed in accordance with RUS requirements and shall be of new construction.
- C. The transformers will be non-evaluated units but shall be provided with minimum efficiencies as specified herein.
- D. Quantities and ratings shall be as indicated on the Request for Quotation.
- E. Transformers shall be suitable for step-down service or step-up service as indicated on the Request for Quotation.

#### **1.2 RELATED REQUIREMENTS – not used**

#### **1.3 STANDARDS**

All characteristics, definitions, and terminology, except as specifically covered in this specification, shall be in accordance with the latest edition of the following ANSI, IEEE, Department of Energy and NEMA standards.

- C57.12.00: IEEE Standard General Requirements for Liquid-Immersed Distribution, Power, and Regulating Transformers.
- C57.12.28: IEEE Standard Pad-Mounted Equipment–Enclosure Integrity.
- C57.12.34: IEEE Standard Requirements for Pad-Mounted, Compartmental-Type, Self-Cooled, Three-Phase Distribution Transformers (2500 kVA and Smaller) - High Voltage: 34500GrdY/19920 Volts and Below; Low-Voltage: 480 Volt 2500 kVA and Smaller.
- C57.12.35: IEEE Standard Bar Coding for Distribution Transformers and Step-Voltage Regulators.
- C57.12.37: IEEE Standard for the Electronic Reporting of Distribution Transformer Test Data.
- C57.12.38: IEEE Standard for Pad-Mounted-Type, Self-Cooled, Single-Phase Distribution Transformers 250kVA and Smaller: High Voltage, 34,500 GrdY/19920V and Below; Low Voltage, 480/240V and Below.
- C57.12.90: IEEE Standard Test Code for Liquid-Immersed Distribution, Power, and Regulating Transformers.
- C57.12.91: IEEE Guide for Loading Mineral-Oil-Immersed Transformers and Step-Voltage Regulators.

C57.12.154:	IEEE Standard for the Design, Testing, and Application of Liquid-Immersed Distribution, Power, and Regulating Transformers using High-Temperature Insulation Systems and Operating at Elevated Temperatures.
NEMA TR-1:	Transformers, Regulators and Reactors, Audible Sound Levels for Liquid-Immersed Power Transformers.
NEMA TP-1:	Guide for Determining Energy Efficiency for Distribution Transformers
NEMA TP-3:	Standard for Labeling of Distribution Transformer Efficiency.
NEMA 260:	Safety Labels for Pad-Mounted Switchgear and Transformers Sited in Public Areas.
DOE:	10 CFR Part 431 – Department of Energy – Energy Conservation Program for Commercial Equipment: Distribution Transformers Energy Conservation Standards; Final Rule.
IEEE Std. 386:	IEEE Standard for Separable Insulated Connector Systems for Power Distribution Systems Above 600 Volts,

#### 1.4 SUBMITTALS

Shop Drawings and Product Data: Provide complete submittals in PDF format. At a minimum, submit the following:

- A. Prior to beginning fabrication submit the following for approval:
  - 1. Complete transformer electrical data, mechanical and layout drawings, and wiring and connection diagrams for each type of transformer provided.
  - 2. Drawings shall indicate the kVA rating, transformer impedance, losses, voltage (both primary and secondary), phase of the transformer, winding connection, and tap changers.
  - 3. Nameplate for each size transformer.
  - 4. Manufacturer's statement or certification of Build America, Buy America Act (BABA) compliance.
- B. Transformers: Upon completion of fabrication and prior to shipping submit:
  - 1. Provide certified test reports prior to shipment of the transformers. Test reports shall indicate the impedance, no load, and full load loss of each transformer, by serial number, and shall include the transformer efficiency, expressed in percent, of the transformer based on the test procedures required by DOE 10 CFR Part 431. Provide sound level of the transformer in dBA.
  - 2. A statement identifying the amount of PCB in the insulating oil.

#### 1.5 WARRANTY

The failure of any transformer due to defective design, material and/or workmanship within 12 months after being energized or eighteen months after being delivered, whichever comes first, shall be repaired or replaced without cost. Any defect in design,

material and/or construction discovered within this period shall be corrected at the manufacturer's expense, either by repair or replacement.

## **PART 2 – PRODUCTS**

### **2.1 RATINGS**

#### **A. General:**

- |    |                           |   |
|----|---------------------------|---|
| 1. | Primary Voltage Rating:   | As indicated on the Request for Quotation.                        |
| 2. | Secondary Voltage Rating: | As indicated on the Request for Quotation.                        |
| 3. | Frequency:                | 60 Hz.  |
| 4. | Phase:                    | Single or three-phase, as indicated on the Request for Quotation. |
| 5. | Impedance:                | NEMA Standard.  |
| 6. | kVA Rating:               | As indicated on the Request for Quotation.                        |
| 7. | BIL Rating:               | 7.2/12.47 kV: 95 kV.<br>600 Volt and lower: 30 kV.                |
| 8. | Temperature Rating:       | Self-cooled, 65° C above a 30° C ambient.                         |

### **2.2 ACCEPTABLE MANUFACTURERS**

Acceptable manufactures shall be as follows.

- A. ABB.
- B. Cooper Power.
- C. Ermco.
- D. G. E. Prolec.
- E. Howard Transformers.
- F. Approved equal.

### **2.3 TRANSFORMER VOLTAGES**

- A. Transformer primary and secondary voltages shall be as indicated on the Request for Quotation.

### **2.4 EFFICIENCY**

The efficiency requirement of DOE 10 CFR part 431.196, for liquid filled transformers, is provided below. Transformers shall meet or exceed the efficiency requirements listed.

Single-phase		Three-phase	
kVA	Efficiency (%)	kVA	Efficiency (%)
10	98.70	15	98.65
15	98.82	30	98.83
25	98.95	45	98.92
37.5	99.05	75	99.03
50	99.11	112.5	99.11
75	99.19	150	99.16
100	99.25	225	99.23
167	99.33	300	99.27
250	99.39	500	99.35
333	99.43	750	99.40
500	99.49	1000	99.43
667	99.52	1500	99.48
833	99.55	2000	99.51
		2500	99.53

**Note:** All efficiency values shall be at 50 percent of nameplate-rated load, determined according to the DOE Test-Procedure. 10 CFR Part 431, Subpart K, Appendix A.

## 2.5 TRANSFORMER LOSSES

- A. Transformer no load and load losses shall be quoted with the transformer bid and shall be guaranteed by the manufacturer. Transformer losses determined by the factory tests on the individual transformers shall not exceed the guaranteed bid losses by more than the following:

### Tolerance for Transformer Losses

No-Load Losses (%)	Total Losses (%)
10	6



No individual unit shall be shipped that exceeds guaranteed no load losses by more than 10%.

## 2.6 TRANSFORMER TAPS

Transformers shall be furnished with four each 2-1/2% full capacity high-voltage taps, 2 above and 2 below rated nominal voltage. The tap changer shall be clearly labeled to reflect that the transformer must be de-energized before operating the tap changer as required in Section 4.3 of IEEE Std C57.12.34.

## 2.7 THREE-PHASE TRANSFORMER TERMINAL ARRANGEMENTS

- A. Primary bushings shall consist of 200-amp loadbreak inserts in accordance with the following.
1. High voltage bushings shall be installed in the high voltage termination compartment located on the front left of the transformer and requiring access via the low voltage termination compartment on the front right.
  2. The high voltage bushings shall be 15 kV 200A bushing wells with bushing well inserts installed. The bushings shall be externally removable and be supplied with a removable stud.
  3. The transformer shall be provided with six (6) high voltage bushings in accordance Figure 2 dimensions of IEEE Std C57.12.34 standard for loop feed configurations. The bushing heights shall be in accordance with Figure 3 minimum dimensions of IEEE Std C57.12.34 standard.
  4. A cable accessory parking stand shall be provided and shall be located such that the separable insulated connectors can be operated with hot-line tools.
- B. Secondary terminals:
1. On three-phase transformers with 600 volt, or less, rated secondary windings the secondary terminals shall be provided with tin-plated spade-type bushings for vertical takeoff. The spacing of the connection holes shall be 1.75" on center, per ANSI C57.12.34 Figure 13a. Provide six connection holes.
- C. On transformers provided with a wye-wye connection, the primary neutral connection shall be brought out as a fully insulated H0 bushing in the primary compartment and the low voltage neutral connection shall be brought out as a fully insulated X0 bushing in the secondary compartment. A single H0/X0 bushing will not be acceptable. Provide each bushing with a removable external ground strap connected to a ground pad.

## 2.8 SINGLE-PHASE TRANSFORMER TERMINAL ARRANGEMENTS not used

## 2.9 PROTECTION

- A. Bayonet with current limiting fuses. The high-voltage overcurrent protection scheme provided with the transformer shall be an externally removable loadbreak expulsion Bay-O-Net fuse assembly with a flapper valve to minimize oil spillage. The bayonet fuses shall be in series with ELSP under-oil partial-range current-limiting back-up fuses with an interrupting rating of 50,000 RMS symmetrical

amperes interrupting with minimum melting current approximately 200% of transformer nameplate rating.

## **2.10 CORE AND COIL**

- A. Windings shall be copper or aluminum. All windings shall meet with the guaranteed temperature rise requirements.
- B. The core shall be manufactured from burr-free, amorphous metal or grain-oriented silicon steel and shall be precisely stacked to eliminate gaps in the corner joints. The coil shall be insulated with B-stage, epoxy coated, diamond pattern, insulating paper, which shall be thermally cured under pressure to ensure proper bonding of conductor and paper.
- C. The core and coil shall be vacuum processed to ensure maximum penetration of insulating fluid into the coil insulation system. While under vacuum the transformer shall be filled with preheated filtered degassed insulating fluid.

## **2.11 TANK AND CABINET**

- A. The enclosure integrity of the tank and cabinet shall meet the requirements for tamper resistance set forth in the latest edition of IEEE Std. C57.12.28 including but not limited to the pry test, pull test, and wire probe test.
- B. Enclosures:
  - 1. Three-phase transformers shall be compartmental type with dual compartment and barrier between high and low voltage compartments. The high-voltage and low-voltage compartments, separated by a metal barrier, shall be located side-by-side on one side of the transformer tank. When viewed from the front, the low-voltage compartment shall be on the right. Each compartment shall have a door that is constructed so as to provide access to the high-voltage compartment only after the door to the low-voltage compartment has been opened. There shall be one or more additional fastening devices that must be removed before the high-voltage door can be opened. Where the low-voltage compartment door is of a flat panel design, the compartment door shall have three-point latching with a handle provided for a locking device. Hinge pins and associated barrels shall be constructed of corrosion-resistant material, passivated AISI Type 304.
  - 2. A recessed, captive, silicone bronze or stainless steel penta-head bolt that meets the dimensions per IEEE Std C57.12.28 standard shall secure all access doors. Handles and doors shall be provided with provisions for padlocking.
  - 3. The compartment depth shall be in accordance with IEEE STD C57.12.34 standard, unless additional depth is specified.
  - 4. Transformer enclosures shall be provided with a 304 stainless steel cabinet, door, and sill.
  - 5. All hardware, handles, and hinges shall be 304 stainless steel.
  - 6. Enclosures shall meet ANSI C57.12.28 for enclosure integrity.

**C. TANK**

1. The transformer tank shall be carbon steel with a 304 stainless steel base. Note that the transformer tank may be 304 stainless steel at the manufacturer's preference.
2. Bolted main tank cover, where applicable.
3. The tank base shall be designed to allow skidding or rolling in any direction. Lifting provisions shall consist of four lifting lugs welded to the tank.
4. The transformer shall be of sealed tank construction of sufficient strength to withstand a pressure of 7 psig without permanent distortion, and 15 psig without rupturing or affecting cabinet security.
5. The tank shall include a pressure relief device as a means to relieve pressure in excess of pressure resulting from normal operation. The venting and sealing characteristics shall be as follows:
  - a. Cracking pressure: 10psig  $\pm$  2psig.
  - b. Resealing pressure: 6psig minimum.
  - c. Zero leakage from reseal pressure to -8psig.
  - d. Flow at 15 psig: 35 SCFM minimum.

**2.12 PAINTING**

- A. The transformer unit shall be painted Munsell 7GY3.29/1.5 green. All parts of the transformer shall be painted.
- B. The tank and cabinet coating shall meet all the requirements of the latest edition of IEEE Std C57.12.28 including:
  1. Salt spray.
  2. Crosshatch Adhesion Test.
  3. Humidity Test.
  4. Impact Test.
  5. Oil Resistance Test
  6. Ultraviolet Accelerated Weathering Test.
  7. Abrasion Resistance - Taber Abraser.

**2.13 INSULATING OIL**

The dielectric coolant in the transformer shall be highly refined Type II inhibited new mineral oil and meet the minimum requirements as specified in Table 1, "Functional Property Requirements," of ASTM D3487 and ANSI C57.106.

**2.14 TRANSFORMER AUDIBLE SOUND LEVEL**

- A. The padmount transformer shall be designed and constructed to minimize the audible noise generated with the transformer energized at rated voltage.

- B. Standard transformer sound level shall not exceed the values given in Table 2 of the latest edition of NEMA Publication TR1.

Transformers shall meet or exceed the sound level requirements listed below.

<b>kVA</b>	<b>Average Sound Level Decibels</b>
0-50	48
51-100	51
101-300	55
301-500	56
501-750	57
751-1000	58

## 2.15 NAMEPLATES & LABELS

- A. Diagrammatic nameplate that conforms to the latest edition of ANSI C57.12.00. Impedance of the transformer shall be included on the nameplate. The nameplate shall be etched and black-filled aluminum or stainless steel. Affix to the enclosure with rivets.
- B. Safety labels shall be provided with each transformer. Safety labels shall meet the latest edition of NEMA Standard No. 260. Labels shall be made of weather resistant material per the latest edition of NEMA Standard 9.15 and UL969.
- C. In addition to warning labels, provide a label indicating the transformer kVA rating on the front of the transformer, in minimum 2-1/2" black letters.

## 2.16 ACCESSORIES

Provide the following accessories:

- A. Three-Phase Transformers:
1. Bolted main tank cover.
  2. 1.0" upper fill plug.
  3. 1.0" drain valve with sampling device in LV compartment.
  4. Tank anchoring.
  5. Automatic pressure relief valve.
  6. Metal drip shield.
  7. Ground provisions per C57.12.34 section 9.11.
  8. Liquid level gauge.

9. Dial-type thermometer gauge.
10. Pressure vacuum gauge.
11. 24" deep cabinet.

### **PART 3 – EXECUTION**

#### **3.1 TESTING AND LOSSES**

- A. All units shall be tested for the following:
  1. No Load (Core) Losses at 20°C.
  2. Load Losses at 85°C and rated current.
  3. Total Losses at 85°C.
  4. Percent Impedance at 85°C and rated current.
  5. Excitation current (100% voltage) test.
  6. Efficiency.
  7. Ratio tests using all tap settings.
  8. Polarity and phase relation tests.
  9. Induced potential tests.
  10. Full wave and reduced wave impulse test.
- B. The manufacturer shall provide certification for all design and other tests listed in Table 17 of ANSI C57.12.00 including verification that the design has passed Short Circuit Criteria per ANSI C57.12.00 and C57.12.90.
- C. One PDF copy of the factory Certified Test Report of each test, in ANSI C57.12.37 format, shall be delivered to the Engineer for review and acceptance prior to shipment of the transformers.

#### **3.2 SHIPPING**

- A. The transformers shall be shipped complete and fully assembled.
- B. The transformers shall be packaged to protect from damage during shipment, handling and storage. Each transformer shall be fastened to a pallet to allow loading and unloading with a forklift.
- C. The exterior of each shipping unit shall clearly identify the contents.

**END OF SECTION**

## APPENDIX B – FEDERAL ASSURANCES

Because this contract is funded with federal funds, the following contract provisions shall apply, where applicable, to all work performed on the contract by the contractor's own organization and by subcontractors. As provided in this Section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions and further require their inclusion in any lower tier subcontracts or purchase orders that may in turn be made. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all applicable Required Contract Provisions.

### B.1 BREACHES AND DISPUTE RESOLUTION.

**Contracts in excess of \$250,000.** Any dispute arising under this Contract which is not disposed of by mutual agreement shall be resolved in accordance with 2 AAC 108.915.

### B.2 TERMINATION.

**Contracts in excess of \$10,000.** This Contract may be terminated by either party upon 10 days written notice if the other party fails substantially to perform in accordance with its terms through no fault of the party initiating the termination ("Default Termination"). If the Authority terminates this agreement, the Authority will pay the Contractor a sum equal to the percentage of Work completed that can be substantiated either by the Contractor to the satisfaction of the Authority, or by the Authority. If the Authority becomes aware of any non-conformance with the Work or this agreement by the Contractor, the Authority will promptly notify the Contractor in writing of the non-conformance. Should the Contractor's Work remain in non-conformance after having received written notification, the percentage of total compensation attributable to the non-conforming Work may be withheld. The Authority may at any time suspend or terminate ("Convenience Termination") this Agreement for its needs or convenience with or without cause upon written notice. In the event of a Convenience Termination, the Contractor will be compensated for all authorized Work and authorized expenditures performed to the date of receipt of written notice of termination plus reasonable expenses. No fee or other compensation will be due for any incomplete portion of the Work.

### B.3 EQUAL EMPLOYMENT OPPORTUNITY.

Except as otherwise provided under [41 CFR Part 60](#), **all construction contracts** must include, and all contractors and subcontractors must comply with, the equal opportunity clause provided under [41 CFR 60-1.4\(b\)](#), in accordance with Executive Order 11246, "Equal Employment Opportunity" ([30 FR 12319](#), [12935](#), [3 CFR Part, 1964-1965](#) Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at [41 CFR part 60](#), "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

### B.4 DAVIS-BACON ACT, AS AMENDED ([40 U.S.C. 3141-3148](#)).

**Construction contracts in excess of \$2,000** are required to comply with the Davis-Bacon Act ([40 U.S.C. 3141-3144](#), and [3146-3148](#)) as supplemented by Department of Labor regulations ([29 CFR Part 5](#), "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must pay wages not less than once a week. **A copy of the current prevailing wage determination issued by the Department of Labor is included in this solicitation.** Contract and subcontract awards must be conditioned upon the acceptance of the wage determination. All suspected or reported violations must be reported to the Federal awarding agency.

**B.5 COPELAND “ANTI-KICKBACK” ACT ([40 U.S.C. 3145](#))**

**Construction contracts in excess of \$2,000** are required to comply with the **Copeland “Anti-Kickback” Act ([40 U.S.C. 3145](#))**, as supplemented by Department of Labor regulations ([29 CFR Part 3](#), “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). Each contractor or subrecipient is prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. All suspected or reported violations must be reported to the Federal awarding agency.

**B.6 CONTRACT WORK HOURS/SAFETY STANDARDS ACT ([40 U.S.C. 3701-3708](#)).**

**Construction contracts in excess of \$100,000** that involve the employment of mechanics or laborers are required to comply with [40 U.S.C. 3702](#) and [3704](#), as supplemented by Department of Labor regulations ([29 CFR Part 5](#)). Under [40 U.S.C. 3702](#) of the Act, each contractor is required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of [40 U.S.C. 3704](#) are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

**B.7 RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT.**

If the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of [37 CFR Part 401](#), “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

**B.8 CLEAN AIR ACT ([42 U.S.C. 7401-7671Q](#).) AND THE FEDERAL WATER POLLUTION CONTROL ACT ([33 U.S.C. 1251-1387](#)), AS AMENDED**

**Contracts in excess of \$150,000** are required to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act ([42 U.S.C. 7401-7671q](#)) and the Federal Water Pollution Control Act as amended ([33 U.S.C. 1251-1387](#)). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

**B.9 DEBARMENT AND SUSPENSION (EXECUTIVE ORDERS 12549 & 12689)**

A contract award **greater than or equal to \$25,000** (see [2 CFR 180.220](#)) must not be made to parties listed on the government wide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at [2 CFR 180](#) that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” **Contractors that apply or bid for an award exceeding \$25,000 must sign and submit the attached “Debarment” certification with their bid.**

**B.10 BYRD ANTI-LOBBYING AMENDMENT ([31 U.S.C. 1352](#))**

Each contractor and subcontractor must certify that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or

employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by [31 U.S.C. 1352](#). Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Disclosures shall be forwarded from tier to tier up to the Authority. **Contractors that apply or bid for an award exceeding \$100,000 must sign and submit the attached “Lobbying” certification with their bid.**

### **B.11 PROCUREMENT OF RECOVERED MATERIALS.**

A state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at [40 CFR part 247](#) that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, **where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded \$10,000**; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

### **B.12 PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.**

Contractors and subcontractors are prohibited from entering into a contract (or extending or renewing a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in [Public Law 115-232](#), section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities). See [§ 200.216](#).

### **B.13 DOMESTIC PREFERENCES FOR PROCUREMENTS.**

As appropriate and to the extent consistent with law, and to the greatest extent practicable, Contractor’s are required to provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all contracts and purchase orders for work or products under this award. See [§ 200.322](#).

The federal funding for this project is subject to the Build America, Buy America Act and therefore this purchase must comply with Buy America Preferences for Infrastructure Projects, [2 CFR 184](#). See Appendix C Build America, Buy America Preferences. Note that the quote must include the Build America, Buy America Certificate at the end of this section.



**DEBARMENT, SUSPENSION, INELIGIBILITY & VOLUNTARY EXCLUSION – 2 CFR 200.214; Executive Orders 12549 and 12689** [Applicable to all federally assisted contracts which exceed \$25,000]**Instructions for Certification:**

1. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective contractor and lower tier participants knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Authority may pursue available remedies, including suspension and/or debarment.
2. The prospective contractor and lower tier participants shall provide immediate written notice to the Authority if at any time the prospective contractor and lower tier participants learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
3. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "persons," "lower tier covered transaction," "principal," "proposal," and voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Orders [12549](#) and 12689. You may contact the Authority for assistance in obtaining a copy of those regulations.
4. The prospective contractor and lower tier participants agrees by submitting this bid or proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized in writing by the Authority.
5. The prospective contractor and lower tier participants further agrees by submitting this bid or proposal that it will require the language of this certification be included in all subcontracts and all lower tier participants shall certify compliance with this requirement.
6. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Non-procurement List issued by U.S. General Service Administration.
7. Nothing contained in the foregoing shall be construed to require establishment of system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
8. Except for transactions authorized under Paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to all remedies available to the Federal Government, the Authority may pursue available remedies including suspension and/or debarment.

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transaction**

(1) The prospective contractor and lower tier participants certifies, by submission of this bid or proposal, that neither it nor its "principals" is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) When the prospective contractor and lower tier participants is unable to certify to the statements in this certification, such prospective participant shall attach an explanation to this proposal.

The Contractor, \_\_\_\_\_ certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 2 CFR §180 apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official: \_\_\_\_\_

Name and Title of Contractor's Authorized Official: \_\_\_\_\_

Date: \_\_\_\_\_

**BUILD AMERICA, BUY AMERICA ACT PREFERENCES FOR INFRASTRUCTURE PROJECTS – 2 CFR 184; Executive Order 14005** [Applicable to federally assisted infrastructure contracts which exceed \$250,000]

The Contractor acknowledges that it understands the goods and services under this Agreement are funded with federal monies subject to statutory requirements known as “Build America, Buy America” that requires all of the iron and steel, manufactured products, and construction materials used in the Project to be produced in the United States (“Build America, Buy America requirements”).

The Contractor hereby represents and warrants to the Authority and the Federal Awarding Agency:

(a) the contractor has reviewed and understands the Build America, Buy America requirements,

(b) all of the iron and steel, manufactured products, and construction materials used in the Project will be produced in the United States in a manner that complies with the Build America, Buy America requirements, unless a waiver of the requirements is approved, and

(c) the Contractor will provide any further verified information, certification or assurance of compliance with this paragraph, or information necessary to support a waiver of the Build America, Buy America requirements, as may be requested by the Authority or the Federal Awarding Agency.

Notwithstanding any other provision of this Agreement, any failure to comply with these requirements by the Contractor shall permit the Authority to recover as damages against the Contractor any loss, expense, or cost (including without limitation attorney’s fees) incurred by the Authority resulting from any such failure or any damages owed to the Federal Awarding Agency by the Authority. Neither this paragraph (nor any other provision of this Agreement necessary to give this paragraph force or effect) shall be amended or waived without prior written consent of the Authority.

The Contractor, \_\_\_\_\_ certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 2 CFR §184 apply to this certification and disclosure, if any.

Signature of Contractor’s Authorized Official: \_\_\_\_\_

Name and Title of Contractor’s Authorized Official: \_\_\_\_\_

Date: \_\_\_\_\_

End of Federal Assurances

**ALASKA ENERGY AUTHORITY  
SECTION 00 90 10  
BUILD AMERICA, BUY AMERICA ACT  
PREFERENCES FOR INFRASTRUCTURE PROJECTS**

**Build America, Buy America (BABA) requirements are promulgated under 2 CFR 184. The Build America, Buy America Act Preference requirements described herein are paraphrased from 2 CFR 184. Following is a link to 2 CFR 184:**

<https://www.ecfr.gov/current/title-2/subtitle-A/chapter-I/part-184>

**The Office of Management and Budget issued Memo M-24-02, which provides additional guidance on the application of Preference requirements:**

<https://www.whitehouse.gov/M-24-02-Buy-America-Implementation-Guidance-Update>

#### **184.1 Build America, Buy America Act Requirement**

All iron, steel, manufactured products, and construction materials incorporated into the Project shall be produced in the United States, as set forth in part I of subtitle A, Buy America Sourcing Preferences, of the Build America, Buy America Act included in the Infrastructure Investment and Jobs Act (Pub. L. 117-58) at division G, title IX, subtitle A, part I, sections 70911 through 70917.

#### **184.2 Not Used**

#### **184.3 Definitions**

**Component** means an article, material, or supply, whether manufactured or unmanufactured, that is incorporated directly into a manufactured product or an iron or steel product.

**Construction materials** means articles, materials, or supplies that consist of only one of the below listed items. To the extent one of the below listed items contains other listed items in this paragraph, it is nonetheless a construction material.

- A. The listed items are:
1. Non-ferrous metals;
  2. Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);
  3. Glass (including optic glass);
  4. Fiber optic cable (including drop cable);
  5. Optical fiber;
  6. Lumber;
  7. Engineered wood;
  8. and Drywall.

**Iron or steel products** means articles, materials, or supplies that consist wholly or predominantly of iron or steel or a combination of both.

**Manufactured products** means:

- A. Articles, materials, or supplies that have been:
  1. Processed into a specific form and shape; or
  2. Combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies.
- B. If an item is classified as an iron or steel product, a construction material, or a section 70917(c) material under 184.4 and the definitions set forth in this section, then it is not a manufactured product. However, an article, material, or supply classified as a manufactured product under 184.4 and paragraph (1) of this definition may include components that are construction materials, iron or steel products, or section 70917(c) materials

**Section 70917 (c) materials** means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives.

**Manufacturer** means the entity that performs the final manufacturing process that produces a manufactured product.

**Predominantly of iron or steel or a combination of both** means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product *and a good faith estimate of the cost of iron or steel components*

**Produced in the United States** means:

- A. In the case of iron or steel products, all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
- B. In the case of manufactured products:
  1. The product was manufactured in the United States; and
  2. The cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product. The costs of components of a manufactured product are determined in accordance with 184.5.
- C. In the case of construction materials, all manufacturing processes for the construction material occurred in the United States. *See 184.6 for more information on the meaning of "all manufacturing processes" for specific construction materials.*

#### **184.4 Applying the Build America, Buy America Act Preference.**

*Categorization of articles, materials, and supplies.*

An article, material, or supply incorporated into an infrastructure project shall meet the Buy America Preference for the category in which it is classified. The classification of an article, material, or supply into one of the below categories *shall be made based on its status at the time it is brought to the work site for incorporation into an infrastructure project.*

- A. An article, material, or supply shall be classified into one of the following categories:

1. Iron or steel products;
2. Manufactured products;
3. Construction materials; or
4. Section 70917(c) materials.

#### **184.5 Determining the cost of components for manufactured products.**

In determining whether the cost of components for manufactured products is greater than 55 percent of the total cost of all components, the following applies:

- A. **For components purchased by the manufacturer**, the acquisition cost, including transportation costs to the place of incorporation into the manufactured product (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or
- B. **For components manufactured by the manufacturer**, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (a) of this section, plus allocable overhead costs, *but excluding profit. Cost of components does not include any costs associated with the manufacture of the manufactured product.*

#### **184.6 Construction materials**

- A. The Build America, Buy America Act Preference applies to the following construction materials incorporated into infrastructure projects. Each construction material is followed by a standard for the material to be considered “produced in the United States.” Except as specifically provided, only a single standard under this section should be applied to a single construction material.
  1. Non-ferrous metals. All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
  2. Plastic and polymer-based products. All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
  3. Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
  4. Fiber optic cable (including drop cable). All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
  5. Optical fiber. All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
  6. Lumber. All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
  7. Drywall. All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels,

occurred in the United States.

8. Engineered wood. All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

**184.7 Build America, Buy America Act Preference waivers.**

- A. A Federal agency may waive the application of the Build America, Buy America Act Preference in any case in which it finds that:
  1. Applying the Build America, Buy America Act Preference would be inconsistent with the public interest (a “public interest waiver”);
  2. Types of iron, steel, manufactured products, or construction materials are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality (a “nonavailability waiver”); or
  3. The inclusion of iron, steel, manufactured products, or construction materials produced in the United States will increase the cost of the overall infrastructure project by more than 25 percent (an “unreasonable cost waiver”).
- B. *Requesting a waiver.* Recipients may request waivers from a Federal agency if the recipient reasonably believes a waiver is justified under paragraph (a) of this section. A request from a recipient to waive the application of the Build America, Buy America Act Preference must be provided to the Federal agency in writing. Federal agencies must provide waiver request submission instructions and guidance on the format, contents, and supporting materials required for waiver requests from recipients.
- C. Existing waiver(s) applicable to this Project.

The Federal Awarding Agency this project (Denali Commission) has issued the following General Applicability Waiver of Build America, Buy America Act Preferences:

[De Minimis Infrastructure Project Purchases, Small Grants, and Minor Components within Iron and Steel Products](#)

The *De Minimis Project Purchases* waiver is applicable to this Project, which states:

5% of the total costs for iron and steel, manufactured products and construction materials subject to the Build America, Buy America Act preference is exempt from the Buy America preference requirement.