



# City and Borough of Sitka

## Electric Department

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[www.cityofsitka.com](http://www.cityofsitka.com)

Robert E. Dryden, P.E., System Engineer, (907)747-1885

15 June 2010

Chris Brewton, Director  
Electric Dept.

REF: Purchase of Replacement Transformer for Medvijie Substation

The Assembly has approved a budget transfer to fund an upgrade of the Medvijie Substation which feeds the Hatchery. The project has been assigned the number 90672.

Within the cost estimate provided to the assembly, the transformer was estimated to cost \$130,000 FOB Seattle. The attached final price quote from Virginia Transformer is for \$125,000 FOB Seattle. The process of selecting this bidder is described in the material furnished to the Assembly. Virginia Transformer was the only firm to respond to this request for an unusually small, high quality, substation class transformer. Virginia Transformer has successfully provided several large substation transformers to the City in the last 12 years. This is an excellent price and far less than rebuilding the units we have.

I have worked directly with the manufacturer on details such as metals used, paint quality, overall materials, etc. to assure that we are provided a very long lasting and reliable unit.

I attach a purchase request for this transformer. It is essential to get it ordered so that we can get this substation upgraded by this fall.

Robert E. Dryden P.E.  
CC:

Virginia Transformer Corporation  
 220 Glade View Drive, NE  
 Roanoke, VA 24012

**PROPOSAL - T102301A**

|   |  |                        |
|---|--|------------------------|
| <b>Date:</b> 6/14/2010  | <b>Revision:</b> 0   | <b>Date:</b> 6/14/2010 |
| <b>To:</b> ROBERT DRYDEN<br>CITY AND BOROUGH OF SITKA<br>100 LINCOLN ST.<br>SITKA, AK 99835 | <b>Phone:</b> 907-747-1885<br><b>Fax:</b> 907-747-3208<br><b>Email:</b> robertdryden@CityofSitka.com     |                        |
| <b>From:</b> Tom Aikens<br>Virginia Transformer Corp.                                       | <b>Phone:</b> 208-238-0720 ext. 222<br><b>Fax:</b> 208-238-9810<br><b>Email:</b> tom_aikens@vtcucorp.com |                        |
| <b>CC:</b>  |  |                        |
| <b>Subject:</b> T102301A  |  |                        |

Virginia Transformer Corp is pleased to submit the following proposal.

Virginia Transformer Corp. (VTC) custom designs and manufactures liquid-filled transformers ranging from 300KVA to 300MVA, 230 kV class and dry-type transformers including Uniclad® encapsulated coil types up to 15MVA, 35kV class. VTC offers load tap changing transformers, drive isolation and rectifier-duty transformers, distribution control packages and other associated electrical equipment for Utility, Heavy Industry, Contractor and Distributors, Transit Systems, Engineering and Construction, and OEMs around the world. Established in Roanoke, Va., in 1971, VTC has design and manufacturing facilities in Roanoke, VA; Pocatello, ID; Chihuahua, Mexico; and design and procurement capabilities in Mumbai, India – establishing VTC’s world-wide presence as a supplier of transformer solutions. VTC reserves the right to manufacture product quoted herein at any of these plants.

This proposal is Virginia Transformer’s complete understanding of the specification requirements provided, and is the basis for acceptance of any resulting orders. The table below describes the salient ratings of the transformer(s) in this proposal:

**COMMON FEATURES**

| ITEM #1             | Type II Mineral L - Large Oil Power Dist.    | QUANTITY 1  |
|---------------------|--|---|
| KVA                 | 2000   | Application<br>Power Dist.                                  |
| Cooling Class       | ONAN   | Avg Winding Temp Rise<br>65°C                               |
| # Phases            | 3  | Dielectric Fluid<br>Type II Mineral                         |
| Frequency (Hertz)   | 60   | Conductor Material<br>Copper                                |
| HV Rating (V)       | 69000 Delta                                  | LV Rating (V)<br>12470GrdY/7200                             |
| HV Taps             | 2 FCAN, 2 FCBN @ 2.5%                        | Nom. Impedance<br>8.0% +7.5% at 2000 KVA                    |
| HV BIL (kV)         | 350  | LV BIL (kV)<br>110  |
| HV Bushing Mounting | Segment III, Cover Mtd                       | LV Bushing Mounting<br>Segment II, Bottom Exit              |
| HV Terminal Chamber |  | LV Terminal Chamber<br>Full ATC                             |
| Radiators           | Removable w/ valves<br>Hot-dipped Galvanized | Paint Color / Type<br>61 / IV URETHANE OVER ZINC RICH EPOXY |
| Losses              | VTC Std.                                     | Coil Type<br>Circular                                       |

**Tank Construction:** Liquid Filled Transformer, Sealed Tank Construction w/ Welded Top Cover and Nitrogen Preservation System; Provisions for Jacking, Skidding, Lifting; Diagrammatic Nameplate; (2) Stainless Steel Ground Pads Welded to Base on Diagonally Opposite Corners; Manhole w/ Gasketed Cover; De-energized, Manual No-Load Tap Changer; Panel-type Radiators; Cooling Fans if Forced-air Cooling is Proposed.

**Gauges & standard fixtures**

|                                      |
|--------------------------------------|
| Liquid Temperature Gauge W/ Contacts |
| Pressure Vacuum Gauge W/ Bleeder     |
| Liquid Level Gauge W/ Contact        |
| Pressure Relief Device               |

**Arresters**

| Location | Type | KV Class | MCOV | Manufacturer |
|----------|------|----------|------|--------------|
| HV       | SC   | 60 *     | 48 * | VTC Standard |

\* Note – Customer to confirm arrester ratings at time of order.

**Ambient Conditions**

|                     |                         |
|---------------------|-------------------------|
| Ambient Temperature | Ambient -20/30AV/40 Max |
| Seismic Zone        | Seismic Z3 & Z4         |
| Altitude            | Altitude < 3300 Ft      |

**Testing**

|                  |
|------------------|
| Routine per ANSI |
|------------------|

**Shipping and Handling**

|                                    |  |
|------------------------------------|--|
| Total estimated weight of the unit | ( 34,000 ) Lbs   |
| Shipping weight                    | ( 34,000 ) Lbs   |
| Over all dimensions estimated      | Width( 138 ) Inches, Depth( 120 ) Inches, Height( 165 ) Inches |
| Shipping dimensions estimated      | Width( 168 ) Inches, Depth( 120 ) Inches, Height( 126 ) Inches |
| Parts shipped separate             | HV Bushings & HV Arresters                                     |

**Value Added Service Options**

|  |                    |
|--|--------------------|
| LV 200 Amp Bushing Wells provided to accept Customer's 200 Amp Load Break Elbows   | Included           |
| HV Bushings ABB Type O Plus C (ABB Part No. 069Z0412AN) or approved equal          | Included           |
| Unit designed for Full Vacuum filling  | Included           |
| Nitrogen Preservation System w/ regulators & controls located in painted enclosure | Included           |
| Unpainted Stainless Steel Control Cabinet provided                                 | Included           |
| External Stainless Steel Hardware provided   | Included           |
| Standard Warranty 12/18 Months   | Included           |
| VTC Final As-Built Package (FABP)  | With Order         |
| Final as-built Drawings  | With FABP          |
| Operation & Maintenance Manual   | With Shipment/FABP |
| Catalog cuts for components  | With Drawings/FABP |
| Spare parts price list for five-year operation                                     | With FABP          |

**Shipping Schedule: 12-14 weeks A.R.O.**

Quotation is valid until 7/9/2010 and for shipment by 10/29/2010.

|  |                            |
|--|----------------------------|
| ITEM # 1   | QUANTITY: 1                |
| Unit Price: \$125,000  | Total Price: \$125,000     |
| F.O.B. El Paso, TX; Freight Prepaid & Allowed to Port of Seattle, WA | Payment Terms: NET 30 DAYS |

Payment terms (subject to credit approval):  
100% invoiced at time of shipment, Net 30 days.

The Firm price offer is for shipment by October 29, 2010 and order by July 9, 2010. If shipment is delayed for customer reason, VTC Price Adjustment policy will apply with base Index of October 2010 and the final index will be that of the month of shipment. In any case, the validity of Index Price offer expires 12 months from the date of original proposal.