

WABASH VALLEY POWER ASSOCIATION

d/b/a Wabash Valley Power Alliance



Wabash Valley
POWER ALLIANCE

Transmission Engineering Services

Approved Contractors

And

Major Equipment Vendors

Original Document – Effective Date: 12-18-2020

All Revisions to this document will be tracked in the Revision Tracking Matrix and the document will be re-approved.

Description: List of current approved contractors and major-equipment vendors for use on WVPA Transmission Projects in the PJM Region.

Approval: Jason L Marshall
Jason Marshall
EVP Transmission & Regulatory Affairs

6-8-21
Date

1.0 Purpose

This document provides the list of Wabash Valley Power Association (WVPA) currently approved contractors and major-equipment vendors that provide materials and services. This list is intended to be used by Interconnection Customers exercising an option to build transmission facilities as part of an Interconnection Project in the PJM Region.

This list will be updated as needed relative to a change in or addition of a contractor once the bid has been awarded. Approved Vendors are subject to change. Therefore, customers should contact the WVPA Manager, Transmission and Substation Engineering to review the most up-to-date list.

2.0 Requirements for Transmission-Connected Facilities to be Owned and Operated by WVPA or owned by WVPA and operated by another entity under contract with WVPA.

Additional WVPA equipment specifications will apply based upon the scope and physical location of the project. Please contact the WVPA Manager, Transmission and Substation Engineering for any updates prior to procurement. Please note that detailed standards, terms and conditions, specifications, and warranty terms are available upon request as appropriate based upon current agreements

3.0 Approved Option to Build Contractors

3.1 Station and Transmission Line Engineering & Design Contractors

| |
|---|
| Black and Veatch Corporation |
| Burns and McDonnell Engineering Company |
| Commonwealth Associates Inc. |
| HDR Engineering, Inc. |
| Kiewit Engineering Group, Inc. |
| Power Engineers, Inc. |
| Sargent and Lundy, LLC |
| TRC Engineers, Inc. |

3.2 Substation Construction Contractors

| |
|-----------------------------------|
| Energis, Inc. |
| Irby Construction Company |
| Kent Power |
| The LE Myers Company |
| Michels Corporation |
| Newkirk Electric Associates, Inc. |
| PAR Electrical Contractors |
| Vaughn Industries LLC |

3.3 Transmission Line Construction Contractors

| |
|--------------------------------|
| Irby Construction Company |
| Linetec Services |
| Michels Corporation |
| PAR Electrical Contractors Inc |
| Vaughn Industries LLC |

3.4 Grading/Site Prep/Access Road Contractors

| |
|---|
| BC Excavating Inc. |
| The Beaver Excavating Company |
| Bobcat Heavy Civil, LLC |
| Cecil Goodwin Inc d/b/a Good-One Excavating |
| Cobalt Civil LLC |
| Independence Excavating Inc. |
| Kokosing Industrial Inc. |
| Kwest Group LLC |
| Liberty Management Inc. |
| Newpark Mats and Integrated Services |
| The Great Lakes Construction Company |
| Zemba Brothers |

3.5 Protection and Control Field Testing and Commissioning Contractors

| |
|---|
| Alpha Relay and Protection Testing LLC |
| Black and Veatch |
| Burns and McDonnell |
| Electric Power Systems International Inc. |
| ECI-EPC Services Company |
| High Voltage Maintenance Corporation |
| Potomac Testing (EMT) |
| Power Grid Engineering Inc. |
| Premier Power Maintenance Corporation |
| Shermco Industries |
| TRC Companies Inc. |

Developer must ensure that contractors are qualified for this work.

4.0 Approved Vendors for Major Equipment

4.1 Substation Equipment

4.1.1 Switches

4.1.1.1 Center Break: 15kV-230kV

| Vendor | Approved Factory Locations |
|-----------------------------|----------------------------|
| Pascor Atlantic Corporation | Bland, VA |
| Hubbell Power Systems, Inc. | Leeds, AL |
| Southern States | Hampton, GA |

4.1.1.2 Center Break: 345kV

| Vendor | Approved Factory Locations |
|-----------------------------|----------------------------|
| Pascor Atlantic Corporation | Bland, VA |
| Southern States | Hampton, GA |

4.1.1.3 Double-End Break: 230kV-500kV

| Vendor | Approved Factory Locations |
|-----------------------------|----------------------------|
| Alstom Grid LLC | Noventa di Plave, Italy |
| Pascor Atlantic Corporation | Bland, VA |
| Southern States | Hampton, GA |

4.1.1.4 Mega-Switch (Phase to Phase Clearance): 138kV-765kV

| Vendor | Approved Factory Locations |
|-----------------|----------------------------|
| Alstom Grid LLC | Noventa di Plave, Italy |

4.1.1.5 Semi-Pantograph: 345kV-765kV

| Vendor | Approved Factory Locations |
|-----------------|----------------------------|
| Alstom Grid LLC | Noventa di Plave, Italy |

4.1.1.6 Vertical Break 69kV-161kV

| Vendor | Approved Factory Locations |
|-----------------------------|----------------------------|
| Hubbell Power Systems | Leeds, AL |
| Pascor Atlantic Corporation | Bland, VA |
| Southern States | Hampton, GA |

4.1.1.7 Vertical Break: 765kV

| Vendor | Approved Factory Locations |
|-----------------------------|----------------------------|
| Alstom Grid LLC | Noventa di Plave, Italy |
| Pascor Atlantic Corporation | Bland, VA |

4.1.2 Arrestors

| Vendor | Approved Factory Locations | Comment |
|--------------------------|----------------------------|-----------|
| ABB Inc. | Crystal Springs, MS | All kV |
| Cooper Power Systems LLC | Orlean, NY | 4kV-230kV |
| Siemens Industry Inc. | Berlin, Germany | All kV |

4.1.3 Capacitor Banks

| Vendor | Approved Factory Locations |
|--------------------------|----------------------------|
| Cooper Power Systems LLC | Orlean, NY |
| GE Grid Solutions LLC | Clearwater, FL |

4.1.4 CCVTs

| Vendor | Approved Factory Locations |
|--------------------------------------|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Trench Limited | Pickering, ON, Canada |
| Pfiffner Instrument Transformers LTD | Hirschthal, Switzerland |

4.1.5 Circuit Breakers

4.1.5.1 Circuit Breakers: 69kV, 40kA

| Vendor | Approved Factory Locations |
|--|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.2 Circuit Breakers: 138kV, kA All

| Vendor | Approved Factory Locations |
|--|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.3 Circuit Breakers: 170kV, KA All

| Vendor | Approved Factory Locations |
|--|----------------------------|
| ABB Inc | Mount Pleasant, PA |
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.4 Circuit Breakers: 230kV 50kA

| Vendor | Approved Factory Locations |
|----------------------|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |

4.1.5.5 Circuit Breakers: 345kV 80kA

| Vendor | Approved Factory Locations |
|--|----------------------------|
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.6 Circuit Breakers: 345kV 50/63kA

| Vendor | Approved Factory Locations |
|--|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.7 Circuit Breakers: 500kV

| Vendor | Approved Factory Locations |
|--|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |
| Siemens Industry Inc | Jackson, MS |
| Mitsubishi Electric Power Products Inc | Warrendale, PA |

4.1.5.8 Circuit Breakers: 765kV

| Vendor | Approved Factory Locations |
|--|------------------------------------|
| HICO America Sales & Technology Inc | Changwon, South Korea |
| Hitachi T&D Solutions Inc. | Suwanee, GA Hitachi City, Japan |
| Mitsubishi Electric Power Products Inc | Warrendale, PA Itami, Japan |

4.1.5.9 Circuit Breakers: 765kV Reactor

| Vendor | Approved Factory Locations |
|-----------------|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |

4.1.6 Circuit Switchers

4.1.6.1 Capacitor Switching

| Vendor | Approved Factory Locations | Comments |
|---------------------------|----------------------------|----------|
| Alstom Grid LLC | Waynesboro, GA | 145kV |
| Hitachi T&D Solutions Inc | Suwanee, GA | 161kV |
| Southern States LLC | Hampton, GA | 345kV |

4.1.6.2 Transformer Switching: 69kV-138kV

| Vendor | Approved Factory Locations |
|-----------------|----------------------------|
| Alstom Grid LLC | Waynesboro, GA |

4.1.7 GIS (Gas-Insulated Switchgear)

| Vendor | Approved Factory Locations |
|--|----------------------------|
| ABB inc. | Not specific |
| Mitsubishi Electric Power Products Inc | Not specific |

4.1.8 Line Traps

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| GE Grid Solutions LLC | Itajuba, MG, Brazil |
| Trench Limited | Scarborough, ON, Canada |

4.1.9 Instrument Transformers

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| ABB Inc. | Crystal Springs, MS |
| GE Grid Solutions LLC | Waynesboro, GA |

4.1.10 Power Transformers

4.1.10.1 Small: 69kV and Below Primary Voltage

| Vendor | Approved Factory Locations |
|---------------------------------|---------------------------------|
| ABB Inc. | Crystal Springs, MS |
| Delta-Star Inc. | Lynchburg, VA San Carlos, CA |
| GE Prolec Transformers Inc. | Monterrey, Mexico |
| SPX Transformer Solutions, Inc. | Goldsboro, NC |

4.1.10.2 Medium: 138kV Primary Voltage, 50MVA and Below

| Vendor | Approved Factory Locations |
|---------------------------------|---|
| ABB Inc. | Crystal Springs, MS South Boston, VA |
| Delta-Star Inc. | Lynchburg, VA San Carlos, CA |
| GE Prolec Transformers Inc. | Monterrey, Mexico |
| SPX Transformer Solutions, Inc. | Goldsboro, NC |

4.1.10.3 Auto Transformers: 138kV-161kV Primary Voltage, 51MVA and Above

| Vendor | Approved Factory Locations |
|---------------------------------|----------------------------|
| ABB Inc. | Crystal Springs, MS |
| Hyndal | Montgomery, AL |
| GE Prolec Transformers Inc. | Monterrey, Mexico |
| SPX Transformer Solutions, Inc. | Goldsboro, NC |

4.1.10.4 Auto Transformers: 230kV – 345kV Primary Voltage

| Vendor | Approved Factory Locations |
|---------------------------------------|----------------------------|
| HICO American Sales & Technology Inc. | Changwon, South Korea |
| SMIT | Nijmegen, Netherlands |
| GE Prolec Transformers Inc. | Monterrey, Mexico |

4.1.10.5 Auto Transformers: 500kV – 765kV Primary Voltage

| Vendor | Approved Factory Locations |
|---------------------------------------|----------------------------|
| ABB | Ludvika, Sweden |
| HICO American Sales & Technology Inc. | Changwon, South Korea |
| MEPPI | Ako, Japan |
| Siemens Industry Inc. | Weiz, Austria |
| SMIT | Nijmegen, Netherlands |

4.1.11 Reactors

4.1.11.1 Oil-Filled Reactors: 230kV-345kV

| Vendor | Approved Factory Locations |
|---------------------------------------|----------------------------|
| ABB | Ludvika, Sweden |
| HICO American Sales & Technology Inc. | Changwon, South Korea |
| Siemens Industry Inc. | Weiz, Austria |

4.1.11.2 Oil-Filled Reactors: 500kV-765kV

| Vendor | Approved Factory Locations |
|---------------------------------------|----------------------------|
| ABB | Ludvika, Sweden |
| HICO American Sales & Technology Inc. | Changwon, South Korea |

4.2 Protection and Control Equipment

4.2.1 Relay Panels

| Vendor | Approved Factory Locations |
|---|----------------------------|
| AZZ Enclosure Systems LLC | Millington, MD |
| Crown Technical Systems | Fontana, CA |
| Systems Control, a Division of Northern Star Industries, Inc. | Iron Mountain, MI |

4.2.2 Battery Systems

| Vendor | Approved Factory Locations |
|------------------------------|----------------------------|
| SBS LLC/Exponential Power | Not Specific |
| American Power Systems (APS) | Not Specific |

4.3 Other Substation Equipment

4.3.1 Control Buildings

4.3.1.1 Site-Built

| Vendor | Approved Factory Locations |
|---------------|----------------------------|
| Parkline, Inc | Eleanor, WV |

4.3.1.2 Drop-In Control Modules

| Vendor | Approved Factory Locations |
|---|--|
| AZZ Enclosure Systems LLC | Millington, MD |
| Crown Technical Systems | Fontana, MD |
| Systems Control, a Division of Northern Star Industries, Inc. | Iron Mountain, MI |
| Schweitzer Engineering Laboratories Inc. | Salem, VA – expansion units only, no base units. |

4.3.2 Insulators

4.3.2.1 Polymer: 4kV-161kV

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| Lapp Insulator | LeRoy, NY |
| Maclean Power Systems | Not specific |
| NGK-Locke Insulator | Baltimore, MD |

4.3.2.2. Porcelain: 4kV-161kV

| Vendor | Approved Factory Locations |
|----------------|-----------------------------|
| Cerisol | Vila Nova de Gaia, Portugal |
| Gamma | Sabaneta, Colombia |
| Hubbell | Suzhou, China |
| Lapp Insulator | LeRoy, NY |
| SEVES PPC | Pedreira, Brazil |

4.3.2.3 Porcelain: 230kV-765kV

| Vendor | Approved Factory Locations |
|-----------|----------------------------|
| SEVES PPC | Pedreira, Brazil |

4.3.4 Steel, Anchor Bolts, and Anchor Cages

| Vendor | Approved Factory Locations | Comments |
|---------------------------------------|--|---|
| ASC Inc. | Tulsa, OK | |
| Advance Industrial Manufacturing Inc. | Grove City, OH | |
| DIS-TRAN | Pineville, LA | Pre-Fabricated steel, equipment and bus assemblies only |
| Sabre/FWT | Fort Worth, TX | |
| Valmont Industries, INC | Tulsa, OK Valley, NE Monterrey, Mexico Columbus, NE Hazleton, PA Jasper, TN | |
| V&S Schuler | Canton, OH Muskogee, OK | |
| FABSCO | Calumet Park, IL | Anchor bolts only, no cages |

4.4 Transmission Line Equipment

4.4.1 Conductor: Bare Aluminum

| Vendor | Approved Factory Locations |
|------------------------|---------------------------------|
| General Cable/Prysmian | Willamsport, PA |
| Nehring | Dekalb, IL |
| Southwire | Carrolton, GA Hawesville, KY |

4.4.2 Conductor Hardware

4.4.2.1 Bolted Clamp

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| Hubbell Power Systems | Leeds, AL |
| Lindsey | Azusa, CA |
| Maclean Power Systems | Pelham, AL |
| Salvi | Saint Etienne, France |

4.4.2.2 Compression

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| AFL Global | Duncan, SC |
| Burndy | Manchester, NH |
| DMC Power | Gardenia, CA |
| Hubbell Power Systems | Leeds, AL |

4.4.2.3 Spacer and Armor Road

| Vendor | Approved Factory Locations |
|-------------------------|----------------------------|
| AFL Global | Duncan, SC |
| Hubbell Power Systems | Leeds, AL |
| MacLean Power Systems | Pelham, AL |
| Preformed Line Products | Rogers, AR |
| Salvi | Saint Etienne, France |

4.4.2.4 Ground Wire

| Vendor | Approved Factory Locations |
|------------------------|----------------------------|
| AFL Global | Duncan, SC |
| General Cable/Prysmian | Malvern, AR |
| Southwire | Carrolton, GA |

4.4.4 Insulators

4.4.4.1 Polymer

| Vendor | Approved Factory Locations |
|-----------------------|----------------------------|
| Hubbell Power Systems | Leeds, AL |
| Lapp | LeRoy, NY |
| Maclean Power Systems | York, SC |
| NGK-Locke | Virginia Beach, VA |

4.4.4.2 Porcelain Disc

| Vendor | Approved Factory Locations |
|--------|----------------------------|
| Lapp | LeRoy, NY |

4.4.4.3 Toughened Glass

| | |
|-----------------------------------|---------------------------------------|
| Hubbell | Segovia, Spain |
| SEVES Sediver | Shanghai, China |
| SiChuan Yibin Global Group Co LTD | Chendgu City, Sichuan Province, China |

4.4.5 Structures

4.4.5.1 Latticed Steel

| Vendor | Approved Factory Locations |
|----------|----------------------------|
| Brametal | Linhares, ES, Brazil |
| Locweld | Candiac QC Canada |
| MITAS | Ankara, Turkey |
| SAE | Monterrey, Mexico |

4.4.5.2 Tubular Steel

| Vendor | Approved Factory Locations |
|---------------------------|--|
| Mello | South Bend, IN |
| Sabre/FWT | Alvarado, TX Fort Worth, TX Hicksville, OH Sioux City, IA Bossier City, LA |
| TAPP | Guadalajara, Mexico Monclova, Mexico |
| Valmont Industries | Columbus, NE El Dorad, KS Jasper, TN Monterrey, Mexico Tulsa, OK Port of Catoosa, OK Valley, NE Brenham, TX |

4.4.5.3 Wood Poles

| Vendor | Approved Factory Locations |
|--|-----------------------------------|
| McFarland Cascade/ Stella-Jones Corporation | Not specific |

Revision Tracking Matrix

| Rev. | Description of Change(s) | Date | Revised By |
|------|-------------------------------|------------|------------|
| 0 | Original issue of document | 12/18/2020 | S. Sosbe |
| 1 | Review and update of document | 5/27/2021 | S. Sosbe |