SECTION 337173 - ELECTRICAL UTILITY SERVICES

This Section includes making arrangements with electric utility for service to building and related metering equipment, as well as other required provisions.

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Arrangements with Utility Company for permanent electric service.

Payment of Utility Company for service charges.

Utility metering equipment.

* + - * 1. Related Requirements:

List other Sections directly related to or affecting Work of this Section. Include Sections specifying information expected to be found in this Section as well as Sections required to describe complete system or assembly requirements.

Section 033000 - Cast-in-Place Concrete: Concrete pads.

* + - 1. DEFINITIONS

In following paragraph insert name of electrical utility company serving Project. Furnish name, contact person(s), address, telephone number(s), and other contact information.

* + - * 1. Utility Company: <**\_\_\_\_\_\_\_\_**>.
			1. COORDINATION
				1. Coordinate Work of this Section with Utility Company, including relocation of overhead or underground lines interfering with construction.
				2. If power lines are to be relocated, bill utility costs directly to the State.
				3. Service Installation:

Contact Utility Company regarding charges related to service installation, and include charges in Contract.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

Utility charges for service installation will be paid by the State and are not part of Contract.

* + - 1. SUBMITTALS

Only request submittals needed to verify compliance with Project requirements.

* + - * 1. Submittals for this section are subject to the re-evaluation fee identified in Article 4 of the General Conditions.
				2. Manufacturer’s installation instructions shall be provided along with product data.
				3. Submittals shall be provided in the order in which they are specified and tabbed (for combined submittals).
				4. Submit drawings prepared by Utility Company.
				5. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

Include separate paragraphs for additional certifications.

* + - * 1. Manufacturer Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.
			1. QUALITY ASSURANCE

Include this Article to specify compliance with overall reference standards affecting products and installation included in this Section.

* + - * 1. Perform Work according to Utility Company written requirements, and maintain one copy at Site.
			1. FIELD MEASUREMENTS
				1. Verify that field measurements are as indicated on [**Drawings**] [**Utility Company drawings**].
1. PRODUCTS
	* + 1. SYSTEM DESCRIPTION

Indicate system voltage to match Utility Company's nominal system voltage. This will not necessarily be identical to utilization or nameplate voltage of motors and appliances.

* + - * 1. System Characteristics: [**208Y/120**] [**120/240**] [**240**] [**480Y/277**] [**480**] <**\_\_\_\_\_\_\_\_**> V, [**single**] [**three**] phase, [**two**] [**three**] [**four**] wire, [**60**] <**\_\_\_\_\_\_\_\_**> Hz.

Consider using following paragraph as necessary to describe service entrance details in this Section rather than indicating on Drawings.

* + - * 1. Service Entrance: [**Overhead**] [**Underground**] [**Utility vault**] <**\_\_\_\_\_\_\_\_**>.
				2. Overhead Service Provisions: [**Service rack and weatherhead for overhead service drop and connection by Utility Company**] <**\_\_\_\_\_\_\_\_**>.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. Underground Service Provisions:

[**Underground service entrance to building service entrance equipment**] <**\_\_\_\_\_\_\_\_**>.

Utility Raceway Connection: At [**property line**] [**Utility Company manhole**] [**Utility Company terminal pole**] [**Utility Company pad-mounted transformer**].

Utility Service-Entrance Conductor Connection: At [**Utility Company manhole**] [**Utility Company terminal pole**] [**Utility Company pad-mounted transformer**] [**Service-entrance equipment**] [**Metering equipment**].

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. Vault Service Provisions:

Service Entrance [**Conductors**] [**Busway**]: From Utility Company vault.

Final Connections: [**Included in Contract**] [**by Utility Company**].

* + - 1. UTILITY METERS
				1. Furnished by Utility Company.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=8836&mf=04&src=wd):

GE (General Electric Company), (877) 394-9775, 5 Necco Street, Boston, MA 02210.

Siemens Industry Inc., (770) 453-3400, 5405 Metric Pl, Norcross, GA 30092.

Square D, A Schneider Electric Company, (518) 862-2750, 501 New Karner Rd., Suite 5, Albany, NY, 12205.

Approved equivalent.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Description: Self-contained watt-hour meter [**with demand attachment**], rated [**200**] [**320**] A at [**120/240 V, single phase**] [**208Y/120 V, three phase**].

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. Description: <**\_\_\_\_\_\_\_\_**>.
			1. UTILITY METER BASE
				1. Furnished by Utility Company.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=8837&mf=04&src=wd):

Siemens Industry Inc., (770) 453-3400, 5405 Metric Pl, Norcross, GA 30092.

Square D, A Schneider Electric Company, (518) 862-2750, 501 New Karner Rd., Suite 5, Albany, NY, 12205.

Hubbell Wiegmann, (618) 539-3193, 501 W. Apple St., Freeburg, IL 62243.

Approved equivalent.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Description:

Meter base rated at [**200**] [**320**] A continuous duty, with [**four**] [**five**] [**seven**] jaws.

Circuit Closing Type: [**Non-automatic**] [**Automatic**] [**Manual**].

Bypass Type: [**Horn**] [**Lever**] [**Screw**] [**Manual slide**].

* + - 1. METERING TRANSFORMER CABINET
				1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=8838&mf=04&src=wd):

American Midwest Power, (800) 328-8658, 3131 Vicksburg Lane, Plymouth, MN 55447.

Erickson Electric, (800) 952-7225, 475 Bonnie Lane, Elk Grove Village, IL 60007.

Galva-Closure Products Co., (608) 873-3044, 1236 East St. Stoughton, WI 53589.

Approved equivalent.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Size: <\_\_\_\_\_\_\_\_> by <\_\_\_\_\_\_\_\_> by <\_\_\_\_\_\_\_\_> inches
				2. Include provisions for padlocking and sealing.
			1. OVERHEAD SERVICE RACK
				1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=8839&mf=04&src=wd):

Legrand LLC., (860) 233-6251, 60 Woodlawn St., West Hartford, CT 06110.

Hubbell Utility Solutions, (855) 477-2121, 210 N Allen St., Centralia, MO 65240.

Approved equivalent.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Rack Type: Porcelain insulator.
			1. TRANSFORMER PAD
				1. [Manufacturers](http://www.specagent.com/LookUp/?ulid=8840&mf=04&src=wd):

Old Castle Infrastructure, (303) 791-1100, 8392 Riverview Parkway, Littleton, CO 80125

Fort Miller Co., (518) 695-5000, P.O. Box 98, Schuylerville, NY 12871

Approved equivalent.

Insert descriptive specifications below to identify Project requirements and to eliminate conflicts with products specified above.

* + - * 1. Material: [**Fiberglass-reinforced plastic**] [**Cast-in-place concrete as specified in Section 033000 - Cast-in-Place Concrete**] [**Precast concrete**].
				2. Size: As indicated on Drawings.
				3. [**Furnish cable pit.**]
1. EXECUTION
	* + 1. EXAMINATION
				1. Verify that service equipment is ready to be connected and energized.
			2. PREPARATION
				1. Remove exposed abandoned service entrance raceway and conductors[**, including abandoned components above accessible ceiling finishes**].
				2. Cut raceway flush with walls and floors, and patch surfaces.
				3. Disconnect and remove abandoned service equipment.
				4. Maintain access to existing service equipment, boxes, metering equipment, and other installations remaining active and requiring access, by modifying installation or by providing access panel.
				5. Extend existing service installations using materials and methods [**compatible with existing electrical installations, or**] as specified.
				6. Clean and repair existing service equipment to remain or to be reinstalled.
			3. INSTALLATION

Consider including first following paragraph for overhead services, second following paragraph for underground services, and third following paragraph for vault services.

* + - * 1. Service Rack and Weatherhead:

Install at height according to Utility Company requirements.

Install drip loop in service conductors.

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. Service Entrance Conduits:

Install service entrance conduits to building service entrance equipment.

[**Utility Company will connect service lateral conductors to service entrance conductors**] [**Connect service lateral conductors to service entrance conductors**].

\*\*\*\*\*\* [OR] \*\*\*\*\*\*

* + - * 1. [**Busway**] [**Conductors**]:

Install from Utility Company's vault to building service entrance equipment.

[**Utility Company will connect service lateral conductors to service entrance busway**] [**Connect service lateral conductors to service entrance busway**].

Consider using following paragraph if a cast-in-place pad is required.

* + - * 1. Install cast-in-place concrete pad for Utility Company transformer, as specified in Section 033000 - Cast-in-Place Concrete.

END OF SECTION 337173