

# APPLICATION FOR SERVICE

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## REQUEST FOR SERVICE

Customers contemplating new meter installations or relocations shall contact the APS business office in that city or area for an approved service and meter location prior to proceeding with any electrical installation. By following this procedure, the Customer will eliminate inconvenience and delays in obtaining service by having to make unnecessary service entrance relocations or pay the expense incurred by APS for additional facilities to serve unauthorized meter locations.

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### 200.1 REQUIRED INFORMATION

Each prospective customer desiring new service and/or a change in existing service must make application for the same with APS. Consult Page "B" and "C" (in front of book) for the address and telephone number of the APS office in your area. The customer must provide the following information.

1. Applicant's name.
2. Property owner's name.
3. Official street address and the complete legal description of the property to be served.
4. Type of structure or facilities to be served. Square footage of building.
5. Site plans and building plans showing desired meter location.
6. The estimated loads - voltage and phase desired.
7. Type of cooling/heat.
8. Credit information.

**It is suggested that the necessary information be submitted to APS as early in the development process as possible to assure meeting the customer's completion schedule.**

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### 200.2 NORMAL SEQUENCE OF EVENTS

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#### 200.2-1 NEW SERVICE

1. **Customer** provides sufficient notice of intent to build. Large projects tend to require longer lead times.
2. **Customer** provides preliminary information during planning stage.



3. **Customer** provides engineering design drawings to APS.

These drawings must include:

- a. Electrical load calculations.
- b. Electrical plan showing the meter panel location.
- c. Electrical service entrance section drawings (see section 300) with official street address on copies.
- d. Water, sewer, telephone, cable television and any other sub-grade obstruction.
- e. Curb, gutter and paving plans.
- f. Landscaping (including retention basins) and sprinkler plans.

4. **APS** to engineer the electrical system up to the customer's meter panel.

5. **Customer** obtains all necessary permits from the appropriate inspection authority.

6. **Customer** to provide acceptable easements.

7. **Customer** may need to pay a cash advance to aid APS construction. This may or may not be refundable.

8. **Customer** to sign the necessary agreements.

9. **APS** to review service entrance section drawings for approval.

10. **APS** to specify the trench and equipment locations.

11. **Customer** to provide property corners and grade stakes (Blue Tops).

12. **APS** to stake the trench and equipment locations.

13. **Customer** to provide the trench per APS design.

14. **APS** to inspect the trench. Approve if per APS design.

15. **Customer** to provide conduit and equipment pads as required.

16. **APS** to inspect conduit and equipment pads. Approve if per APS specs.

17. **APS** to schedule crew(s) for construction of its facilities.

18. **Customer** to provide credit or security information.

19. **Customer** to schedule for meter panel inspection. (Provide 24 HR notice.) In Metro Region call 371-7363. All other areas call local office. (For phone numbers, see pages B and C in front of book.)

20. **APS** to inspect meter panel. Approve if per APS specifications.

21. **Customer** to obtain City or County electrical clearance (if applicable).

22. When APS receives a City or County clearance, APS will set a meter and energize the service. (If applicable)

**Adequate time must be provided in the customer's schedule to accomplish allocation of materials, scheduling APS crews and complete construction of APS facilities.**

**Only authorized APS employees shall energize a service.**



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**200.2-2 UPGRADE SERVICE**

Prior to service being changed or relocated to supply new or existing load, contact APS. All service entrances being upgraded, (increased main breaker ampacity) or relocated must be brought up to current code and specification requirements. See Paragraph 200.2-1, "New Service" for information and requirements.

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**200.2-3 TEMPORARY SERVICE**

APS will provide temporary service to a customer providing the customer pays the installation and removal costs less the salvage value of such facilities in advance of installation. In addition to temporary load information, the customer should provide APS with a complete statement regarding the requirements for permanent service. (See Paragraph 200.2-1, New Service).

Customers requesting construction power may be delayed as a result of the APS construction backlog of customers that applied for permanent power. Normally these jobs consist of move-in or live-in customers.

When temporary service is provided on a customer's pole, the pole shall conform to the requirements set forth in Paragraph 402.0 in Section 400.

**The service entrance requirements for temporary service are the same as for permanent installations.**

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**200.3 REMOVAL OF SERVICE/FACILITIES**

Requests for the removal of facilities may be made to the local APS office (see Pages B and C in front of book for addresses and telephone numbers). Due to normal schedule times for APS construction crews, a minimum of two weeks notice should be given to APS prior to the date the facilities are to be removed.

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**201.0 CHARACTER OF SERVICE & LIMITATIONS**

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**201.1 SINGLE PHASE**

120 volt, 2 wire	(for two circuits and/or motors of 1/2 hp or less)
7200 volt, 2 wire	(special applications)
12,500 volt, 2 wire	(special applications)
120/240 volt, 3 wire	(normally for residential including refrigeration compressors of 7 1/2 hp or less. Also for non-residential and industrial, but limited to 800 amp service entrance.)*
120/208 volt, 3 wire	(in some areas)
240/480 volt, 3 wire	(Unmetered ADOT highway/lighting services only)

\* If a customer has load requirements over 800 amps at 120/240 volt and three phase service is not readily available, customer may install 2 or more service entrance sections. Each section will be limited to 800 amps and must be located within 10 feet of each other. APS will install at no cost to the customer the necessary totalized metering; however the customer will be required to provide all metering conduits and instrument cabinets in accordance with APS specifications. (See Section 300, Metering Installation Requirements and Schedule 4).



## 201.2

### THREE PHASE

2400 volt, 3 wire	(special applications)
120/240 volt, 4 wire	(limited to 800 amp U.G. [includes U.G. services fed from O.H. transformer banks] & 600 amp O.H. service entrances)
120/208 volt, 4 wire	(limited to 3000 amp U.G. & 600 amp O.H. service entrances)
277/480 volt, 4 wire	(limited to 3000 amp U.G.* & 600 amp O.H. service entrances)
2400/4160 volt, 4 wire	(special applications)
7200/12,470 volt, 4 wire	(special applications)

When a non-residential, industrial, water pumping or irrigation customer requests 3 phase 3 wire 240 volt or 480 volt service, APS will furnish a 3 phase 4 wire 120/240 volt or 277/480 volt grounded neutral service to the service entrance. The Customer shall provide a bus or bar in the section for grounding and bonding as per NEC Articles and provisions for 3 element metering. (This 4 wire service will eliminate confusion in providing a safe installation by permitting the use of overcurrent devices in all phase wires of APS feeder and branch circuits.)

\*Any Customer having over the 3,000 amp at 277/480 volt 3 phase requirement must install 2 or more service entrance sections. Each section will be limited to 3,000 amps and must be within 10 feet of each other. APS will install at no cost to the customer, the necessary totalized combined metering. The Customer will provide the metering conduits and the instrument cabinet per APS specifications. (See Section 300, Metering Installation Requirements)

If the Customer qualifies and requests network service in the Phoenix network area (See Section 500, paragraph 500.4), the service entrance section will be limited to 6,000 amps. If outside the Phoenix network area, the maximum service entrance section size will be determined by APS Division Engineering, but in no case shall the S.E.S. exceed 6,000 amps. (Contact your local APS office as early as possible in the design stage. See Paragraph 200.0)

For specifications regarding service entrance equipment, see Section 1100, Manufacturing Requirements)

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## 201.3

### GUIDELINES for SERVICE VOLTAGES for NON-RESIDENTIAL INSTALLATIONS

Non-residential customers with single phase loads up to 100 KVA demand can be most economically served with 120/240 volt single phase 3 wire. Any distribution line unbalanced conditions can be corrected by proper engineering and field application.

Non-residential customers with motors larger than 7-1/2 hp, but less than a total of 25 hp, should be served with 120/240 volt three phase 4 wire open delta transformer connections. The maximum three phase load should not exceed 50 KVA on this type of installation. If customer doesn't qualify for 120/208 or 277/480 volt three phase 4 wire, then estimate the added cost (if any) and collect as a non-refundable contribution.

Non-residential customers with loads from 50 to 300 KVA, a combination of single and three phase, can be served with either 120/208 or 277/480 volt three phase 4 wire. If customer load is 25 hp or more then they qualify for 120/208 or 277/480 volt three phase 4 wire service.

Non-residential customers with loads over 300 KVA can be served most economically with 277/480 volt three phase 4 wire services, and every effort should be made to furnish this voltage in lieu of 120/208 volts. If customer insists on 120/208 volt service a non-refundable contribution will be required to offset the increased APS capital cost based on the size of the pad mounted transformer installed.



**201.4 MASTER METERING**

Residential apartment complexes, condominiums and other multiple residential buildings shall not have a master metering installation unless building(s) have centralized air conditioning, ventilation and/or heating systems and meet ACC rules and regulations. Master metering will not be installed on existing or new permanent residential mobile home parks. Visit the APS office in your area for more detailed information or consult ACC rules and regulations.

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**201.5 ONE METER PER HOME**

All new homes must be wired for one meter. Existing homes adding load requiring an upgrade of facilities must be wired to be served through one meter.

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**201.6 PRIMARY SERVICE (OVER 600 VOLTS)**

See Section 1000 for High Voltage Metering and Service Equipment Specifications.

