

HOPKINSVILLE ELECTRIC YELLOW BOOK

CONSTRUCTION GUIDELINES

Hopkinsville Electric System Construction Guidelines

PROCEDURE TO OBTAIN ELECTRIC SERVICE

Application for electric service can be made online at hop-electric.com/newconstruction* or at the HES office complex at 1820 East Ninth Street. When application is made, HES will require the individual to provide personal identification, social security number, fee and deposit payment, electrical installation permit and to complete any other documents needed for the particular service.

*This procedure is for homes that do not currently have a meter or have not had electric service for a significant amount of time. If your home does not meet these requirements, please go to hop-electric.com/signup

Upon receiving the electrical installation permit from the Electric Inspector, HES will schedule the connection of the new service as quickly as possible.

ELECTRICAL INSPECTIONS

The following circumstances are considered New Construction and require electrical inspections. This is not meant to be an all-inclusive list and at any time Hopkinsville Electric System reserves the right to request an electrical inspection at any time:

- Permanent Services
- Upgrades or Changeovers
- Reinstallation of services that have been inactive for two (2) years or any significant length of time
- Previously Uninspected Temporary Services

Hopkinsville Electrical Inspectors:

Mark Gary- (270) 305-9256

Roger Guinn- (270) 350-2385

Donald Henry- (270)-556-3377

Lewis Hopper- (270) 886-7964

Terrill Snodgrass- (270) 543-2747

NEW CONSTRUCTION

The individual responsible for decisions about a new construction project should contact HES as to location and configuration of metering, conduit, service wires, etc. needed for adequate service.

The Customer is responsible for purchasing and installing the meter base for all single phase services. HES will provide specifications for the meter base. If a three phase service is to be installed, the customer shall contact the HES engineering department for meter base specifications.

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Upon receiving the electrical installation permit from the Electric Inspector, HES will schedule the connection of the new service as quickly as possible

POLICY FOR UNDERGROUND ELECTRICAL FACILITIES

1. The customer shall submit to HES a written request for underground electrical service along with a complete plat of the development. This request and plat shall outline which areas are to be developed first, second, third, etc.; type of housing proposed; anticipated construction schedules and proposed location of all underground utilities.
2. HES reserves the right to refuse to install underground facilities when in HES's opinion the development does not lend itself to sound economic and engineering practices for underground power distribution or where sufficient recorded easements and information are not provided.
3. The customer agrees to complete an electrical load form in order to provide the HES's engineering staff with sufficient data to provide safe and adequate electric service for the foreseeable future.
4. The HES shall make all decisions as to the design and location of facilities. All requirements outlined in the HES's Schedule of Rules and Regulations with regard to electric service shall apply to this policy.
5. All meter bases will be provided and owned by developer. Specifications for the type meter base will be provided by HES.
6. Any damage caused to the HES facilities during construction periods shall be the responsibility of the customer/developer who will pay for the repair or replacement of the damaged facilities. Damage to HES facilities after completion of construction shall be the responsibility of the persons or firms causing the damage. HES will assume ownership and all maintenance responsibilities associated with aging of the underground system once that system has passed final inspection after construction. All conductors will be installed before the final inspection can be completed.
7. All underground construction by the customer/developer is subject to inspection by HES and must be approved by HES prior to the installation of conductor and transformers. The conduit system must be inspected prior to backfilling. The customer/developer will notify HES one full working day prior to a requested inspection.
8. Special charges may be applicable for non-standard facilities.

UNDERGROUND SERVICE FROM OVERHEAD PRIMARY LINES

1. Customer will contact HES for spotting meter location on building. This meter location will be on the side of the house nearest to existing electrical facilities. It shall not be in a carport or porch.
2. Customer will open trench from meter location to pole. Minimum depth of conduit to be 30" below existing and finished grade including drainage ditches.
3. Customer will furnish and install a continuous run of 3" for single phase or 4" for 3 phase schedule 40 PVC conduit from the meter base to the base of the designated pole. The Customer will be responsible for providing 2-3 sticks of conduits to reach the top of pole. The conduit from the base of the pole must be 4"- 6" standoff and the customer must provide a weather head for the underground secondary service. HES no longer installs or

accepts underground shield covers at designated pole. The permissible number of bends shall not exceed 2– 90 degree elbows or the equivalent thereof however, if the Engineer during inspection determines more elbows are needed, the number shall not exceed 3 – 90 degree elbows or the equivalent thereof in any conduit run. This number of elbows shall include the elbow below the meter base and the elbow at the pole. All bends shall have a radius of not less than 18". The HES will furnish and customer will install a "warning tape" 18" above the conduit. . Customer will install a pull string for the installation of conductors. All necessary conduit will placed from the meter base to the pole top for underground secondary service

4. Customer will be allowed to have services installed that run under permanent structures. This will be allowed in cases where running under a structure is less complicated and possibly eliminates a bend. A 12" minimum clearance must be maintained below any part of the structure foundation to allow for settling and 30" minimum depth must be maintained under all circumstances. It will be the responsibility of the customer to provide a new route for service if a failure should occur in an area that has no access for repair and conduit failure eliminates the possibility of pulling in new service wire. As always, it will be HES's decision as to the design and location of facilities.
5. The customer will backfill trench with clean dirt. No foreign material or building debris is allowed in the trench.
6. When installing power conductor parallel to water, sewer, gas, telephone or television lines, a minimum of 12" separation shall be maintained. No other utilities may be directly above the power conduit. When power conduits cross the lines of other utilities, the power conduit shall be 12" below the other utilities or 12" above if concrete encased. The 30" minimum depth must be maintained under all circumstances.
7. Special permission and instructions shall be obtained from HES for services exceeding 200 amperes single phase.
8. When an existing overhead service is to be replaced with an underground service for the sole convenience of the customer, the customer shall abide by all of the above regulations and may be required to pay the material and labor cost to HES, in advance, for the replacement of the existing overhead service.
9. Any changes to be made to existing underground services will be considered on a case-by-case basis.

UNDERGROUND SERVICE FROM UNDERGROUND PRIMARY LINES

1. Customer will contact the HES for spotting meter location on building. This meter location will be on the side of the house nearest to existing electrical facilities. It shall not be in a carport or porch.
2. Customer will open trench from meter location to padmount transformer or service pedestal. Minimum depth of conduit to be 30" below existing and finished grade including drainage ditches.
3. Customer will furnish and install a continuous run of 3" for single phase or 4" for 3 phase Schedule 40 PVC conduit from the meter base to the padmount transformer or service pedestal. The permissible number of bends shall not exceed 2– 90 degree elbows or the equivalent thereof however, if the Engineer during inspection determines more elbows are needed, the number shall not exceed 3 – 90 degree elbows or the equivalent thereof in any

conduit run. This number of elbows shall include the elbow below the meter base and the elbow at the transformer or service pedestal. All bends shall have a radius of not less than 18". HES will furnish and customer will install a "warning tape" 18" above the conduit. HES System personnel will assist with the installing of the conduit in the transformer or service pedestal. Customer will install pull string for the installation of conductors.

4. Customer will be allowed to have services installed that run under permanent structures. This will be allowed in cases where running under a structure is less complicated and possibly eliminates a bend. A 12" minimum clearance must be maintained below any part of the structure foundation to allow for settling and the 30" minimum depth must be maintained under all circumstances. It will be the responsibility of the customer to provide a new route for service if a failure should occur in an area that has no access for repair and conduit failure eliminates the possibility of pulling in new service wire. As always, it will be HES's decision as to the design and location of facilities.
5. Customer will backfill trench with clean dirt. No foreign material or building debris is allowed in the trench.
6. When installing power conductor conduit parallel to water, sewer, gas, telephone or television lines, a minimum of 12" separation shall be maintained. No other utilities may be directly above the power conduit. When power conduits cross the lines of other utilities the power conduit shall be 12" below the other utilities or 12" above if concrete encased. The 30" minimum depth must be maintained under all circumstances.
7. Special permission and instructions shall be obtained from the HES for services exceeding 200 amperes single phase.
8. Any changes to be made to existing underground services will be considered on a case-by-case basis.

UNDERGROUND PRIMARY AND SECONDARY TO SUBDIVISIONS

Note: SUBDIVISIONS SHALL BE TO NOT LESS THAN ROUGH GRADE AND SHALL HAVE ALL SIGNIFICANT LOT CORNERS AND CONTROL POINTS STAKED PRIOR TO STAKING FOR PROPOSED TRENCHING.

1. Customer shall open a trench as staked by the HES Engineering Department. Bottom of trench shall be uniformly graded and shall have the following minimum depths below finish and existing grade including drainage ditches.
 - a. Primary Conduit- 48" depth
 - b. Secondary Conduit- " 36" depth
2. Customer shall furnish and install up to three continuous runs of 4" Schedule 40 PVC electrical conduit. Conduit is to be capped at both ends. Conduit shall terminate in transformer pads, pull boxes, switch gear pads, service pedestals or turned up at a pole with a 4"-6" standoff bracket provide by and required by the HES. Customer will install pull string for the installation of conductors.
3. The HES System will furnish and the customer shall install "warning tape" at a depth of 18" above the conduit.
4. Trench shall be backfilled with clean dirt. No foreign material or building debris shall be allowed in the trench.
5. When installing power conduits parallel to water, sewer, gas, telephone or television lines a 12" separation shall be maintained. No other utilities may be directly above the power conduit.

6. Power conduits crossing other utility lines shall be encased in concrete 4' on each side of crossing. Concrete shall be a minimum of 4" around conduit.
7. The customer shall provide and install all pads for the placement of power distribution padmount transformers and switching equipment enclosures. All concrete pads shall be constructed to specifications furnished by HES. The customer shall provide and install pull boxes per the HES conduit system design.
8. All conduit routes, concrete pads, pull boxes; service pedestals, meter locations and pole risers shall be designed and located by HES.
9. All bends in the conduit for underground primary conductor shall have a minimum radius of 36" and number of bends shall not exceed 2 – 90 degree elbows or the equivalent thereof; however, if the Engineer during inspection determines more elbows are needed, the number shall not exceed 3 – 90 degree elbows or the equivalent thereof in any conduit run. Bends shall be steel or rigid conduit if so designated by HES.
10. The trenches containing conduits under any road surface shall be backfilled to the specifications of the authority in charge of these roads.

PORTABLE STRUCTURES

A portable structure as defined by HES is any building without a permanent foundation. This list includes but is not limited to pre-manufactured buildings, sheds, and tiny homes.

HES does not permit electrical meter sockets to be mounted to portable structures unless placed upon a permanent foundation and properly secured per city or state building codes.

Service to Portable Structures shall be supplied at the established customer owned meter pole or customer owned and furnished meter pedestal.

All of the services shall be properly installed to ensure that the meter sockets remain plumb

TEMPORARY SERVICE

Contractors or customers requiring electric service on a temporary basis are required by HES to pay all cost for connection and disconnection incidental to the supplying a removing of service. This rule applies to circuses, carnivals, fairs, temporary construction, etc. The following standard fees apply: 1.) Connection fee- \$25; 2.) Security deposit- \$200; 3.) Construction charge- \$150*. Additional fees may be requested for services with atypical circumstances. HES will require a certified inspection on each temporary meter service. Temporary services that are owned by electricians and are moved from job site to jobsite will be required to have stamped certified inspection on the meter base with a minimum of one (1) year validation.

*This is for standard temporary services, anything outside of standard is subject to Engineer's discretion.

MOBILE HOME PARK REGULATIONS

Trenching for underground cable 600 volts and less shall be a minimum for of 36" below finish grade.

No meter sockets shall be less than 36" above finish grade. Measure shall be to the center of the meter sockets.

All meter sockets shall be plumb.

All meter pedestals shall be properly installed to ensure that the meter sockets will remain plumb.

MOBILE HOME PARKS

Service to mobile home parks shall be supplied to the customer's weather head and meter loop installation at no cost to the customer for overhead lines. Meter loop installation shall be of such physical design so as to withstand the strain of the service drop and shall conform to current local codes.

Underground secondary service to mobile home parks will be installed in a 36" deep trench opened and closed by the park. Underground primary to mobile home parks will be installed on a cost difference basis between overhead and underground as determined by the HES Engineering Department.

Underground primary to mobile home parks will be installed in a 48" trench opened and closed by the Customer as determined by the HES Engineering Department

All material installed by the HES will remain the property of the HES.

MOBILE HOMES NOT IN PARKS

Service shall be supplied to the weather head of the Customer's meter pole at no cost to the customer for overhead lines. Meter loop installation shall be of such physical design so as to withstand the strains of the service drop and shall conform to current codes.

Underground service to isolated mobile homes will be installed in a 36" trench opened and closed by the customer.

All materials installed by the HES shall remain the property of the HES.

METER BASE IDENTIFICATION REQUIREMENTS

HES requires all buildings with multiple electrical services (such as apartment buildings or multi-unit complexes) to have each meter base clearly labeled defining which unit the meter base serves (ex. Apt 1, Upstairs Apt., Office 203, etc.).

Identification tags must be outdoor rated brass or stainless steel with a minimum tag size of 1" x 3".

Characters must be stamped or engraved to clearly identify the apartment or unit served. The tags must be attached with rivets or screws to the front of the meter base or below the main breaker. Tape, plastic labels, or magic markers are unacceptable forms of identification tags.

HES APPROVED METER BASES

Hopkinsville Electric System EnergyNet will accept the following Electric Meter base types, a Compatible unit may be accepted with the approval of the HES Engineering or Metering Department upon request by the customer.

Amps

RINGLESS OR RINGTYPE ELECTRIC METER BASE

100	Overhead	* Milbank U7487
200	Overhead	* Milbank U7021
200	Underground	* Milbank U25690
200	Overhead/Underground – 2 Position	* Milbank U1252
200	Overhead/Underground – 3 Position	* Milbank U1253
200	Overhead/Underground – 4 Position	* Milbank U1254
400	Overhead	* Milbank U2448
400	Underground	* Milbank U2448-X

* Compatible units will be accepted at the approval of Engineering or Metering Department

(All 400 Amp Meter Bases will require a bypass lever, if the customer installs a bolt in style meter base, Customer will be responsible for providing a compatible A Base Meter adapter (example listed below) for HES provided Meters.)

Marwell –SP-2387-K7-2-2S – Single Phase or Three Phase SP-2387-K7

SALE OF MATERIALS

1. HES will sell to local contractors and/or electricians only emergency need items, which are not available from merchandisers locally.
2. The sale must be approved by the Engineering Supervisor and/or Operations Manager.
3. The item to be sold must be presented to the Plant Accountant or designee for pricing and an appropriate overhead charge added to the total cost.
4. Variations from this procedure will not be made unless approved by the General Manager.
5. Payments to HES must be by check and mailed or brought to the General Manager's office for recording and signoff before deposit.

SOLAR RENEWABLE GENERATION

Customers who are wanting to install behind the meter renewable generation will be subject to a \$850 standard fee which covers the following

- Application Fee
- Engineering Study
- Inspection
- Commissioning of the Renewable Generation System

Once the interconnection agreement and supporting documentation are submitted and then approved by HES, the \$850 fee is due prior to scheduling the interconnection of the renewable energy system.

Once HES has received the electrical inspection and commissions the system, it will be placed into service.

All fees associated with behind the meter renewable energy installations are non-transferrable, non-refundable and are subject to change. Certain renewable generation programs are subject to Admin Fees as well as metering installation charges. For any questions, please contact the Energy Services Department at (270) 887-0767

EV CHARGING INFORMATION

Most plug-in electric vehicles will charge at home on one of two charging levels. Depending on the level you select, you may need to upgrade your home electrical system. Please follow the steps below!

1. Review the charging options and choose one of the two levels that best meets your needs.
2. Contact a qualified licensed electrician to evaluate your current electrical infrastructure and determine what upgrades, if any, need to be made. Several auto manufacturers are working with their customers to provide site assessments and EVSE installation cost estimates. Customers should check with the auto manufacturer to determine if this is a service they provide.
3. Contact HES Engineering Department to evaluate the service transformer and grid infrastructure serving your home or business to determine if an equipment upgrade is required.