



## Electric Vehicle Metering Procedures

### *Outline-*

*Process for installing an Electric Vehicle Meter for both a BVES Inc EV Meter Program, or a 3<sup>RD</sup> party Sub Meter Program.*

### **1. Starting Process**

Complete and submit a Preliminary Service Request at BVES Inc. Form at [Preliminary Service Request | Bear Valley Electric Service, Inc. \(bvesinc.com\)](https://www.bvesinc.com).

(The Preliminary Service Request is valid for any Engineering Request.)

### **2. Response Letter**

BVES Inc. Engineering responds within 3 to 4 weeks, providing details and scope of work for project.

Confirmation Code for the property address will be included, the code is unique to the property.

Validity: 6 months from the submission month.

Note: If the response letter is Pending or lacks a confirmation code, additional requirements must be addressed with BVES Inc. Engineering for approval. All Preliminary Service Requests are valid for 6 months.

### **3. Documentation and EV Meter Installation Type**

Customer completes an Electric Vehicle EV Meter application.

Within the application, the customer will decide on the EV installation path.

For 3rd Party installation, additional documentation is needed for meter data and contractor contact.

### **4. Approval and Installation**

Approval Response letter sent to the customer upon receiving all required documentation.

BVES Inc. EV Meter installation follows Step 5, while 3rd Party Sub-meter installation follows Step 6.



Note: BVES Inc. EV Meter Program requires a combination panel type; panel upgrades may be necessary.

#### **5. BVES Inc. EV Meter Program Process**

A qualified electrician will contact BVES Inc. Engineering to coordinate a disconnection date.

BVES Inc. service crew disconnects power and removes the existing meter.

Installation follows BVES Inc. specifications, and post-installation inspection is scheduled.

Reconnection includes installing the new EV Meter.

#### **6. Third Party Sub-meter**

Qualified individual follows BVES Inc. specifications for the Third Party Sub-Meter Program.

The customer's sub-meter is placed on the distribution side, meeting safety codes and program specifications.

A final inspection by the building and safety department is required for billing rate confirmation.

Note: Existing panels may need upgrades; BVES Inc. will specify requirements in the response letter.

EV CHARGING STATIONS CONFIGURATIONS  
UTILITY MAINTAINED METER

THE FOLLOWING PAGES WILL DETAIL METERING CONFIGURATIONS THAT PROVIDES A UTILITY OWNED METER WHICH IS INSTALLED UPON A CUSTOMER COMPLETING AN INSTALLATION OF A NON TRADITIONAL METER PANEL AS LISTED WITHIN "**ATTACHMENT A**"

THE CUSTOMER SHALL FOLLOW STANDARD PROCEDURES AS LISTED WITHIN A "**EV INSTALLATION PROCEDURES**" THE FOLLOWING DRAWINGS, CALLOUTS, AND INSTRUCTIONS ARE FOR CONSTRUCTIONS STANDARDS IN REGARDS TO BVES INC EV METER PROGRAM

MINIMUM PANEL STANDARDS

ALL PANELS MUST MEET MINIMUM SAFETY STANDARD TO JOIN THE BVES INC EV METER PROGRAM ANY PANEL THAT DOES NOT MEET THIS REQUIREMENT SHALL BE REQUIRED TO BE UPGRADED. THE SITE ASSESSMENT DONE BY BVES INC ENGINEERING TEAM WILL REVIEW ALL CONDITIONS OF THE PANEL CONDUCTOR SIZES AND UTILITY INFRASTRUCTURE. AFTER SITE REVIEW A RESPONSE LETTER WILL OUTLINE BVES INC FINDINGS AND SCOPE OF WORK FOR PROJECT FOR DETAILS ON INSPECTION PROCESS PLEASE REVIEW THE "**EV INSTALLATION PROCEDURES**"

PROOF OF CAR CHARGER

PRIOR TO INSTALLATION A CAR CHARGER CUT SHEET IS TO BE PROVIDED WITH APPLICATION FOR BVES INC EV METER PROGRAM. THE CUT SHEET SHALL INCLUDE LOAD CHARACTERISTICS OF THE PROPOSED CAR CHARGER THE EV CHARGER WILL NOT BE ALLOWED EXCEED 50 AMPS OF USE IN A SINGLE PHASE 120/240 VOLTAGE ONCE INSTALLATION IS APPROVED PRIOR TO DISCONNECTING SERVICE THE PROPERTY SHALL HAVE INSTALLED THE CAR CHARGER THAT MATCHES THE SAME DOCUMENT THAT WAS PROVIDED TO BVES INC

WITHIN THE BVES INC EV METER PROGRAM BVES INC WILL PROVIDE A UTILITY OWNED METER. THE INSTALLATION OF THE EV METER PANEL, WIRE, AND MATERIAL IS A CUSTOMER RESPONSIBILITY TO INSTALL AND MAINTAIN. ONLY CUSTOMERS WITH AN APPROVED APPLICATIONS WILL BE ALLOWED TO INSTALL AND JOIN THE BVES INC EV METER PROGRAM. ALL APPLICATIONS WILL RECEIVE AN APPROVAL LETTER WHICH WILL AUTHORIZE STARTING THE PROJECT. ANY INSTALLATION COMPLETED WITHOUT WRITTEN APPROVAL FROM BVES INC. WILL NOT BE ACCEPTED UNTIL ALL GUIDELINES, PROCEDURES AND SPECIFICATIONS ARE MET. ALL APPROVED INSTALLATIONS SHALL BE COMPLETED ON A DE-ENERGIZED PANEL WHICH SHALL BE DISCONNECTED BY QUALIFIED BVES INC. EMPLOYEES.

THE SECOND METER INSTALLATION WILL ONLY BE ACCEPTED WITHIN A EV CHARGER CONFIGURATION. ANY ADDITIONAL METERS FOR STANDARD OVERHEAD, UNDERGROUND AND COMMERCIAL PROJECTS WILL FOLLOW THE GUIDELINES, PROCEDURES AND SPECIFICATIONS THAT PERTAIN TO SAID INSTALLATION REQUEST. ANY EXISTING CUSTOMER ON A SOLAR PROGRAM WITH BVES INC WILL NOT BE ELIGIBLE TO JOIN BOTH EV METER AND SOLAR PROGRAMS FOR MORE INFORMATION REGARDING ADDITIONAL METERS, AND PROGRAM ELIGIBILITY PLEASE SUBMIT A PRELIMINARY SERVICE REQUEST AT <https://www.bvesinc.com/construction/preliminary-service-request>

BEAR VALLEY ELECTRIC SERVICE INC.

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## EV METER NOTES

ONCE BVES INC HAS REVIEWED THE EXISTING PANEL THROUGH THE PSR SUBMISSION THE FOLLOWING OUTLINE WILL BE FOR EV INSTALL THIS SPECIFICATION WILL PERTAIN TO THE BVES INC EV METER PROGRAM.

- THE EXISTING OVERHEAD PANEL SHALL BE A COMBINATION METER PANEL
- THE CONNECTION POINTS TO THE EV METER LOCATION WILL BE DETERMINED DEPENDING ON MAIN SERVICE ENTRY POINT (*OVERHEAD OR UNDERGROUND*)
- FOR CON FIGURATION DETAILS AND SPECIFICATIONS TO CONNECT FROM THE MULTIPLE POINT PLEASE REVIEW EV1 FOR OVERHEAD AND UNDERGROUND COMBINATIONS
- ALL EV METERS SOCKETS SHALL BE SECURLY PLACED ON THE WALL
- IN EVENT THAT SERVICE PANEL MUST BE UPGRADED THE CUSTOMER MAY CHOOSE TO INSTALL A COMBINATION METER PANEL, A DUAL SOCKET METER PANEL AND OR FOLLOW THIRD PARTY EV METERING OPTIONS. SPEAK WITH BVES INC REPRESENTATIVE TO UNDERSTAND OPTIONS FURTHER

### 1) EXISTING PANEL OVERHEAD TYPE

EXISTING PANEL IS AN OVERHEAD INSTALLATION THE PANEL SERVICE WIRE WILL BE REVIEWED AND MUST BE ABLE TO SUPPORT THE ADDITIONAL LOAD OF EV METER.

### 2) BVES INC EV METER

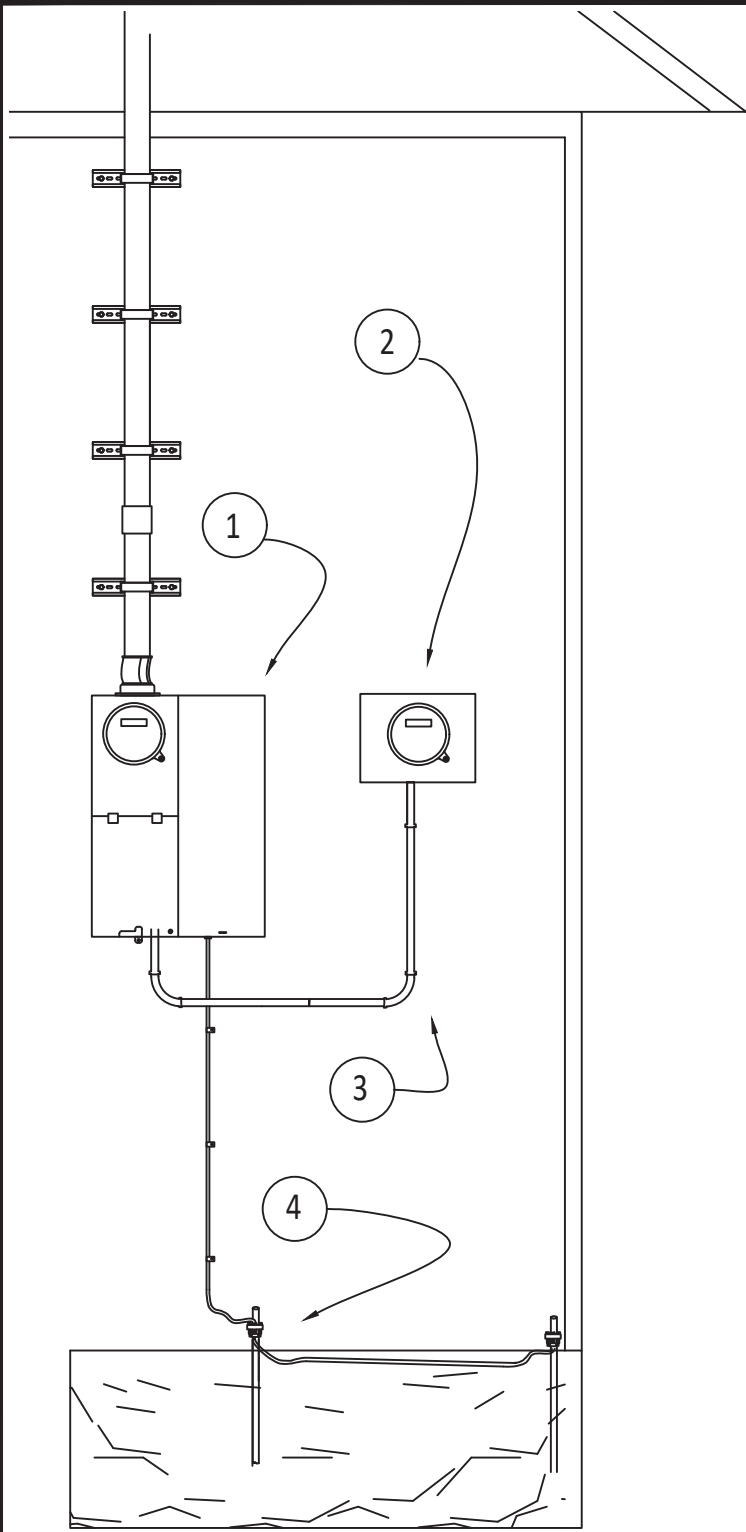
UTILITY METER TO BE PROVIDED BY BVES INC CUSTOMER TO INSTALL AND PROVIDE METER SOCKET FOR UTILITY METER

### 3) DUCT WAY

SINGLE CONTINUOUS CONDUIT PER NEC STANDARDS BY CUSTOMER. RUN LENGTH SHALL NOT EXCEED 10' FROM EXISTING SERVICE PANEL. DUCT TO BE LABELED "EV ONLY" EVERY 30"

### 4) GROUNDING & BONDING

GROUNDING AND BONDING TO MEET BVES INC SPECIFICATIONS AND NEC STANDARDS. BONDING CONDUCTOR TO BE INSTALLED WITHIN DUCT WAY



EXISTING OVERHEAD INSTALL  
DETAILS

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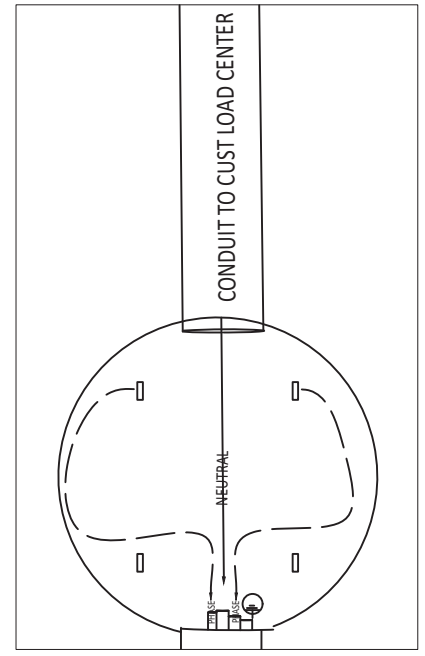
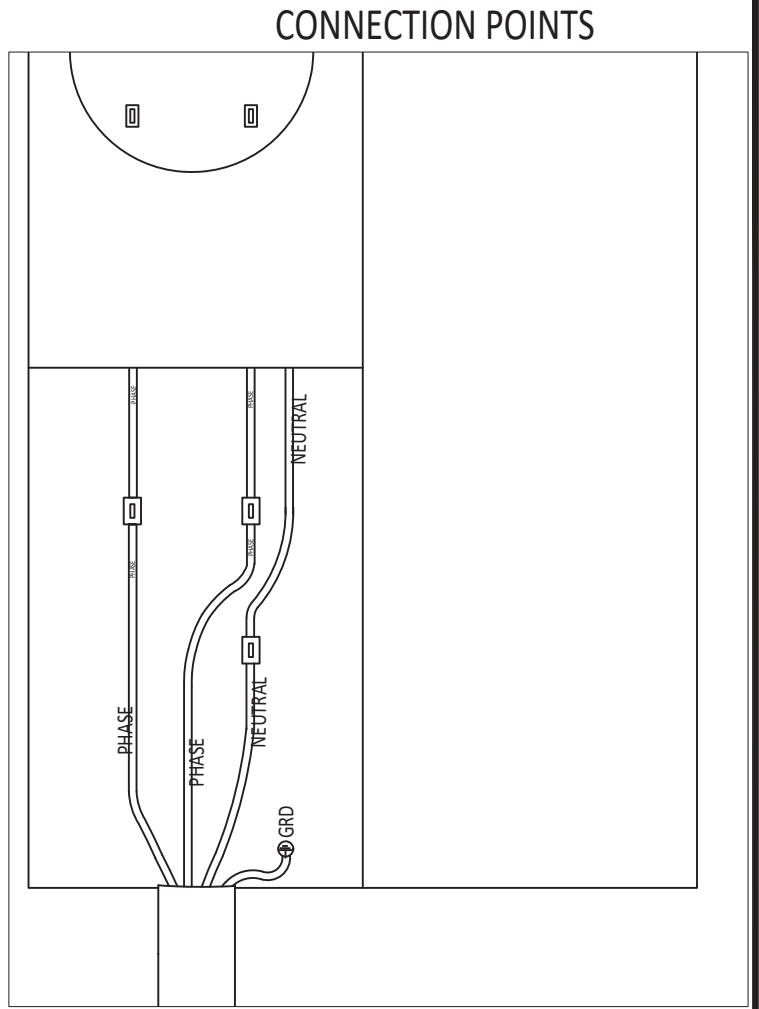
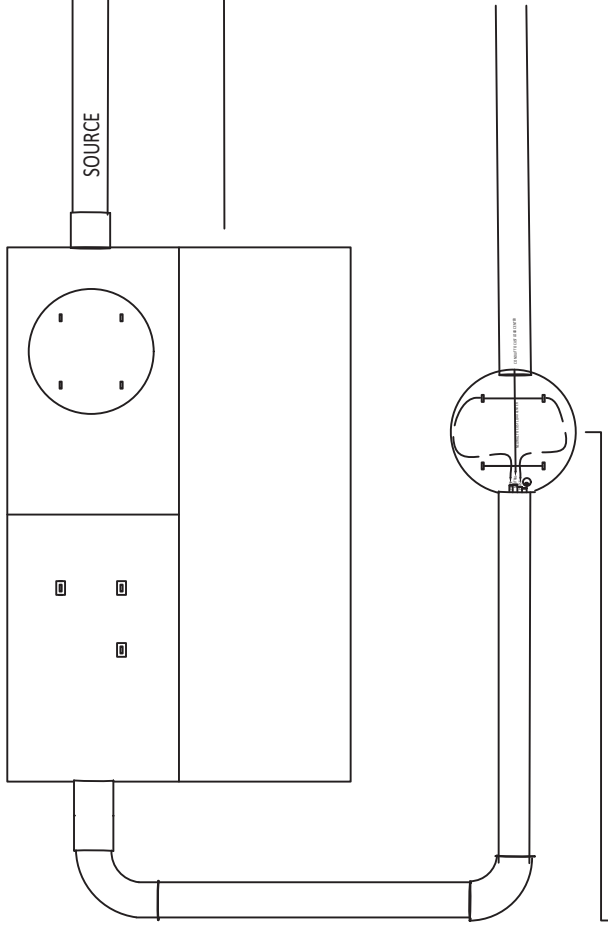
EV1

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# EXISTING OVERHEAD INSTALL DETAILS

## CONNECTION POINTS



### CONNECTION POINT NOTES

OVERHEAD INSTALLATION WITHIN A COMBINATION METER WILL BE AS FOLLOWS

EV METER SHALL BE WITHIN 10' OF EXISTING SERVICE AND SHALL MEET AND FOLLOW ALL STANDARD NEW CONSTRUCTION UNDERGROUND PANEL SPECIFICATIONS.

EV METER HEIGHT SHALL MAINTAIN A MINIMUM OF 5'4 TO 6'

NEUTRAL WIRE SHALL BE CLEARLY IDENTIFIED WITH WHITE ELECTRICAL TAPE  
NEUTRAL WIRE SHALL BE CONTINUOUS TO CUSTOMER LOAD CENTER FOR EV

A GROUNDING WIRE SHALL BE WITHIN DUCT BONDING PERMANENT PANEL TO EV METER PANEL

CONNECTIONS OF WIRE TO LINE SIDE OF METER SHALL BE COMPLETED BY CUSTOMER.

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# EXISTING UNDERGROUND INSTALL DETAILS

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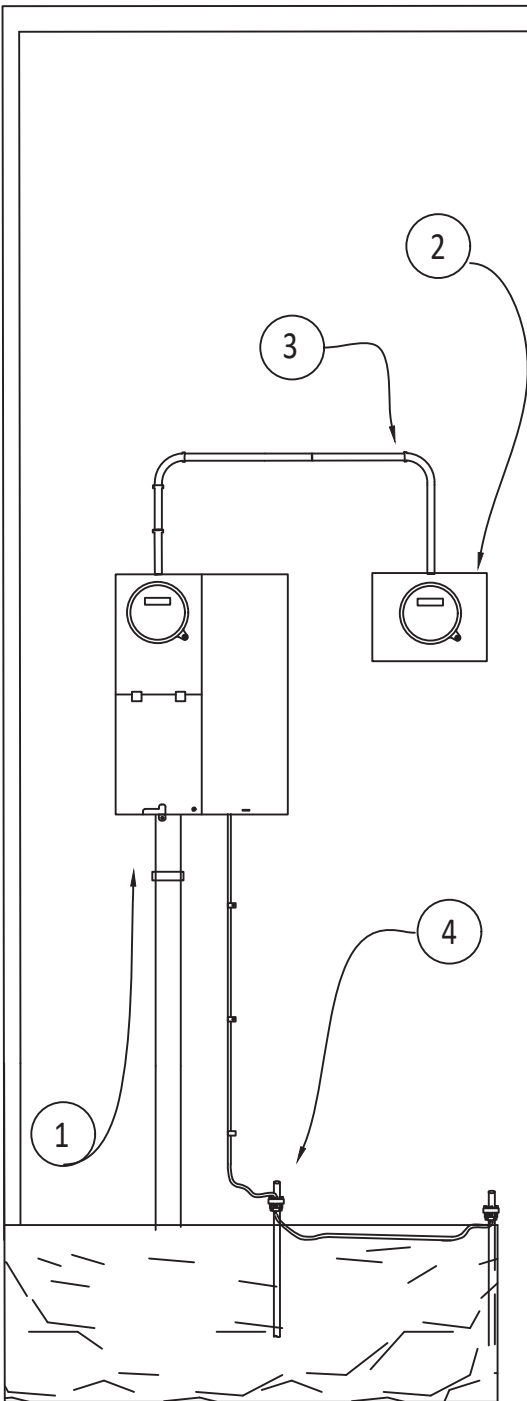
UTILITY METER TO BE PROVIDED BY BVES INC CUSTOMER TO INSTALL AND PROVIDE METER SOCKET FOR UTILITY METER

### 3) DUCT WAY

SINGLE CONTINUES RIDGED 2" STEEL DUCT TO BE PROVIDED BY CUSTOMER. RUN LENGTH SHALL NOT EXCEED 24" FROM EXISTING SERVICE PANEL

### 4) GROUNDING & BONDING

GROUNDING AND BONDING TO MEET BVES INC SPECIFICATIONS AND NEC STANDARDS STANDARD UNDERGROUND SPECIFICATIONS.



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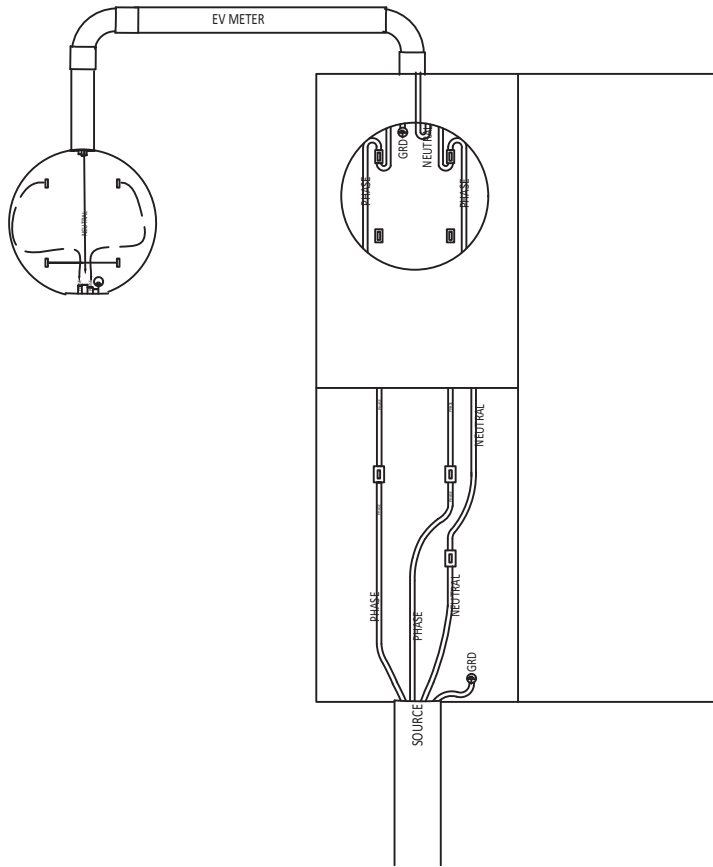
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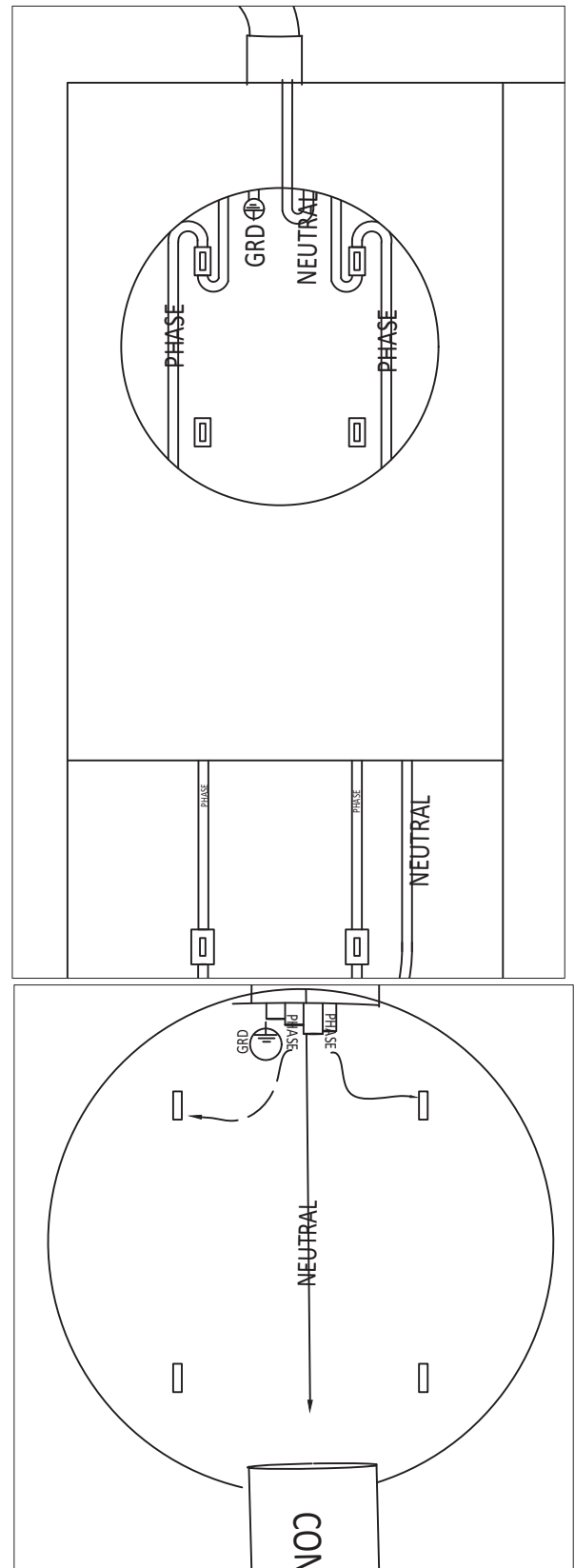
EV1

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# EXISTING UNDERGROUND INSTALL DETAILS



# CONNECTION POINTS



### CONNECTION POINT NOTES

UNDERGROUND WITH A COMBINATION METER WILL BE AS FOLLOWS

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# ALTERNATIVE OVERHEAD INSTALL DETAILS

## EV METER NOTES

ONCE BVES INC HAS REVIEWED THE EXISTING PANEL THROUGH THE PSR SUBMISSION THE FOLLOWING OUTLINE WILL BE AN ALTERNATIVE PANEL INSTALL IN LIEU OF A COMBINATION PANEL IN THE EVENT THAT A SERVICE IS REQUIRED TO BE UPGRADED

- DUAL SOCKET METER PANEL ONE METER DEDICATED TO HOME SERVICE AND SECOND METER DEDICATED TO EV INSTALLATION.
- PLEASE PROVIDE CUTSHEET FOR DUAL METER PANEL REVIEW AND APPROVAL BY BVES INC. AND LAOD CALCULATIONS

### 1) PANEL UPGRADE

PANEL WILL BE UPGRADED AND NEED TO MEET MINIMUM BVES INC OVERHEAD SPECIFICATIONS. FOR OVERHEAD INSTALLATIONS TO REMAIN TOTAL AMPERAGE OF SERVICE NOT TO EXCEED 200 AMPS. ANY SERVICE THAT EXCEED 200 AMPS WILL SHIFT TO AN UNDERGROUND INSTALLATION

### 2) HOUSE METER

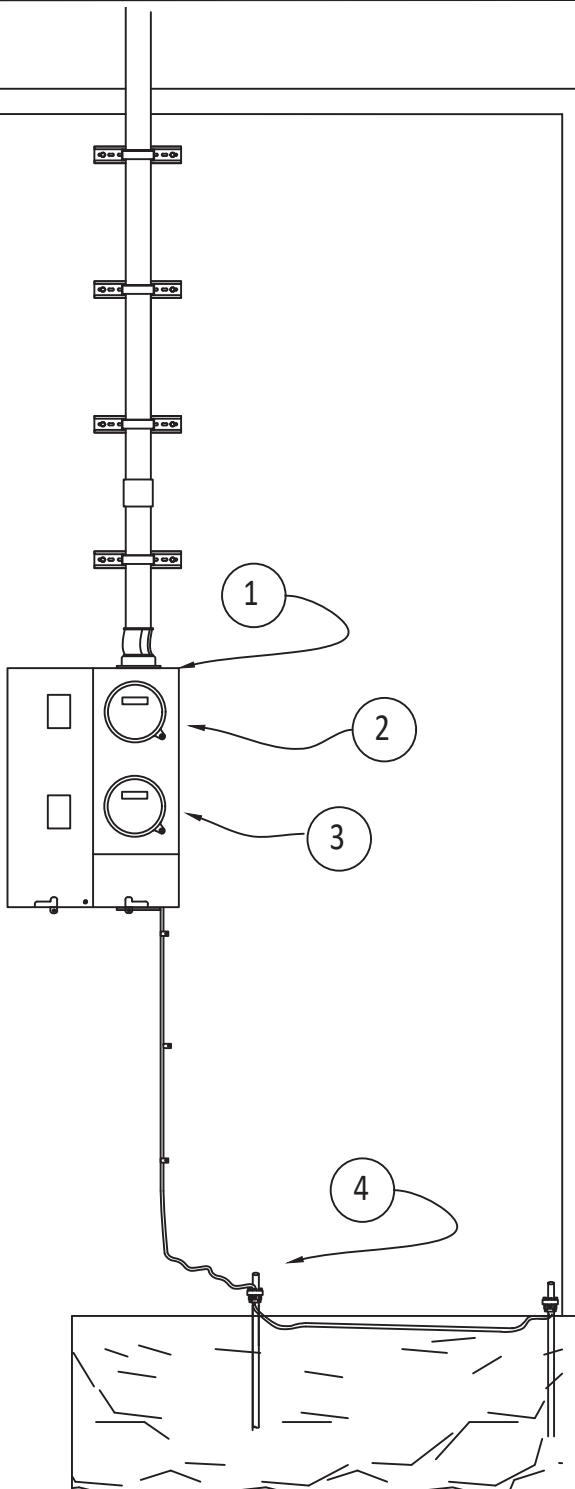
UTILITY METER TO BE PROVIDED BY BVES INC TO MONITOR ALL STANDARD USAGE

### 3) EV METER

UTILITY PROVIDED METER TO MONITOR ALL EV METER LOAD

### 4) GROUNDING & BONDING

GROUNDING AND BONDING TO MEET BVES INC SPECIFICATIONS AND NEC STANDARDS



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# ALTERNATIVE UNDERGROUND INSTALL DETAILS

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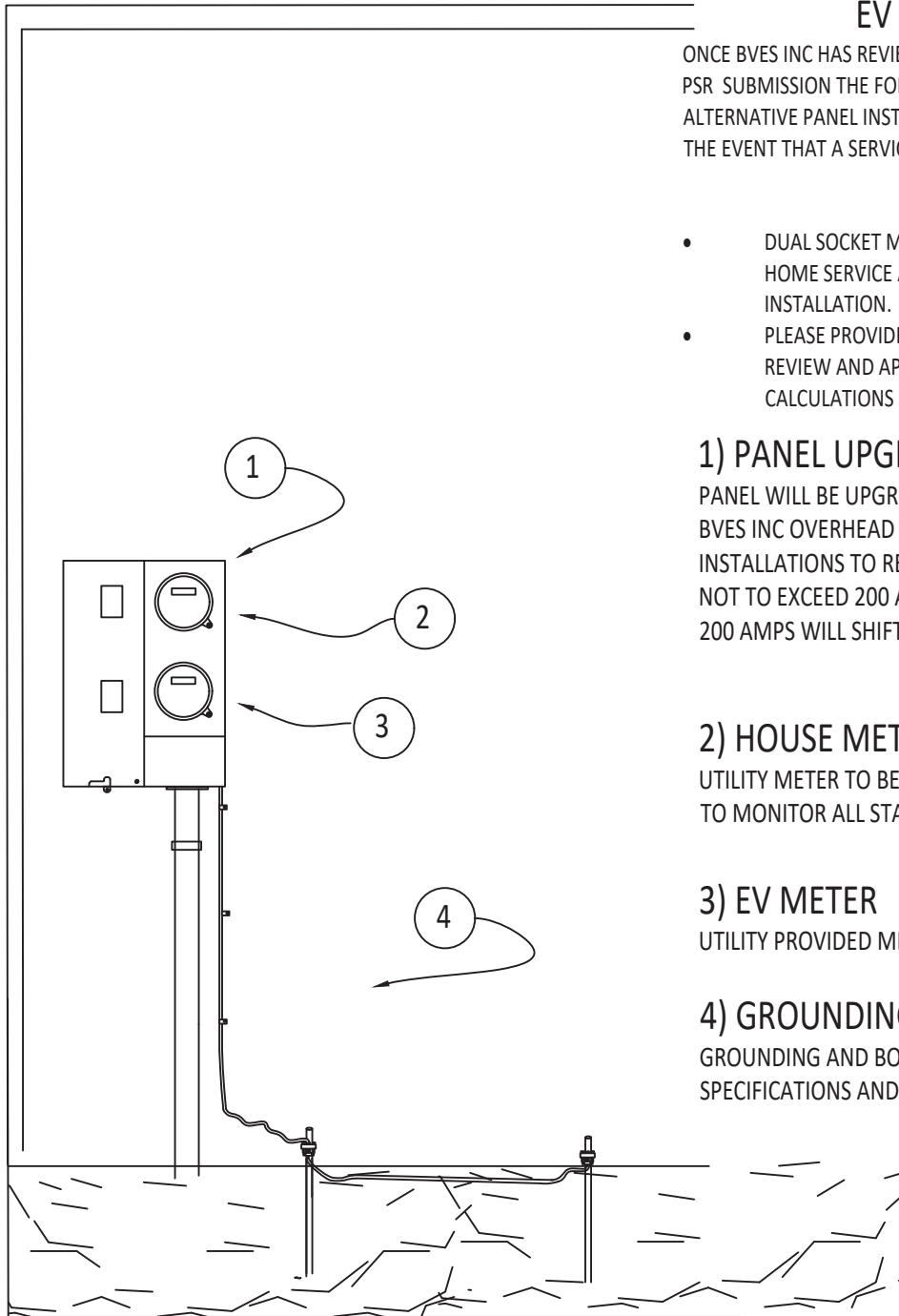
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GROUNDING AND BONDING TO MEET BVES INC SPECIFICATIONS AND NEC STANDARDS



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SUBMETER INSTALLATION UTILITY MAINTAINED METER

- A. SUBMETER PLACEMENT WILL NEED TO BE PLACE AT EXTERIOR OF HOME NO FURTHER THAN 10' FROM EXISTING ELECTRICAL PANEL.
- B. SUBMETER INSTALLATION WILL NEED TO FOLLOW AND MEET ALL LOCAL BUILDING AND SAFETY CODES AND PROCEDURES WHICH WOULD INCLUDE PERMITTING, BUILDING CODE, AND NEC REGULATIONS. IN A THIRD PARTY INSTALLATION BVES INC. WILL NOT REVIEW AND OR APPROVE ANY INSTALLATION OTHER THAN THE REQUESTED SINGLE RACEWAY (NOTE 2) AND PLACEMENT OF SUBMETER IN RELATION TO EXISTING ELECTRICAL PANEL THE SUBMETER WILL BE VIEWED AS A CUSTOMER LOAD INSTALLATION THEREFORE DOES NOT PERTAIN TO BVES INC JURISDICTION.
- C. UPON RECIEVING AN ELECTRIC SERVICE RELEASE FROM THE GOVERNING BUILDING AND SAFETY DEPARTMENT BVES INC WILL WORK WITH THIRD PARTY INSTALLER TO FINALIZE A READING SCHEDULE AND BILLING DATE..
- C.1 UPON RECEIVING A FINAL INSPECTION FROM GOVERNING BUILDING AND SAFETY DEPARTMENT FOR THE INSTALLATION OF THE SUBMETER AND EV CHARGER, THE CUSTOMER WILL BE READY TO START THE EV METER RATE
- D. BVES INC WILL REQUIRE A SINGLE NON INTERRUPTED RACEWAY USING AN NEC APPROVED INSTALLATION

CALLOUT C & C1 WILL BE DECIDED BY CUSTOMER PLEASE REVIEW THE PLUG-IN ELECTRIC VEHICLE SUBMETERING PROTOCOL CHAPTER A I.1 AND REVIEW OPTION 3 & 4. TO UNDERSTAND OPTIONS

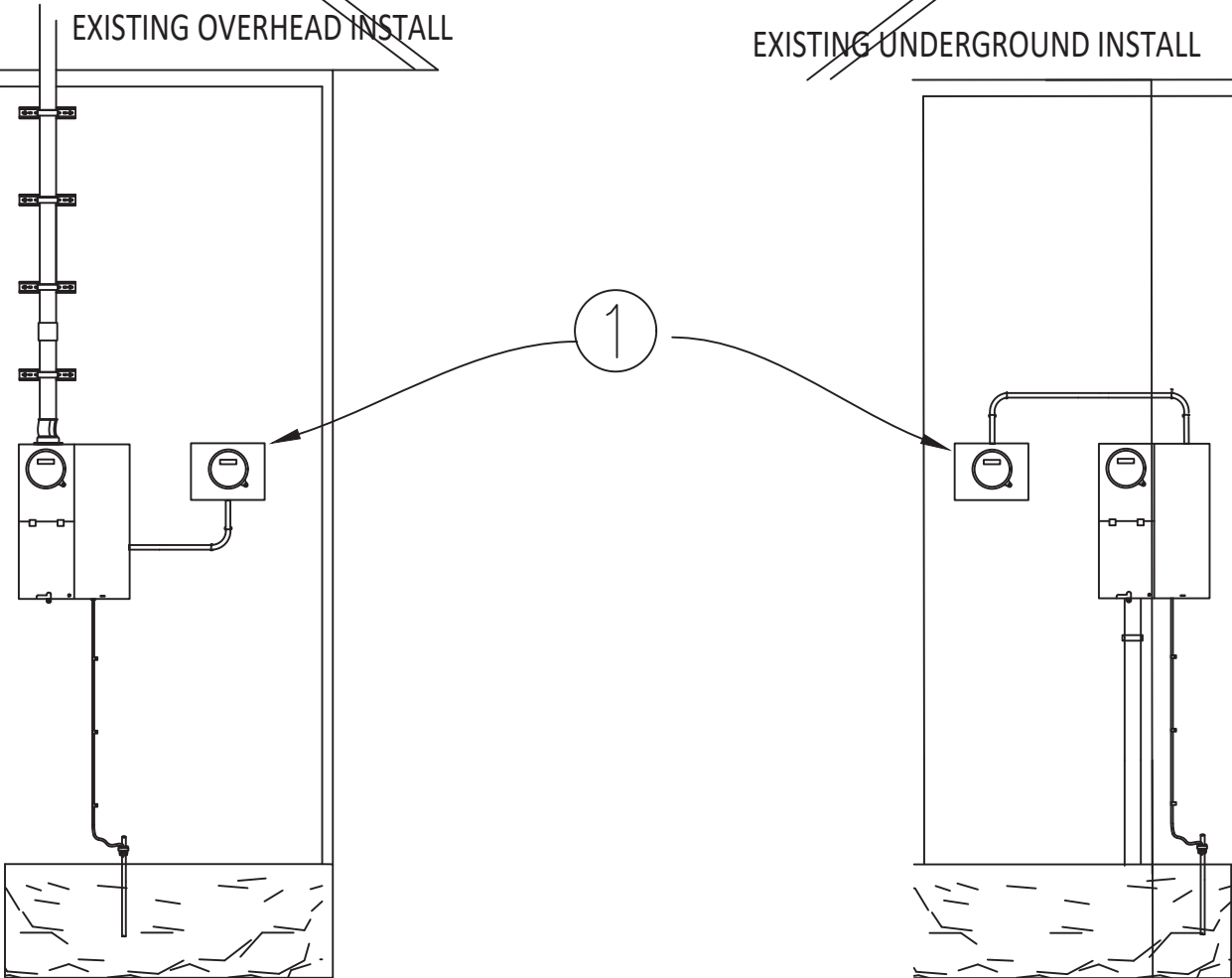
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THIRD PARTY SUB-METER INSTALLATION NOTES

EXISTING OVERHEAD INSTALL

EXISTING UNDERGROUND INSTALL



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