PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION **RESOLUTION E-5168**
October 7, 2021

R E S O L U T I O N

Resolution E-5168 Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power request approval to establish new EV Infrastructure Rules and associated Memorandum Accounts, pursuant to Assembly Bill 841.

PROPOSED OUTCOME:

- This Resolution finds that Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC and PacifiCorp d/b/a Pacific Power proposed EV Infrastructure Rules and associated Memorandum Accounts are reasonable, with modifications, and are in compliance with Assembly Bill 841.

SAFETY CONSIDERATIONS:

- This Resolution has no direct impact on safety. The safety considerations associated with this Resolution are similar to the safety considerations associated with existing utility responsibilities in building new service and electrical distribution infrastructure. The utilities must continue to comply with existing utility and Commission policy on safety requirements and standards, as well as the Transportation Electrification Safety Requirements checklist adopted in 2018.

ESTIMATED COST:

- The new Rules this Resolution establishes are expected to lead to increased ratepayer cost over time, as they will cover the utility-side costs associated with new EV charging. We are unable to estimate a total cost impact, since it is difficult to estimate the rate of EV charger deployment and the number of customers that will take service under the EV Infrastructure Rules.

By Advice Letter Bear Valley Electric Service Inc. 413-E filed on March 1, 2021, Advice Letter Liberty Utilities (Calpeco Electric) LLC 166-E filed March 1, 2021, and PacifiCorp d/b/a Pacific Power Advice Letter 649-E filed May 21, 2021 and 649-E-A filed on June 18, 2021.

SUMMARY

The EV Infrastructure Rules and associated Memorandum Accounts proposed by Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC and PacifiCorp d/b/a Pacific Power are reasonable, comply with the requirements in Assembly Bill 841, and are approved with modifications.

On February 26, 2021, PacifiCorp d/b/a Pacific Power (PacifiCorp) filed Advice Letter (AL) 643-E, which was withdrawn on May 17, 2021 and replaced with AL 649-E on May 21, 2021. PacifiCorp filed AL 649-E-A on June 18, 2021, which clarifies language within their May 21 filing. On March 1, 2021, Bear Valley Electric Service Inc. (BVES) filed AL 413-E, and Liberty Utilities (Calpeco Electric) LLC (Liberty) filed AL 166-E. The three IOUs request approval to establish new Electric Rules—Rule 24 for BVES, Liberty, and PacifiCorp—known as the EV Infrastructure Rules. The ALs also request approval of associated Electric Vehicle Infrastructure Memorandum Accounts (EVIMA) to track the costs associated with offering these new Rules.

These ALs were filed pursuant to Assembly Bill (AB) 841 (Ting, 2020), which directed the investor-owned utilities (IOUs) to file ALs no later than February 28, 2021 to establish a new tariff or rule that authorizes each IOU to design and deploy all electrical distribution infrastructure on the utility side of the meter for all separately metered infrastructure supporting charging stations, other than those in single-family residences.

This Resolution requires modifications to the proposed EV Infrastructure Rules to create consistency in policy across the IOU service territories, increase transparency for customers, and ensure additional protections for ratepayers. This Resolution requires each IOU to file a Tier 1 Advice Letter within 60 days of adoption of this Resolution to make the modifications that this Resolution orders and to address the outstanding implementation details related the Rules. The Resolution additionally orders each IOU to also file a Tier 2 AL to address outstanding implementation details that the Tier 1 AL filing does not cover, and another Tier 2 AL to propose a target for service energization timing.

Approval of this Resolution permits BVES, Liberty, and PacifiCorp to offer their optional Rule 24 to any customer, other than those in single-family residences, installing separately metered EV charging starting no later than six months from the approval of this Resolution. EV charging that is metered with other load will not be eligible for the EV Infrastructure Rules. The CPUC will conduct an evaluation of the Rules at the beginning of 2025 and determine if modifications

to the Rules are necessary. This Resolution requires the IOUs to track costs on a site-by-site basis, among other requirements, within their proposed Memorandum Accounts, and additionally requires the IOUs to report data via a public annual Joint small IOU AB 841 Electric Vehicle Charging Infrastructure Cost Report to enable analysis and evaluation of the EV Infrastructure Rule.

BACKGROUND

AB 841 requires the CPUC and IOUs to take numerous actions related to Transportation Electrification (TE). Commissioner Rechtschaffen issued an Assigned Commissioner Ruling (ACR) on January 15, 2021 within the DRIVE Rulemaking (R.18-12-006) to seek feedback from parties on how to implement and interpret certain portions of AB 841. Although the ACR posed questions regarding several of the AB 841 TE directives and the topics raised—e.g., underserved communities requirement,[1] directive to issue decisions on TE program applications,[2] Common Treatment for Excess PEV Charging policy[3]--several of these issues will be addressed outside of this Resolution. Instead, this Resolution primarily focuses on the requirements outlined in PU Code Section 740.19 regarding utility-side distribution costs, as described in Table 1 below, and policy issues related to the implementation of utility-side Rules[4] discussed in the ACR and party comments to the ACR.

Table 1: AB 841 Utility-Side Distribution Cost Requirements

Requirement	Responsibility	Reference
Change the CPUC practice of authorizing utility-side electrical distribution infrastructure needed to charge electric vehicles (EVs) on a case-by-case basis through individual program applications to authorization of that infrastructure and associated design, engineering, and construction costs on an ongoing basis in an IOU's general rate case (GRC).	CPUC	740.19(a)
Continue to require each IOU to provide an accurate and full accounting of all expenses related to utility-side electrical distribution infrastructure.	CPUC	740.19(a)

[1] 740.12(a)(1)(B)
[2] 740.18(a) and 740.18(b)
[3] 740.19(d)(2) and (3)
[4] 740.19(a), (b), and (c)

Apply appropriate penalties to the extent an IOU is not accurately tracking all expenses.	CPUC	740.19(a)
Defines "electrical distribution infrastructure" as including poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment as necessary, and associated engineering and civil construction work.	CPUC	740.19(b)
IOUs must file an advice letter by February 28, 2021 and the CPUC must approve a new tariff or rule by June 30, 2021 that authorizes each IOU to design and deploy all utility-side electrical distribution infrastructure for customers installing separately metered EV charging, excluding charging in single family homes.	CPUC and IOUs	740.19(c)
Costs incurred by the IOUs between January 1, 2021 and the implementation date of rates approved in the next GRC decision for that IOU shall be tracked in a memorandum account and recovered, subject to reasonableness review in the decision adopting the next GRC revenue requirement.	CPUC and IOUs	740.19(c)
Costs shall be treated like those costs incurred for other necessary distribution infrastructure.	CPUC	740.19(c)
The new tariff shall replace the line extension rules currently used[5] and any customer allowances established shall be based on the full useful life of the electrical distribution infrastructure.	CPUC	740.19(c)
The CPUC can revise this policy after the completion of the GRC cycle following the one during which the advice letter was filed if a determination is made that a change in the policy is necessary to ensure just and reasonable rates.	CPUC	740.19(c)

On February 5, 2021, parties[5] filed Opening Comments responding to questions posed in the ACR, with Reply Comments filed on February 19, 2021. Party responses to the ACR questions

[5] Advance Energy Economy (AEE), California Association of Small and Multi-Jurisdictional Utilities (CASMU), ChargePoint, Joint Comments by Environmental Defense Fund (EDF), Siemens, Enel X North America, Inc., Natural Resources Defense Council, Greenlots, EVBox Inc., The Coalition of California

regarding utility-side distribution costs and the associated memorandum accounts are considered within this Resolution.

According to the ACR, "[party] comments will be utilized by the Commission in executing its mandate under AB 841 and may be used in future Commission decisions, resolutions, or dispositions of advice letters by the Commission's Energy Division." As such, the outstanding issues raised in the ACR and comments related to the establishment of the new EV Infrastructure Rules will be addressed through this Resolution.

On February 26, 2021, PacifCorp filed AL 643-E. On March 1, 2021, BVES filed AL 413-E and Liberty filed AL 166-E. PacifiCorp's AL filing proposed modifications to update its Rule 15, Line Extension Tariff to double the existing Extension Allowance for nonresidential customers requesting service through Rule 15 to install EV charging infrastructure. PacifiCorp withdrew AL 643-E on May 17, 2021 and filed AL 649-E on May 21, 2021. BVES, Liberty, and PacifiCorp's Advice Letters each proposed to establish a new Rule, Rule 24 – EV Infrastructure, and a new Electric Vehicle Infrastructure Rule Memorandum Account to record and track the costs associated with the actual incremental capital costs associated with the design and deployment of electrical distribution infrastructure on the utility side of the customer's meter performed through the Rules.

NOTICE

Notice of BVES's AL 413-E, Liberty's AL 166-E, and PacifiCorp's AL 649-E were made by publication in the Commission's Daily Calendar. BVES, Liberty and PacifiCorp state that their ALs were mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

Two parties, Public Advocates Office (Cal Advocates) and ChargePoint, submitted protests on BVES's AL413-E, Liberty's AL 166-E, and PacifiCorp's AL 643-E. PacifiCorp's AL 649-E requested Energy Division to waive the protest period.

Cal Advocates' protests recommend the CPUC suspend BVES's, Liberty's, and PacifiCorp's ALs pending the CPUC issuing a Decision on how the IOUs should implement their proposed Rules. Cal Advocates also highlights that the timing of party comments on the ACR did not

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Utility Employees (CUE), National Diversity Coalition (NDC), Pacific Gas and Electric (PG&E), Peninsula Clean Energy (PCE), Public Advocates Office at the California Public Utilities Commission (Cal Advocates), San Diego Gas & Electric (SDG&E), Sierra Club, Union of Concerned Scientists, East Yard Communities for Environmental Justice, Center for Community Action and Environmental Justice (Joint Commenters), Small Business Utility Advocates (SBUA), Southern California Edison (SCE), Tesla, The Utility Reform Network (TURN), Utility Consumer's Action Network (UCAN, Vehicle-Grid Integration Council (VGIC)

provide sufficient time for the IOUs to consider and incorporate recommendations provided in comments, such as their proposal for customer allowances within the new Rules.

ChargePoint, while generally supportive of BVES's and Liberty's ALs, offers some recommendations and specific feedback to "develop a proposed rule that can work effectively for customers, vendors, and installers."

In its proposal, BVES and Liberty state that eligible applicants must purchase and install qualified EVSE in the quantity approved by the IOU, at the IOUs' sole discretion. ChargePoint's protest to BVES and Liberty argues that the language of AB 841 does not provide the IOUs the right to unilaterally determine the number of EVSE a customer will install. ChargePoint further states that BVES and Liberty provide no information as to what EVSE qualifications are required, that BVES fails to cite to language in AB 841 that supports its proposal to require qualified equipment for customers to take service under the Rule, and that BVES and Liberty both fail to justify why they would have sole discretion to determine the quantity of EVSE installed. ChargePoint recommends the CPUC revise or strike this language from the Rules.

ChargePoint also raises concerns with BVES's and Liberty's proposed participation requirements that would require customers taking service through the Rule to "demonstrate that they have secured the required customer-side equipment." ChargePoint flags that, as written, this requirement is vague, undefined, and could lead to customer confusion and increased administrative oversight. Most concerning to ChargePoint is the risk that this requirement could create an obstacle to the development of phased projects, in which the site-host intends to add EVSE on a schedule corresponding to demand growth. To alleviate these concerns, ChargePoint recommends the CPUC modify this language to state "*Require customers to submit an Evidence of Permit within 60 calendar days of the request for service date to avoid cancellation.*"

Another concern ChargePoint has with BVES's proposed participation requirements is the requirement that customers receiving service under the Rule be served on an applicable time-of-use (TOU) rate. ChargePoint argues that this requirement goes beyond AB 841 and Public Utilities Code (PU Code) Section 740.19(c), which makes no reference to requiring customers take service on TOU rates. ChargePoint acknowledges that while most customers may be on a TOU rate, exceptions are possible, and regardless, it is inappropriate to condition eligibility for Rule 24 on enrollment of any specific rate. ChargePoint recommends the CPUC reject BVES's proposed language that would require enrollment on a TOU rate.

ChargePoint also has concerns with BVES's and Liberty's proposed Examination of Current and Future EV Charging Needs section. ChargePoint argues the IOUs' proposals to not provide more than one EV Service Extension for a group of buildings on a single premise may inadvertently limit EV deployments in certain circumstances, such as hospitals with multiple parking lots, and limit a customer's option to deploy more EVSE as demand grows.

ChargePoint recommends the CPUC modify BVES's and Liberty's proposal to not preclude a customer from receiving multiple EV Service Extensions in these Rules.

ChargePoint also has concerns with BVES's and Liberty's proposal to require an applicant pay for all Environmental Studies and costs associated with Issue Mitigation. ChargePoint argues that requiring an applicant to bear the costs of studies for utility-owned, utility-side infrastructure runs counter to the intent of AB 841. They also argue that the term 'Issue Mitigation' is vague and overly broad and could subject an applicant to unreasonable risk. ChargePoint recommends the CPUC modify the IOUs' proposed language to remove the term 'Issue Mitigation' and to specify that the applicant shall not bear the costs of environmental studies.

Lastly, ChargePoint recommends additional language to both BVES's and Liberty's Rules, to clarify that the proposed Rules do not affect any additional customer incentives: *"**No Effect On Other TE Programs** Infrastructure provided pursuant to this Rule 24 does not alter or diminish the Commission's authority under Public Utilities Code section 740.12(b) (or any other similar statute) to direct electrical corporations to file applications for transportation electrification programs and investments, or to approve or modify the terms and conditions of such programs and investments."*

Liberty submitted responses to Cal Advocate's protest. In response, Liberty does not object to their recommendation to suspend the Advice Letters until the CPUC issues further guidance, stating that they believe Cal Advocates raises valid points and supports suspending the AL until the CPUC issues a decision to specify how Liberty, and the other IOUs, must implement the new Rule.

Neither BVES nor Liberty respond to ChargePoint's protest.

DISCUSSION

1. Assignment of Costs

Energy Division evaluated BVES's, Liberty's, and PacifiCorp's proposed EV Infrastructure Rules and determines that with modifications, the proposed costs assigned to the IOU/ratepayers and the costs assigned to the Applicant are consistent across IOUs, reasonable, and in compliance with AB 841.

All three IOUs propose establishing new optional Rules that would serve as an alternative to Rule 16 in the instance that new electrical service and distribution system upgrades are required if a customer installs separately metered EV charging equipment. Where Rule 16 requires some cost of new electrical service to be paid for by the customer receiving the service, the new EV Infrastructure Rules require all ratepayers, rather than the individual customer receiving service, to cover more of the costs of service line extensions and electrical distribution

infrastructure for separately metered EV charging for all customers, other than those customers in single-family residences.

The IOUs were largely consistent, with some minor variation, with which electric distribution costs they proposed their Rules would cover. These Rules are distinct from the treatment customers receive under Rule 16, as the EV Infrastructure Rules will require ratepayers to pay for more of their infrastructure costs than under Rule 16 (e.g. trenching, civic construction, etc.), as Section 740.19(b) creates a different definition of distribution infrastructure than what is used under Rule 16. The IOUs' proposals for their new EV Service Extensions were consistent with PU Code Section 740.19(b), which states that "electrical distribution infrastructure" shall include poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment as necessary, and associated engineering and civil construction work.[11]

While there are minor differences in language between the IOUs' proposals, the proposed Rules have a number of similarities with how the costs between the IOU and Applicant are allocated. Table 3 provides a high-level summary of the IOUs' proposals.

Table 3: Cost Comparison of IOU Proposals

	Proposed IOU Assigned Costs	**Proposed Applicant Assigned Costs**

BVES	• Excavation
	  ○ Trenching, backfilling, and other digging, including permit fees
	• Conduit and Substructure
	  ○ Furnishing, installing, ownership and maintenance
	• Protective Structures
	  ○ Furnishing, installing, ownership and maintenance
	• Underground Service
	  ○ From Distribution Line source to the Service Delivery Point
	• Riser Materials
	  ○ Pole riser material to connect underground
		• Route Clearing
		  ○ Removal of any obstructions on a route that would inhibit construction
		• Facility Design and Operations
		  ○ Plan, design, install, own, maintain, and operate facilities and equipment beyond the Service Delivery Point.
		• Required Service Equipment
		  ○ Furnish, installation, ownership, and maintenance all facilities not owned by BVES, including, overhead/underground termination equipment, conduit, service entrance

	services to an overhead distribution line
	• Overhead Service
	  o Overhead service conductors and support poles
	• Metering
	  o Meter, test facilities, associated metering, equipment, and metering enclosures
	• Transformer (pad mounted or overhead)
	  o Necessary switches, capacitors, electrical protective equipment, and other necessary equipment
	• Government Inspections
		conductors for service delivery point to BVES metering facility, connectors, meter sockets, meter sockets, meter and instrument transformer housing, service switches, circuit breakers, fuses, relays, wireways, metered conductors, machinery and apparatus of any kind or character
		• Coordination of Electrical Protective Devices
		• Liability
		  o For any damage, loss, or injury from applicant owned equipment/transmission and delivery of energy, or negligence or omission of proper protective devices
		• Facility Tampering
		  o Purchase and placement of BVES seals on meter rings and covers of service enclosures and instrument transformer enclosures to protect unmetered energized conductors installed by customer
		• Transformer Installation on Applicant's Premises
		• Building Code requirements
		  o For Applicant owned service equipment, including vault, room, enclosure, or lifting facilities.
		• Reasonable Care

		○ Prevention from damage, destruction, or interference of BVES owned equipment • Corrective Action ○ Where EV service facilities have become inaccessible or hazardous conditions exist or any object becomes impaired
Liberty	• EV Service Extension ○ Underground Service ▪ Service lateral conductors to supply permanent service from distribution line source to the service delivery point ○ Riser Materials ▪ Pole riser material to connect underground service to overhead distribution line ○ Overhead Service ▪ Set of overhead service lateral conductors and support poles to supply permanent service from a distribution line source to support at the service delivery point.	• Service Lateral Facilities ○ Route Clearing ○ Excavation ▪ Trenching, backfilling, and other digging as required including permit fees ○ Conduit and Substructures ▪ Furnishing, installing, owning and maintaining all conduits, including pull wires, and substructures ○ Protective Structures ▪ Furnishing, installing, owning, and maintaining all protective structures specified by Liberty • Facility Design and Operation ○ Plan, design, installation, ownership, maintenance, and operation of facilities and equipment beyond the service delivery point, excluding metering facilities • Behind the Meter Equipment

	○ Metering ▪ Test facilities, meters, associated metering equipment, metering enclosures, and necessary instrument transformers where required ○ Transformer ▪ Necessary switches, capacitors, electrical protective equipment, etc. • Special Conduit Installations ○ Only if service lateral conduits are 1) located in the same trench with distribution facilities, and 2) when it is necessary to locate conduits on property other than the customers • Government Inspection	○ Furnish, installing, owning, maintaining, inspecting, and keeping in good and safe condition, all electric distribution infrastructure beyond the utility meter, including EVSE and meter panel • Environmental Studies or Issue Mitigation • Coordination of Protection Devices • Liability ○ Damage, loss, or injury occasioned by Applicant-owned equipment, or transmission and delivery of energy, or negligence, omission of proper protective devices • Facility Tampering ○ Placement of Liberty seals on meter rings and overs of service enclosures and instrument transformer enclosures to protect unmetered energized conductors • Transformer Installations on Applicant's Premise ○ Applicant must provide space for a standard transformer, plus necessary switches, capacitors, and electric protective equipment • Padmounted Equipment ○ Furnishing, installing, owning, and maintaining substructures and any required protective structures for the proper

		installation of the transformer, switches, capacitors, etc. • Transformer Room or Vault o If Applicant requests a room or vault to house the transformer • Transformer Lifting Requirements o If transformer is installed at locations where Liberty cannot use its standard transformer lifting equipment, Applicant is responsible for furnishing, installing, owning, and maintaining permanent lifting facilities for lifting the transformer to and from its permanent position, or pay for Liberty to install or remove the transformer with portable lifting facilities • Overhead Transformers o If Liberty determines that it is not practical to install a transformer on a pad, in a room or vault. Applicant responsible for all costs except a pole-type structure for installations not exceeding 500 kVA. • Building Code Requirements o For any applicant owned service equipment, as well as vault, room, enclosure, or lifting facilities for transformer installation • Reasonable Care o Prevention from damage, destruction, or interference

		of Liberty owned equipment

PacifiCorp	• Excavation
	  ○ All necessary trenching, backfilling, and other digging, including permit fees.
	• Conduit. And Substructures
	• Protective Structures
	  ○ Excluding any decorative or custom protective structures
	• Conductors
	• Overhead
	  ○ Including, poles, guys, mounts, etc.
	• Metering
	  ○ Including meter and necessary instrument transformers
	• Transformer
	  ○ Including switches, capacitors, electrical protective equipment, etc.
	• Government Inspection
	• Rights-of-Way/Easements
		• Route Clearing
		• Applicant's Facility Design and Operations
		  ○ Planning, designing, installing, owning, maintaining, and operating all facilities and equipment beyond the Service Delivery Point – except for PacifiCorp owned metering facilities
		• Required Service Equipment
		  ○ Including, but not limited to, overhead or underground termination equipment, conduits, service entrance conductors from the Service Delivery Point to the location of PacifiCorp's meter facilities, connectors, meter sockets, meter and instrument transformer housing, service switches, circuit breakers, fuses, relays, wireways, metered conductors, machinery and apparatus of any kind or character.
		• Overhead
		  ○ Only responsible for providing an approved attachment for receiving any overhead service
		• Coordination of Electrical Protective Devices
		• Liability
		  ○ Damage, loss, or injury occasioned by Applicant-

		owned equipment, or transmission and delivery of energy, or negligence, omission of proper protective devices • Facility Tampering o Placement of PacifiCorp seals on meter rings and overs of service enclosures and instrument transformer enclosures to protect unmetered energized conductors • Building Code Requirements • Reasonable Care • Corrective Actions • Environmental Studies or Issue Mitigation

Each IOU proposes to be responsible for planning, designing, engineering, and installing necessary utility-side infrastructure for projects taking service under their Rule, including all metering equipment, transformers, poles, and undergrounding equipment. The Applicants taking service through the new Rule will be responsible for all costs associated with clearing routes, designing and maintaining customer-side infrastructure and site layout, all behind-the-meter equipment, environmental studies, building code requirements, measures to prevent facilities tampering, liability damage, and efforts to ensure reasonable care of the equipment.

BVES's Rule 24 proposal includes all electrical distribution infrastructure, as defined in PU Code Section 740.19(b)[6], within the IOU assigned costs category. Applicants taking service through BVES's Rule 24 would be required to pay and take responsibility for planning, designing, installing, owning, maintaining, and operating any facilities and equipment installed beyond the Service Delivery Point, and includes the costs associated with obtaining the necessary permits to receive and use the equipment. If BVES determines the Applicant's load is a sufficient size to require it, the Applicant will be responsible for the costs of providing coordination of electrical protective devices and BVES devices.

[6] Public Utilities Code section 7419(b): "For purposes of this section, the term "electrical distribution infrastructure" shall include poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment as necessary, and associated engineering and civil construction work."

Under Liberty's Rule 24 proposal, the IOU would be responsible for furnishing, installing, owning, and maintaining the EV Service Extensions equipment, which Liberty determines as the underground service, rise materials, overhead services, metering, and transformer, in addition to the costs associated with installing special conduit and government inspections. Liberty would require any Applicant taking service through the proposed Rule 24 to bear responsibility for all necessary trenching, backfilling, and other excavation work, including permit fees. The Applicant would also be required to furnish, install, own, and maintain all conduits, substructures, and protective structures installed on the Applicant's premise.

PacfiCorp's Rule 24 proposal would assign all costs associated with owning, installing, maintaining, and operating utility-side infrastructure to the IOU, including excavation, conductors, conduit and substructures, excavation, meters and metering equipment, overhead infrastructure, protective structures, and transformers. Additionally, PacifiCorp would bear responsibility with all costs associated with government inspections of utility-side infrastructure and right-of-way/easements. The Applicant would be responsible for all costs associated with owning, installing, maintaining, and operating equipment installed beyond the Service Delivery Point, including coordination of electrical protective devices, facility design and operations, liability, required service equipment, and route clearing. The Applicant is also responsible for associated costs, including any necessary corrective actions, facility tampering prevention equipment, meeting building code requirements, any necessary environmental studies and/or issue mitigation, and the necessary reasonable care.

In their protests to BVES's and Liberty's proposals, ChargePoint raises concerns with the IOUs' proposals to assign the cost and responsibility of Environmental Studies and Issue Mitigation to the Applicant, stating this would run counter to the intent of AB 841. ChargePoint also flags the vague and overly broad term "issue mitigation." ChargePoint recommends that the CPUC modify or remove the term "issue mitigation" and specify that the customer taking service under the Rules shall not bear the costs of environmental studies. Neither BVES nor Liberty responded to ChargePoint's protest on this matter.

While we considered ChargePoint's concerns that the IOUs' proposal to assign costs for Environmental Studies to the Applicant goes against the intent of AB 841, we find that the cost allocations are consistent with statute, and that the IOUs correctly assign the costs and responsibility to own and maintain all electrical distribution infrastructure as defined in Section 740.19(b). We agree with the IOUs' ALs that the environmental studies and issue mitigation costs should be assigned to the applicant. We do not find it to be in the interest of ratepayers to require them to cover additional costs related to these Rules, especially since these Rules will already shift costs from individual applicants to ratepayers as compared to the current treatment under Rule 16.

We share similar concerns as ChargePoint regarding the lack of clear definition of Issues Mitigation. The absence of a clear definition for what issues are assigned as the Applicant's as compared to the IOU's responsibility leaves the Applicant open to unexpected costs. To

alleviate this concern, we direct the IOUs to coordinate and develop a single definition for "Issues Mitigation" and a file a Tier 2 Advice Letter with a revised Rule including this modification.

In reviewing the IOUs' proposals, we find that BVES's and PacifiCorp's cost allocations are consistent with statute. BVES and PacifiCorp correctly assign the costs and responsibility to own and maintain all electrical distribution infrastructure as defined in PU Code Section 740.19(b). BVES's and PacifiCorp's Rules would require an Applicant to be responsible for infrastructure installed beyond the Service Delivery Point, or where the utility-side infrastructure connects to customer-side infrastructure, in addition to Required Service Equipment that is necessary to receive service from BVES's and PacifiCorp's distribution infrastructure, such as overhead/underground termination equipment, meter sockets, service switches, circuit breakers, etc.

Liberty's proposal, however, allocates some costs identified in PU Code Section 740.19(b) as utility-side distribution infrastructure to the Applicant. Liberty's proposal would require an Applicant to assume responsibility for all necessary trenching and backfilling, conduit and substructures, padmounting equipment, transformer room or vault, and necessary transformer lifting equipment installed on the utility-side and customer-side of the meter of the Applicant's premises. Liberty's proposal does not provide a justification for assigning these costs to the Applicant. PU Code Section 740.19(b) is clear that all costs associated with transformers, trenching, conduits, other equipment as necessary, and associated engineering and civil construction work, are to be considered utility-side electrical distribution infrastructure. It is not justifiable to require an Applicant to be responsible for the costs, ownership, and maintenance of these components to take service through the Rule. PU Code Section 740.19(a) explicitly states that "[EV charging] infrastructure and associated design, engineering, and construction work is to be considered core utility business, treated the same as other distribution infrastructure", while PU Code Section 740.19(b) defines this infrastructure as "poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, and other equipment as necessary, and associated engineering and civil construction work".

Therefore, through a Tier 2 advice letter, we require Liberty to modify their Rule 24 to assign the costs for excavation, trenching, and backfilling, conduit and substructures, padmounting equipment, transformer room and vault, and necessary transformer lifting equipment in addition to any other unspecified equipment owned by the utility and necessary for the installation of electrical distribution infrastructure to the utility. This modification will align Liberty's Rule with BVES's and PacifiCorp's cost allocation proposals. The Applicant will be responsible for all costs incurred beyond the Service Delivery Point, including facility design and operation for customer owned equipment beyond the Service Delivery Point, furnishing, installing, and operating all behind the meter equipment, and the associated liability, reasonable care, and governmental code and permitting requirements.

As described above, the IOUs must submit two ALs – one Tier 1 within 60 days addressing simple updates to the Rules, and one Tier 2 within 60 days addressing more complex issues. The IOUs should include the description of the term "issue mitigation" within the T2 filing, and the modification for Liberty regarding the cost assignment must be included in their T2 filing. These ALs will cover other outstanding issues related to implementation that this Resolution discusses.

Additionally, as the EV Infrastructure Rules are intended to provide an optional alternative for the existing Rule 16, it is important that an applicant has sufficient information regarding the benefits and costs to taking service through the different Rules to provide the applicant an opportunity to elect the most cost-effective and practical option to meet their specific service needs. Thus, we direct each IOU, within their Tier 1 AL, to provide a clear comparison of the costs and responsibilities that are assigned to the IOU and the customer for their existing Rule 15, Rule 16, and Rule 24 to all applicants requesting service through the new EV Infrastructure Rule.

2. Line Extension Length Limitations and Caps

The IOUs' language on the preferred route of the infrastructure provided is, with minor modifications, reasonable.

In response to the ACR, several parties speak out against limitations and length caps. ChargePoint urges the CPUC to avoid imposing arbitrary caps that could limit or delay investments. SCE is concerned about requiring arbitrary or prescriptive measures, as each site is unique, and some may not be able to practically or safely meet pre-established requirements. VGIC and Joint Commenters argue against overly prescriptive limitations as they do not believe they were consistent with AB 841. NRDC et al. agree in reply comments. No party advocates in favor of costs caps or length limitation.

None of the IOUs proposes a costs cap or length limitation, however, they each propose that on private property the EV Service Extension shall extend along the shortest, most practical and available route (clear of obstruction) as necessary to reach a Service Delivery Point designated by the IOU.

We agree with the many parties that submitted comments on the ACR in opposition to the concept of length limitations, in particular SCE's argument that any cap on the length of service line extensions is arbitrary. However, while we find that it is in the ratepayer interest to ensure that EV Service Extensions are deployed in an efficient manner to reduce costs to ratepayers, we recognize the need for flexibility to choose how the IOUs and customer decide to reach a service delivery point. Thus, the IOUs should modify their proposed language to say:

"On private property, along the shortest or most practical and available route (clear of obstruction) as necessary to interconnect a Service Delivery Point identified via mutual agreement between the IOU and Applicant."

Additionally, the IOUs should maintain final discretion to turn away a proposed project to avoid unreasonably high-cost projects. The IOUs should make these modifications to their Rules within the Tier 1 AL compliance filing.

3. Exclusion of Participants of Previously Approved TE Programs

It is reasonable to exclude participants of previously approved TE programs from the new EV Infrastructure Rules applicability, and additional language is needed to clarify this point.

The ACR proposed that the new Rules should not impact previously approved programs or programs currently under consideration as of the date of the ACR. The majority of the parties responding to this—CASMU, PG&E, Cal Advocates, SCE, SDG&E, TURN, NRDC et al., and ChargePoint—agreed with the proposal. SBUA agrees with the ACR that the new tariff or Rule should not impact cost recovery under previously approved programs, but suggested the CPUC consider programs under consideration as of the ACR date where it would not require a significant delay. PCE disagrees with this proposal and suggested that this approach would be inconsistent with AB 841, which has an effective date of January 1, 2021. PCE argued that the ACR gets this wrong by excluding infrastructure work pursuant to existing TE programs.

In their proposal, BVES states that Rule 24 is not applicable to customers who intend to participate in any existing BVES Charge Ready Programs.

Liberty's and PacifiCorp's proposals do not include any language concerning the applicability of customers participating in existing TE program taking service through their Rule 24.

ChargePoint's protests to BVES's and Liberty's ALs recommends the CPUC add a section to clearly state that the new Rule does not affect any additional customer incentives that may be provided through IOU programs. Specifically, ChargePoint recommends the CPUC direct the IOUs to include the following language:

> "**No Effect On Other TE Programs** Infrastructure provided pursuant to this Rule 24 does not alter or diminish the Commission's authority under Public Utilities Code section 740.12(b) (or any other similar statute) to direct electrical corporations to file applications for transportation electrification programs and investments, or to approve or modify the terms and conditions of such programs and investments."

While this language does not change the CPUC's existing authority, we see no harm in directing BVES, Liberty, and PacifiCorp to include this clarification. Within their Tier 1 AL, each IOU should modify their Rule to include the relevant language ChargePoint suggested.

Additionally, each IOU must add language to their Rule to clarify the limitations to applicability of their Rules. The CPUC has already reviewed and approved of the budgets, of the existing TE programs, including the utility-side costs, within proceedings. We agree with the party comments on the ACR that participants of these programs who are taking advantage of these budgets should not be applicable to take service under the Rules.

BVES should add language to clarify EVSE installed through their Bear Valley Destination Make-Ready Rebate program is not applicable under their proposed Rule. Liberty should add language to clarify that it will not be applicable to any EVSE installed through their Residential Make-Ready Rebate, Small Business Make-Ready Rebate, Bus Infrastructure, and AB 1082 & AB 1083 programs. PacifiCorp should add language to clarify EVSE installed through their Demonstration and Development Grant program is not applicable under their proposed Rule.

4. EVSE Operational and Installation Requirements and Upsizing the Capacity of EV Service Extensions

The IOUs' proposed EVSE eligibility language concerning the number of EVSE installed and minimum maintenance and operation duration is reasonable with some modifications.

Each IOU proposes the same eligibility language for taking service under their Rules. That is, the Rules would be open to all customers, excluding those in single-family residences, that install separately metered infrastructure for the exclusive use to support EV charging stations and incidental load. The customer would need to demonstrate proof of commitment to install qualified EVSE at a quantity approved by the IOU, in the IOU's sole discretion, and would be required to maintain and operate the EVSE for a minimum of five years.

On the matter of what EVSE qualifies under the proposed Rules, ChargePoint protested BVES's and Liberty's proposal to require an applicant install EVSE that the IOU must prequalify, stating "[the IOUs] [provide] no information as to what qualifications are required in order to be deemed 'qualified' EVSE, and further, [the IOUs] [provide] no basis upon which AB 841 requires EVSE to be qualified by the utility. Additionally, [the IOUs] [provide] no justification for [the IOUs] being able to determine 'in the utility's sole discretion' the [quantity] of EVSE". ChargePoint recommends the CPUC revise or remove BVES's and Liberty's language requiring qualified EVSE. While ChargePoint did not protest PacifiCorp's updated proposal in AL 649-E, PacifiCorp's proposal mirrors that of BVES and Liberty.

Each IOU proposals to require a customer install an EVSE that meets minimum qualification requirements. While the CPUC has typically required minimum EVSE standards to qualify for an IOU TE program, the IOUs' proposed language is vague and does not provide any guidance on what factors they will consider or the process they will use to determine whether an EVSE is qualified. Additionally, AB 841 and PU Code Section 740.19 makes no reference to requiring the Applicant purchase an EVSE model that meets minimum performance standards to take service through the new Rule. Finally, since the proposed Rules are intended to only cover utility-side

infrastructure, it runs counter to the intentions of the Rule to impose minimum performance qualification standards for customer-side equipment.

While we do not believe it is reasonable for the IOUs to determine minimum performance requirements for customer-owned EVSE, we do find it appropriate to require minimum safety standards for all equipment installed through these Rules. In 2018, the CPUC approved D.18-09-034, which, among other things, adopted the Small Utility Safety Requirements Checklist[7] for CPUC-Approved Transportation Electrification Programs (Safety Checklist). This Safety Checklist identifies minimum safety standards that all EV charging equipment must meet in order for a small IOU TE program to install it. We find the IOUs clarification that qualified EVSE requirements would only apply to safety qualifications to be reasonable. However, as written, the IOUs' proposed Rules are vague in this regard. Within their Tier 1 AL, the IOUs should each update their proposed Rule to align with safety requirements included in their Rule 15 and Rule 16, and to reflect the specific safety qualifications to which it is referring. If these safety qualifications go beyond, in any way, the requirements within the TE Safety Checklist related to utility-side infrastructure, the IOUs should include those qualifications as a proposal within their Tier 2 advice letter.

In regard to the issue of the IOUs' proposals to require Applicants install qualified EVSE in the quantity approved by the IOU, in the IOU's sole discretion, we agree with ChargePoint's position that the IOUs' proposals do not provide sufficient justification for providing the IOU sole discretion for the quantity of installed EVSE as the Applicant's desired quantity of EVSE may not always align with the IOU's. The IOUs' proposals fail to provide sufficient information on what criteria they will use to determine the number of installed EVSE allowed at each site. The IOUs' proposals are not clear if they intend to limit the Applicant to a minimum number of EVSE in an attempt to ensure economies of scale are achieved, limit to a maximum number of EVSE to limit the risk of stranded assets and/or unnecessary overbuilds, if they limit EVSE based on site-specific capacity limitations, or if they will include different criteria for this determination.

In comments provided on the ACR concerning upsizing distribution infrastructure capacity for future EVSE installations, party comments opposed any limitations. ChargePoint's ACR comments argue that the CPUC should not simply focus on short-term costs but recommends the tariffs allow for site hosts to future proof make-ready infrastructure, allowing for more efficient and cost-effective deployment of make-ready infrastructure. ChargePoint further recommends that the IOUs include an assessment of future charging needs to determine the design and capacity of make-ready infrastructure under the new tariff. ChargePoint also recommends that it could be useful to have a workshop to discuss future proofing. TURN's Reply Comments note that efforts to future proof sites by providing more infrastructure for

[7] See the small-utilities' Safety Requirements Checklist for CPUC-Approved Transportation Electrification Programs here.

future ports must be balanced with ensuring costs are reasonable and that the risk of stranded costs is mitigated.

We generally agree with party comments opposing limitations on the number of installed EVSE and associated electrical distribution capacity. While it is important to take necessary steps to avoid underbuilding and overbuilding infrastructure that could potentially require the IOU to install more capacity at a later time or become stranded or underutilized, we do not agree that the IOU should have sole discretion on making this determination. However, we do find it reasonable to provide the IOUs discretion to require the Applicant to install the quantity of EVSE for which the IOU designed the site to support, and direct each IOU to update this language within their Tier 1 AL to clarify that the IOU may require the Applicant to purchase the quantity of EVSE that the IOU designed the site to support.

Additionally, in their protest to BVES's and Liberty's AL, ChargePoint recommends the IOUs examine the current and future EV charging needs at the site when determining how many EVSE will be supported. ChargePoint recommends the CPUC authorize the IOUs to include an assessment of future charging needs in determining the design and capacity of make ready infrastructure under the Rule. ChargePoint expects that this will allow for customers to future-proof their make-ready infrastructure, and would allow for more efficient and cost-effective deployment of make-ready infrastructure to meet current and future EV charging needs as the site will not need to undergo additional trenching and site redesign if additional EVSE are desired in the future.

We agree with ChargePoint that allowing the IOU to upsize an Applicant's site capacity for future EVSE installations can avoid costly construction and upgrades costs in the future, while providing the Applicant with certainty that they can install additional EVSE as demand for EV charging grows, as we expect will occur. However, the IOUs must balance the installation of extra distribution infrastructure capacity with avoiding the installation of potentially underutilized, stranded assets. Within their Tier 2 AL, each IOU must propose language to offer an Applicant the option to build capacity beyond the immediate EVSE need. The IOUs' proposed language must require the Applicant to (1) commit to install additional EVSE in the future, (2) the approximate number of EVSE and the related additional electric capacity, they plan to install, and (3) when they expect to install the additional EVSE.

Within their Tier 2 AL, each IOU must describe its plan for future proofing. This should include, (1) a description of how it will confirm the customer fulfilled its commitment to install the additional EVSE within the five-year timeframe, (2) the penalty for non-compliance with this commitment, and (3) how the IOU will enforce this penalty.

Additionally, given the State and CPUC have many energy policy objectives—behind-the-meter storage, solar, building electrification, transportation electrification, etc.—it is critical that the IOUs coordinate their efforts to implement the EV Infrastructure Rules with these other policy

areas. We must understand any potential impacts to other energy policy objectives, including cost shifting or load impacts that may result from providing higher subsidies to transportation electrification.

Within the Tier 2 AL, the IOUs should additionally identify areas of coordination across energy programs, and describe how the IOUs will align all future electrification upgrades to streamline the process for customers, support multiple clean energy objectives, and reduce costs for both customers and ratepayers.

Finally, while the IOUs do not elaborate on the reason for adding a requirement that the Applicant maintain and operate the EVSE for at least five-years, we interpret this as a measure to protect against stranded assets. In previous ratepayer funded TE programs, the CPUC has required the IOUs to ensure the installed EVSE is maintained and operational for at least eight to ten years. While ratepayers will not pay for customer-side infrastructure in the proposed Rules, they will still bear responsibility for the costs of the utility-side distribution infrastructure to support the customer-side infrastructure. This makes it essential for the Applicant to maintain the customer-side infrastructure for a minimum time period to reduce the risk of stranded or underutilized ratepayer funded assets.

As no ratepayer funding will go towards the purchase and maintenance of customer-side infrastructure, and because the Applicant will be responsible for procuring the customer-side infrastructure on its own, we find the IOUs' proposed five-year requirement to be reasonable. This requirement ensures some protection against stranded assets and will allow customers additional flexibility beyond the eight- to ten-year EVSE maintenance requirement for TE program participants. However, the IOUs plan to enforce this requirement is not clear. Within their Tier 2 AL, the IOUs should describe how they will confirm customers will install and continue to maintain the EVSE for at least five years.

5. Definition of EV

The IOUs should align the definition of EV included in their EV Infrastructure Rules with the definition adopted in D.20-09-025.

Within their proposals, the three IOUs all proposed similar definitions for an EV. They each propose to define an EV as:

"*[A]ny vehicle that utilizes electricity from external sources of electrical power, including the grid, for all or part of vehicles, vessels, trains, boats, or other equipment (e.g. aircraft, forklifts, port equipment) that are mobile sources of air pollution and greenhouse gases.*"

The ACR had proposed that the reference to "electric vehicles" in Section 740.19 should align with the definition in D.20-09-025, which includes light-, medium-, and heavy-duty EVs, off-road EVs, and off-road electric equipment. On page 20 of D.20-09-025, the CPUC concludes that Public

Utilities Code sections 740.2, 740.3, and 740.12 referencing EVs in fact "applies to light-, medium- and heavy-duty electric vehicle charging services, and off-road electric vehicle or off-road electric equipment charging services."

No party opposed the ACR's proposal to adopt this definition. Six parties—SCE, SDG&E, NRDC et al., TURN, Joint Comments, and PG&E—all express support for using this definition. SCE states that the definition the CPUC proposed in the ACR and which is included in D.20-09-025 is the current definition used in the IOU's Rule 1 tariff. TURN agrees with the proposed definition, but cautions that the broad definition of EVs, coupled with the broad definition of electrical distribution infrastructure included in PU Code Section 740.19 may result in significant increases in utility-side distribution costs for ratepayers. TURN further cautions that the broad definition of off-road EVs and off-road electric equipment could unnecessarily increase the number of customers taking service through the Rules, which will have further impacts to ratepayers.

We agree with the parties that commented on this proposal within the ACR, and direct each of the IOUs, within their Tier 1 AL, to modify their Rules to include the referenced definition of EVs from D.20-09-035.

6. Implementation Timing of New EV Infrastructure Rules

It is reasonable to set an implementation date for the new EV Infrastructure Rules to be available to customers.

While BVES's and PacifiCorp's proposals did not include a specific date for when they will establish and allow Applicants to take service through their proposed Rules, Liberty's proposal requests to "launch and make Electric Rule 24 available to customers at least six months after the Commission's approval of [their] advice letter." Liberty explains that its request for a six-month implementation period is necessary to "conduct the appropriate training, update or establish new internal processes and procedures, and modify existing accounting systems based on the Commission's final disposition of [their] advice letter and the proposed tariffs."

In comments filed in response to the ACR, parties generally request that the CPUC quickly approve the IOUs' ALs to allow customers to take service through the proposed tariffs as soon as possible.

Liberty's request to allow for six-months after CPUC approval of the proposed ALs to implement the new Rule is consistent with parties requests for swift approval and implementation of the proposed Rules, given that this Resolution requires IOUs to make a number of modifications to their proposed Rules. We believe it is prudent to provide the IOUs with sufficient time to develop a strategy to implement their Rules to ensure they are able to adequately and effectively meet customer demand once the Rule is available.

We also want to ensure that the IOUs do not delay implementation of these Rules beyond the six-month period. The timeframe provided in PU Code Section 740.19(c) for IOU development and CPUC approval of the new Rules makes it clear the IOUs should have the new Rules available to customers as soon as possible. Therefore, we direct BVES, Liberty, and PacifiCorp to allow customers take service under their new Rule no later than six months, or more specifically, 180 days after approval of this Resolution. Each IOU must provide notice to the DRIVE OIR service list[8] once they make the new Rule available to customers. If an IOU is unable to implement its new Rule within 180 days of approval of this Resolution, pursuant to Rules of Practice and Procedure 16.6, the IOUs may request an extension of time to comply with this requirement. If requesting an extension, the IOU must notify the DRIVE OIR service list, and 1) provide justification for why it is unable to meet this deadline, and 2) how much extra time it will need to make the new Rule available to customers.

7. Waiver of Customer Contribution Requirements

It is reasonable to waive any customer contribution for customers taking service under the new EV Infrastructure Rules at this time.

PU Code Section 740.19(c) states that "[t]he new tariff shall replace the line extension rules currently used (as of July 1, 2020) and any customer allowances established shall be based on the full useful life of the electrical distribution infrastructure." In response to this portion of AB 841, the ACR proposed that the new Rules or tariffs addressing utility-side distribution infrastructure related to EV charging should no longer include an allowance structure that would require a contribution by customers if project costs exceed the set allowance amount. However, the ACR sought party comment on this interpretation.

Four parties disagree with the ACR's proposal to not require customer contributions—UCAN, TURN, SBUA, and Cal Advocates—arguing that the statute allows for customer contributions and that customer contributions would benefit the new policy. UCAN expresses concern that, based on data SDG&E submitted in response to the ACR, ratepayer subsidies would increase by 135 percent for a two port DCFC ($40,000 under the new Rule vs. $17,000 under Rule 16) and 378 percent for a 12-port Level 2 site ($43,000 under new Rule and $9,000 under Rule 16), resulting in more than double and quadruple the current utility contribution if an allowance structure is not adopted. UCAN argues that allowances can still be part of the new Rules as long as the CPUC determines they are reasonable and based on the full useful life of the infrastructure. UCAN also recommends the CPUC create a robust record to determine reasonable line and service extension allowances. SBUA argues that the ACR misinterprets the statute based on the language that the infrastructure "should be treated like those costs incurred for other necessary distribution infrastructure."

Cal Advocates and TURN each propose separate allowance and customer contribution structures. Cal Advocates proposes that within one year, the IOUs should file an AL to establish

[8] R.18-12-006

allowances based on kW categories. Under this proposal, sites would be categorized based on their kW capacity and each category would be assigned an allowance based on the typical site costs for that kW capacity range to cover all utility-side costs. Due to a lack of current information to determine the necessary allowance amounts, Cal Advocates agrees that the IOUs should initially cover all TE related utility-side costs. However, Cal Advocates suggests that after a year its proposal for kW site categories and allowances would be established to cover all utility-side costs for a 50th percentile-cost site of that kW capacity, excluding sites that do not require upgrades and allowing underserved community sites to be based on the 75th percentile. TURN proposes adopting the customer allowance methodology from Rules 15 and 16, but expanding the distribution infrastructure covered by the allowance to conform with Section 740.19(b).

Ten parties—AEE, PG&E, SCE, VGIC, SG&E, Joint Commenters, NRDC et al., ChargePoint, Tesla, and Electrify America—argue in favor of the ACR's proposal that the IOUs should not require customer contributions under the new Rules.

AEE, SDG&E, and NRDC et al. argue that customers will still have an incentive to manage costs as they will still be responsible for the behind-the-meter make-ready investments. SDG&E states that the existing allowance typically covers five to ten percent of the total cost of an EV charging site, that the new Rule should increase the IOU's contribution to roughly 25 percent, and that the high customer contribution required behind-the-meter will provide ample "skin in the game."

PG&E, SCE, Tesla, and ChargePoint argue that a requirement for customer contributions does not align with the intent of AB 841. SCE argues that while AB 841 does not preclude the establishment of customer allowance, SCE does not believe it was the intent of the Legislature.

Joint Commenters acknowledge that the statute allows, but does not require, customer contributions and that the CPUC can revisit the policy later if it is deemed necessary. If the CPUC determines that the practice of no customer contribution is no longer reasonable before it completes the next GRC cycle, the CPUC could direct IOUs to revise the Rules they adopt.

In reply comments on the ACR, several of these parties speak about the proposals for customer contributions from TURN and Cal Advocates. In response to Cal Advocates' proposal, AEE argues that its proposed methodology is imprecise and arbitrary and that even Cal Advocates notes that there is not currently enough cost data. PG&E argues the proposal is unnecessary, premature, and contrary to AB 841, as a component of AB 841 is simplifying the process for applicants and creating transparency. Joint Commenters caution against Cal Advocates' proposal to establish allowances because it would be inappropriate for the CPUC to act on the basis of data that is yet to be collected. NRDC et al. argues that the proposal would mean roughly half of all sites would not have their full costs of installation covered, which would risk unintentional consequences for furthering equity goals.

In response to TURN's proposal, AEE asserts that TURN misinterprets the statute, as it only sets conditions for allowances should the CPUC decide to require them. It does not direct or obligate the CPUC to establish allowances. NRDC et al. argues a similar point that while AB 841

contemplates the establishment of allowances it would be wrong to say it directs the establishment of allowances and that it is unclear where TURN derives such a reading. ChargePoint states that an interpretation that would simply change the definition of covered infrastructure while keeping the Rule 15 and 16 customer contribution requirements, as is TURN's proposal for customer contributions, does not square with the language or intent of AB 841.

SCE states that if the CPUC determines that allowances are appropriate, the CPUC should allow time for additional comment and assessment to better understand the potential benefits and impacts of any new requirement. SCE also expresses concern that a complex allowance process may be confusing for applicants and administratively burdensome.

Within their ALs and proposed Rules, none of the IOUs propose customer contributions. In its protest on the ALs, TURN again advocates for the incorporation of customer allowance, and argues that if no allowance is adopted, a cost containment measure like those proposed within the ACR are necessary. Cal Advocates also addresses the outstanding issue of customer allowances within its protest to each of the ALs.

It is clear that PU Code Section 740.19 gives the CPUC the option to implement or not implement customer contributions. We agree with SCE's point that additional comment and assessment would be necessary to adopt any allowance structure, as well as concerns AEE and Joint Commenters express that there is currently insufficient data to support Cal Advocates proposal. While we elect not to modify the IOUs' proposals to include customer contributions in this Resolution, we agree with Cal Advocates, TURN, UCAN, and SBUA that customer contributions are allowable under the statute.

As UCAN argues, allowances can still be part of the new Rules as long as they are reasonable and based on the full useful life of the infrastructure. However, a robust record to determine the reasonable line and service extension allowances is still necessary. As such, we do not adopt customer allowances under the new Rules as additional data is needed to inform the development of an allowance structure. The CPUC may incorporate a customer allowance in the new EV Infrastructure Rules in the future after evaluating the Rules, if necessary. We find it reasonable to direct the IOUs to collect data from the implementation of the Rules to inform any future potential allowance structure. Consistent with Section 740.19(c), any future allowance structure would not occur until after the completion of the IOUs' next GRC cycle. For any allowance structure that these EV Infrastructure Rules may incorporate in the future, the IOU should consider the following criteria:

- Per 740.19(c), the allowances must be based on the full useful life of the infrastructure.
- Electric Rules 15 and 16 already have a vetted allowance structure that may, that in part, may be useful in the development of the EV Infrastructure Rules' allowances.
- Limitations that the Rules 15 and 16 allowances have for the EV Infrastructure Rule use case; in particular, Rules 15 and 16 calculate allowances based on

expected load, and the initial expected load from new EVSE may be lower in early years; additionally, Rules 15 and 16 primarily address service line extensions whereas service line extensions and service line upgrades are considered in the EV Infrastructure Rules.

- How load management, including automated load management (ALM), may impact the allowance value and the total expected grid impact and/or revenue resulting from the installation of EVSE.
- Facilities in underserved communities may require higher levels of ratepayer support.
- The IOUs should coordinate with multiple EVSPs, ratepayer advocates, and environmental justice/community organizations.
- The IOUs should consider how they may treat participants of TE programs differently than customers installing EV charging outside of TE programs.

8. Timeline for Evaluation of EV Infrastructure Rules

It is reasonable to authorize the IOUs to implement the new EV Infrastructure Rules for a limited timeframe, consistent with AB 841.

PU Code Section 740.19(c) established the timeframe that the CPUC should follow to evaluate the IOUs' proposed Rules, stating "[t]he commission may revise the policy described in subdivision (a) and this subdivision after the completion of the general rate case cycle of the electrical corporation following the one during which the advice letter was filed if a determination is made that a change in the policy is necessary to ensure just and reasonable rates for ratepayers."

In their comments responding to the ACR's question asking whether the IOUs' policies should continue indefinitely until the CPUC revises them, TURN, citing the potential for unnecessary risk to ratepayers, recommends that the CPUC should evaluate the impacts of the IOUs' policies at the end of each IOU's GRC cycle to determine if a policy change is necessary.

To the question of interpreting the statue's language of "the general rate case cycle of the electrical corporation following the one during which the advice letter was filed", the status is as follows:

- PG&E's next GRC cycle will end in 2026
- SDG&E's next GRC cycle will end in 2027
- SCE's next GRC cycle will end in 2028
- BVES's next GRC cycle will end in 2028
- Liberty's next GRC cycle will end in 2028
- PacifiCorp's next GRC cycle will end in 2028

While the timing for a permanent change, per statute, would not occur until after the 2027, 2028, and 2029 GRCs respectively, it is critical that we begin evaluating these policies earlier. The expected EV load growth over the next several years and the unknowns around the impact to ratepayers justifies us to begin evaluating the programs sooner.

The CPUC may begin evaluating the Rules all at once in 2025 after the completion of SCE's current GRC cycle in 2024, or may choose to evaluate the programs individually after the completion of each of the IOUs' current GRC cycles respectively[9]. Any modifications to the Rules resulting from these evaluations would go into effect after the following GRC cycle, per statute.

Evaluating the IOUs' policies together has the benefit of reducing demand on staff and stakeholders and provides the benefit of allowing us to compare the costs and effectiveness of each policy. However, we understand there may be a need to evaluate these policies one by one. Thus, it is reasonable for the CPUC to begin the evaluation of the Rules by January 2025.

CASMU's response to the ACR highlights the concern that the policies would lead to an increase in costs for customers. CASMU elaborates that they expect the policies would have a similar trend as the state's solar policies, where more affluent customers adopt the technology first, shifting the costs to install the infrastructure onto low- and moderate- income customers. CASMU caution that the potential for these types of cost shifting could be problematic in the CASMU service territories.

None of the IOUs include a provision to their proposed Rules to acknowledge that the new Rule may be revised after the completion of their next GRC cycle. However, we find it necessary to include language that acknowledges PU Code 740.19(c)'s provision that allows for the CPUC to reevaluate the IOUs' proposed Rules at the end of their GRC cycle, following the cycle which the IOU filed the AL. This is especially pertinent given that the policies proposed by each IOU have the potential to have significant cost impacts on electric ratepayers.

Therefore, within their Tier 1 AL, each IOU must add a timeframe clause into the applicability section of their Rules to inform customers that the CPUC may begin an evaluation of the Rule no later than 2025, and may make modifications to the Rules that would go into effect after the completion of the IOU's GRC cycle, following the one during which the AL was filed. The IOUs should make the modification around the timing of the evaluation within their Tier 1 AL compliance filings.

[9] PG&E's current GRC cycle ends in 2022, SDG&E's ends in 2023, and SCE's, BVES's, Liberty's, and PacifiCorp's ends in 2024.

9. Tracking and Reporting Cost Data for GRC Review

It is reasonable for IOUs to report costs within Memorandum Accounts in a granular manner to allow for appropriate review of costs within the IOUs' GRCs.

The ACR posted that Section 740.19(b) and 740.19(c) require IOUs to track and report cost data in a new manner, as the statue expands the definition of electrical distribution infrastructure for the purpose of EV charging compared to utility-side distribution costs covered under the IOUs' Rule 16.

There are two distinct but related issues related to collecting costs associated with the new Rules: (1) data to evaluate the reasonableness of IOU spending in order to authorize cost recovery within the next GRC and (2) data collection to evaluate the effectiveness of these Rules in meeting state TE goals. The second issue will be addressed in the following section of this Resolution.

The ACR discussed the nature of revised cost tracking within the new Rules, and proposed a set of minimum data collection requirements, which are as follows:

1. Common methodology for isolating costs associated with EV charging that may not previously have been isolated (e.g., how to allocate trenching costs to EV charging for a site that was making multiple upgrades and how to allocate design and permitting costs for projects).
2. Common cost category definitions for poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment used, and associated engineering and civil construction work, as described in statute.
3. Common cost categories for anything else the IOUs propose to track, avoiding duplicative categories.
4. Reporting on the cost of each upgrade made under the new policy.
5. Any cost reduction options offered to each customer (e.g., vehicle-grid integration strategies).
6. How much charging and which power level(s) was installed per site installation.
7. Total new EV charging within the IOU's territory as a result of the AB 841 expenditures and reporting of any publicly available charging to the relevant public databases.
8. Whether charging at the site receiving the expenditure is public or private.
9. Average amount of cost to ratepayers resulting from the new AB 841 Rule, on a per customer basis, if assuming that customer contributions to the utility-side expenditures are eliminated.
10. Whether the customer's site is located in a DAC, in another designation underserved community, or neither.

Several parties' comments focus on the ACR's proposal for minimum cost data collection requirements and how data will be used to determine the reasonableness of IOU spending in a GRC.

Several parties argue for the IOUs to collect and report cost data to ensure reasonable expenditures. ChargePoint argues that the IOUs' memorandum account cost reporting should only include items relevant to the reasonableness review and other reporting should be kept within the Transportation Electrification Framework process. NDC agrees that there is a need for more accurate cost tracking to ensure that IOU expenditures are reasonable and minimized. NDC supports the minimum data tracking requirements provided in the ACR.

A number of parties support a more granular approach to data collection—SBUA, UCAN, Electrify America, TURN, PCE, NDC, and Cal Advocates—and several also propose additional clarification or additional data categories. Electrify America generally agrees with the ACR's proposed data categories since the shift to reviewing costs in a GRC raises concerns that the ability to track the net gain EV charging activities provide will be subsumed in a GRC. Electrify America argues that the importance of tracking and identifying EV costs assumes greater importance. Cal Advocates agrees with the proposed data collection requirements, and argues that contrary to SCE's allegations, tracking data on a site-by-site basis is necessary for the CPUC to evaluate whether to consider future revisions to the Rule. SCE's confidentiality concerns can be addressed through submission of material under a claim of confidentiality. PCE agrees with the need for transparency and increased granularity of data reporting.

TURN, while supportive of the ACR's data proposal suggests several modifications, recommends that the metric "how much charging and which power level(s) was installed per site installation" should be modified to specify that the number of ports to be installed at the site must be reported, including the type of charger for each port and the max power level for each charging level. TURN is highly supportive of the need for site level data.

NDC argues that despite the arguments from some parties that assert the CPUC does not have authority to require cost reporting, the CPUC has a clear responsibility to regulate and restrain IOU expenditures for the public benefit, and broad authority to interpret and enforce statutory mandates to affect this purpose. NDC argues that the IOUs have a strong financial motivation to incur as much capital expenditures as they can. NDC argues the new authorization will likely be in effect perpetually, and that the CPUC and ratepayer advocates must have detailed and accurate information on these expenditures in order to effectively evaluate whether costs have been reasonable and minimized. In particular, NDC supports the following recommended data requirements--(1) IOUs must report on any cost reduction options offered to each customer (e.g. VGI strategies); (2) IOUs must report on whether charging at the site receiving the expenditure is public or private; (3) IOUs must report on whether the customer's site is located in an underserved community, and which AB 841 criteria applies.

NDC additionally recommends requiring the following reporting details recommended by TURN: type of site (workplace, fleet, MUD, etc.); number of low-income (CARE eligible) customers served by the infrastructure; source and amount of public funds used to support the project, if any; amount of customer contribution to distribution infrastructure costs in excess of line extension allowance, if any; total cost of installation; utilization data upon request by parties for each site (anonymized).

Several parties are opposed to granular cost reporting. PG&E argues that EV infrastructure costs must be treated no differently than any other distribution costs—recovery of forecasted costs through a GRC without additional reasonableness review. SCE argues that it is reasonable to conclude AB 841 requires IOUs to track and report additional costs specific to the expanded definition of utility distribution infrastructure, but it does not require the IOUs to provide granular tracking and reporting that identifies individual material, equipment, and civil and other costs identifies as electrical distribution infrastructure. SDG&E argues that the CPUC should not require the IOUs to report costs at a site-specific level, as many anticipated utility labor and material costs are incurred on an ongoing basis and are not readily attributable to a specific project or site. Joint Commenters argue that the ACR's proposed data collection requirements include items that do not appear relevant to the reasonableness review the CPUC will conduct under AB 841, and that the CPUC should only require reporting relevant to its reasonableness review and other reporting requirements should be in the TEF process.

In their Reply Comments to the ACR's question, TURN urges the CPUC not to be swayed by the IOUs' assertions that data tracking is unnecessary or too challenging. TURN continues that the IOUs should track costs closely to make a reasonable forecast in the GRCs. TURN further argues that the CPUC has long held that IOUs have the burden to establish the reasonableness of all aspects of their requests for rate recovery and the cost tracking recommended in the ACR and proposed by parties is consistent with this requirement and will likely help the IOUs establish more realistic forecasts in the future.

We have heard the many party concerns around how a robust data collection process could delay implementation of this AL and concerns that data should focus on information that can support determination of a reasonableness review, which is why we are addressing the two components of data collection—reasonableness and information for future TE evaluation—separately. It is essentially that the CPUC and stakeholders are able to evaluate the IOUs costs to ensure they are that the costs do not exceed an expected appropriate level of spending for each specific cost category. In order to properly conduct this evaluation and determine reasonableness of costs, we see value in directing the IOUs to take a granular approach to cost data reporting within their Memo Accounts.

We do not agree with the IOUs' and Joint Commenters' assertion that this does not require granular tracking on a site-specific level. We take particular issue with SDG&E's statement that many anticipated utility labor and material costs are incurred on an ongoing basis and are not readily attributable to a specific project or site. This is unacceptable. It is imperative that all of

the IOUs do attribute all labor and material costs to individual sites as these costs are treated differently under their EV Infrastructure Rules than under other Rules. Further, understanding the individual site-by-site expenditures is imperative to understanding the reasonableness of the expenditures. There can be vast variance on cost from site to site, and the CPUC staff and stakeholders reviewing the Memorandum Account costs within the GRC proceeding must be able to understand why some sites might have an exceptionally high cost compared to others.

While some of the ACR's proposed data requirements are more relevant to the data related to evaluating the policy's impacts and will be discussed in the next section, several of the proposed requirements are adopted here. Within their Tier 1 AL the IOUs must (1) submit proposed common cost category definitions for poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, associated engineering and civil construction work, and other equipment and labor that the IOUs will cover under their new Rules, and (2) submit common cost categories for anything else the IOUs propose to cover under the Rules. The IOUs will use these costs categories to uniformly track costs associated with the new Rules within their Memorandum Accounts. There should not be variation between the IOUs' cost categories.

Within their associated Memorandum Accounts, the IOUs must include, at minimum, the following cost categories:

(1) Total labor and material costs on a per-site basis;
(2) Site specific costs for each of the following spending categories: poles, vaults, service drops, transformers, mounting ads, trenching, conduit, wire, cable, meters, associated engineering and civil construction work, and other equipment that the IOU will cover under their Rule;
(3) Site-specific costs for anything additional costs covered under the new Rules;
(4) The total number of charging ports and their supporting cabinet power level, as included in the customer's application ;
(5) The total installed capacity (kW) at the time of the installation for the site;
(6) How much, if any, additional capacity (kW) was installed for future EVSE deployment.
(7) Total construction overhead cost per site.

The IOUs must use these costs categories to uniformly track costs associated with the new EV Infrastructure Rules within their Memo Accounts. The IOUs must not have any variation between their definitions of cost categories. The IOUs must additionally (1) submit proposed common cost category definitions for poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, associated engineering and civil construction work, and other equipment and labor that the IOUs will cover under their new Rules, and (2) submit common cost categories for anything else the IOUs propose to cover under the Rules. The IOUs will use these costs categories to uniformly track costs associated with the new Rules within their Memorandum Accounts. There should not be variation between the IOUs' cost categories.

While the statute defines electrical distribution infrastructure in these terms[10], the IOUs may use different terminology. The IOUs should work with Energy Division staff on creating a single, state-wide definition of these terms to ensure consistency across IOUs as well as accurate and efficient tracking of costs. The IOUs must submit these proposed cost category definitions within their Tier 1 ALs.

The Tier 1 ALs should additionally include the updated Preliminary Statements for the new Memo Accounts. Review of these Memo Accounts will take place in a future GRC proceeding.

10. Tracking and Reporting Cost Data for Programmatic Evaluation

Additional cost reporting through a new Joint Small IOU EV Charging Infrastructure Cost Report will provide useful data to track the effectiveness and affordability of the EV Infrastructure Rules in accelerating TE.

As mentioned in the previous section, this Resolution identifies two distinct but related data collection issues. We discussed the IOUs track costs within their Memorandum Accounts and will now discuss what, if any, additional data collection is necessary for the CPUC and stakeholders to evaluate the effectiveness of their Rules in meeting State TE goals, accelerating the speed at which the State deploys EV charging infrastructure, and evaluating the overall impact to ratepayers.

Within comments on the ACR, several parties suggest that the CPUC address additional data requirements within the DRIVE proceeding, or are generally supportive of streamlining TE data collection. ChargePoint supports the ACR's proposal for the IOUs to submit a common proposal for data collection as consistency will simplify implementation and oversight. ChargePoint notes that the proposed minimum data collection items appear to be a good starting point, but it may be necessary to authorize variations or additions to accommodate IOU-specific variations. VGIC supports colleting additional information on costs, as the ACR proposed. PCE agrees that transparency is needed on infrastructure upgrade costs and agrees with the concept of a common framework for data collection on costs. PCE further supports using the Joint IOU EV Charging Infrastructure Cost and Load Report, which is jointly submitted by the large IOUs annually. TURN and UCAN both agree that while Section 740.19(c) mandates reasonableness review of the costs incurred during the current GRC cycles, the annual reporting and tracking of these costs should occur in the DRIVE rulemaking. TURN further suggests, and UCAN agrees, that these annual reports include a reference to which chapter of the GRC testimony the IOU will address the reasonableness of the costs.

Parties provide suggestions of refinements to the proposed data collection metrics and suggestions of additional data for the IOUs to collect. AEE suggests that data on cost reduction options the IOUs offer and EV charger power levels could help stakeholders better understand

[10] See definition of electrical distribution infrastructure in Section 740.19(b)

the relationship between make-ready costs and technologies deployed. UCAN is especially supportive of tracking costs above those that IOUs normally pay for line and service extensions. Electrify America recommends that the CPUC clarify that the data collection does not require the collection of confidential or proprietary business information from vendors, and also requested clarity in defining the scope of the average amount of cost to ratepayers resulting from the new Rule, on a per customer basis. The question remains whether the average cost to ratepayers should be tracked within specific customer classes or in the context of all ratepayers. Cal Advocates agrees with the ACR's proposed data collection requirements, and recommends (1) on the metric "average amount of cost to ratepayers resulting from the AB 841 rule, on a per customer basis," the CPUC should clarify that data will be required on a per customer site basis rather than per customer. Cal Advocates further pushes for the collection of EVSE deployment and behind-the-meter cost data, a suggestion PCE supports and ChargePoint finds irrelevant to the implementation of AB 841.

Several parties, including PCE, are critical of the IOUs' assertion that site-level cost data is unnecessary. PCE argues that the current IOU Infrastructure Cost and Load Report does not provide the level of detail needed to evaluate the reasonableness of IOU distribution infrastructure upgrade costs. PCE further states that detailed data collection and reporting requirements are already a mandated under the CEC's CALeVIP program and it has not posed a barrier to participation.

Several parties also express concern that any data collection requirements not delay the implementation of the EV Infrastructure Rules. NRDC *et al*. supports accurate and thorough cost reporting, but notes that the process for establishing this framework should not delay the IOUs' implementation of AB 841. NRDC *et al.* suggests that the IOUs submit a common framework for data collection that takes effect when each IOU files its next GRC given there is insufficient time to develop a common proposal for data collection. AEE is similarly supportive of IOUs tracking costs, but critical that any framework not delay the implementation of AB 841. PCE agrees that the finalization of the cost tracking framework should not delay implementation of AB 841.

PG&E is critical of additional data requirements, like the other IOUs. PG&E states that data should be discussed collaboratively among CPUC staff, stakeholders, and IOUs and not required as a condition of approval of this Rule. SCE is also critical of additional data requirements, but suggests that the CPUC consider an approach similar to the one adopted for tracking and reporting costs for the Mobile Home Park Pilot Program,[11] which requires an annual report that includes the total number of mobile homes converted for the year and information on the IOU's utility-side capital costs. SCE asks that if new cost tracking is necessary, that the CPUC clarify that the IOUs be allowed to aggregate information and not provide site specific data and should direct the IOUs to collaborate on a common framework.

[11] R.18-04-018

None of the IOUs proposed data collection metrics within their proposals, or stated that they plan to submit a common proposal in the future.

Parties raise valid concerns about streamlining data collection and reporting through the DRIVE proceeding, both to improve the data we receive and to reduce the burden on IOUs and stakeholders in reviewing too many data reports. That said, we also understand party concerns that the development of a data collection template could delay the implementation of the IOUs' Rules. We strongly disagree with the assertions that data collection and reporting associated with these Rules are not necessary. As AB 841, SB 350, in addition to other legislative actions to further TE have made clear, TE is a top priority for the State. As such, it is critical that we measure our progress in meeting these TE goals. Data can provide us a clearer picture of what strategies and investments are working to meet our TE goals and what strategies and investments are less effective. This information will allow us to tailor the CPUC's TE policies towards the strategies that more effectively and swiftly accelerate TE.

Given these concerns and the fact that the IOUs did not submit a common proposal for data collection on their own, this Resolution directs Energy Division staff, in consultation with the IOUs and other stakeholders as necessary, to finalize a data collection template related to the Rules and based on the ACR's proposed minimum data collection requirements and party comments. Further, Energy Division staff should strive to align the data reporting requirements with the CEC's CALeVIP program, to the extent feasible and practical. This can help ensure better coordination and transparency of cost data across agencies.

When finalized, Energy Division staff will notify the DRIVE service list and include a link to the template on the CPUC's website. Energy Division staff should finalize this template prior to the IOUs beginning to offer service under their Rules, no later than 180 days after the adoption of this Resolution. Energy Division staff will determine if updates to the data template are necessary annually when the CPUC does its interim evaluation the Rules at the end of 2024, if not earlier.

At minimum, this data collection template will include:

- Total number of sites that received service under the EV Infrastructure Rules annually.
- Total cost associated with the EV Infrastructure Rules annually.
- Total amount of new charging (number of charge ports and number of sites) that the EV Infrastructure Rules annually, including an aggregation of which power levels of EVSE were deployed, and confirmation of reporting of any publicly available charging to the relevant public databases.
- Total per site cost for every upgrade made under the EV Infrastructure Rules.
- The dollar per additional kilowatt capacity installed on a per site basis.

- The type of site that received service (workplace, fleet, MUD, etc.), as listed on the customer's application.
- Per site cost data broken down by poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, other equipment used, and associated engineering and civil construction work, as described in statute, as well as any other costs the IOUs cover, excluding labor, reported on a per-site basis.
- Per-site data on sites that choose to install additional capacity, the number of EVSE they plan to install in the future, the total kW capacity of the upgrade, all as listed on the customer's application, and follow up customer survey data on how many EVSE were installed later and how long after the initial installation.
- Aggregated annual costs associated with the EV Infrastructure Rules, and also broken down by the per site cost categories defined in statue, with the exception of labor, which may be reported on an aggregate per-site basis.
- Per site costs for the total utility-side investments made under the EV Infrastructure Rules that the IOU/ratepayers cover and that the applicant covers.
- Whether the charging at each site is publicly accessible, shared, or private, as listed on the customer's application.
- Per site, the number of charge ports and which power levels were installed per installation, including the max power level for each EVSE, as listed on the customer's application.
- On a per site basis, the average amount of ratepayer costs on the utility-side of the meter.
- Estimated annual customer bill impact resulting from the EV Infrastructure Rules.
- On an aggregated basis, the total additional costs the IOU/ratepayers cover as compared to treatment under existing Rule 16.
- Load management options, including ALM, on which the IOU educates the applicant and which the applicant also chooses to implement at initial construction.
- For each site, whether it is located in a DAC, another designated underserved community location (if so, which), or neither.
- On a per site basis, identify whether the customer is participating in another IOU TE infrastructure program or receiving other IOU-associated incentives behind-the-meter, including an IOU administered Low Carbon Fuel Standard funded program, as stated on the customer's application.
- Aggregated and anonymized utilization data at a meter level, not an EVSE level (should be available upon request).

- On a per site basis, whether the installation is at a garage, a surface (lot) installation, or other (must explain "other").
- Whether the site will primarily serve light, medium- or heavy-duty or off-road EVs, or a mix, as stated on the customer's application;
- Number of applications that did not result in viable utility-side make-ready deployments and why (description of why does not need to be per application, but a list of all the reasons why in a given year.)
- Identification of any constraints to infrastructure deployment including, but not limited to, materials, staffing, permitting, etc.
- On a per site basis, the number of business days between a customer's service request and when the facility is energized, including a description of the days in which the IOU is waiting for the authority having jurisdiction (AHJ), customer, or other non-utility responsibility.

Lastly, while referring to the large IOUs' annual Electric Vehicle Charging Infrastructure Cost and Load Report, we adopt TURN's suggestion that the IOUs include a reference within their annual reporting of costs to which chapter of the GRC testimony the IOU will address the reasonableness of the costs cited. The small IOUs must jointly file an annual AB 841 EV Charging Infrastructure Cost Report, starting with a 2022 report filed in April 2023 to publicly present the information collected through the aforementioned data template. This report will be similar in nature to the Joint Electric Vehicle Charging Infrastructure Cost and Load Report. This can support stakeholders engaged in the DRIVE proceeding, or any successor proceeding, to clearly understand how the costs will be addressed within the GRC.

11. Utilizing Existing Electrical Service Connections

It is reasonable to require IOUs under the new EV Infrastructure Rules to utilize existing service, where feasible.

Within comments on the ACR, a few parties mention the value of the IOUs using existing service rather than building a new service line for both limiting ratepayer costs and enabling VGI use cases, including when vehicle charging is optimized with multiple charging ports at one site or other customer loads. SBUA recommends the CPUC consider whether to extend the treatment under the new Rules beyond new service lines to also support upgrades of existing service lines. SBUA argues that some customers may prefer to accommodate EV charging on an existing meter and that the CPUC should also consider service line cost upgrades on the same basis as new service lines. VGIC argues that the CPUC should consider requiring the IOUs to utilize existing service connections to support VGI. PCE states that the CPUC should encourage utilization of existing utility service to enable greater VGI deployment, and agrees with VGIC that VGI use cases often require EV load to be comingled on the same service line with other loads.

We agree that deploying all infrastructure under the Rules with separate service poses a challenge to our VGI and TE resiliency goals. In particular, this poses challenges to any vehicle-to-building use cases that a customer may want to implement in the future. We agree that using existing service is preferrable for supporting VGI and, depending on the site, for reducing cost. While the statute requires these Rules to apply to separately metered EV charging, there is no requirement to install new service in all cases. It is possible to separately meter EVSE load on a facility's existing service line by installing a utility-grade meter as a submeter. This configuration both meets the statutory requirement for separately metered EVSE and can help to facilitate future VGI use cases. We also understand there may be other configurations that meet the requirements of separately metering while using existing service lines to enable future vehicle-to-building and vehicle-to-grid scenarios. The main objective the IOUs must strive for is to reduce any barriers to using these installations for VGI purposes in the future.

However, we understand that in some cases new service is necessary and may be the most efficient path forward in terms of site design or cost. In particular, this will be the case for sites where no existing service is available and for sites in which the existing service cannot be upgraded. We thus direct the IOUs to update their proposed Rules through the Tier 1 AL to default to utilizing existing service where technically feasible and cost efficient, targeting the lowest lifetime costs for ratepayers including maintenance and eventual provisions for VGI use cases. Additionally, the IOUs must include a provision within the Rules that they will discuss with each applicant the importance to the applicant of enabling VGI use cases at their facility, and whether the IOU and applicant should consider additional site design specifications to support VGI use cases.

The CPUC is currently considering the adoption of a Submetering Protocol. If a Submetering Protocol is adopted, the CPUC may direct the IOUs to incorporate additional submeters beyond utility-grade metering in their Rules.

12. Offering of Load Management Tools

The IOUs' proposals to not include load management as a condition of taking advantage of the new EV Infrastructure Rules is reasonable at this time. However, IOUs must offer and provide information to each applicant regarding available IOU and third-party load management solutions.

The ACR asked parties several questions related to load management solutions and AB 841—(1) whether the CPUC should require IOUs to offer load management solutions to applicants requesting service under the new Rule, and what those solutions should be; (2) how the ALM language within D.20-12-029[12] should be implemented in relation to AB 841; and (3) whether the

[12] D.20-12-029 at page 28: "… any future tariff or rule filed by a large electrical corporation for service line and/or distribution line upgrades to support transportation electrification shall provide an option for customer-side ALM where beneficial to ratepayers while meeting TE charging needs. The large electrical

new Rules have the potential for adverse impacts to load management, VGI, and/or future submetering policy.

The IOUs comments on the ACR argue that the CPUC should not require any load management provisions for the new Rules. PG&E argues that load management should be addressed via existing or new IOU programs, rates, and pilots, not via additions or conditions on the Rules. SCE argues that the IOU should not be required to impose non-rate related load management solutions, but that the CPUC should encourage IOUs to offer relevant load management solutions to customers taking service on the new Rule. SDG&E states that it is premature to require IOUs to offer load management solutions to customers taking service on the new rule and that any requirement as a pre-requisite to taking service should not be adopted until criteria, definitions, and requirements have been fully vetted and adopted by the CPUC.

VGIC, Joint Commenters, ChargePoint, AEE, NRDC et al. and NDC state that IOUs should offer and educate applicants on load management solutions, but not require it since doing so could deter customer participation. Tesla argues that load management solutions should be opt-in. The CASMU argue that the small IOUs do not have the technology or staff to offer load management solutions.

Similarly, parties - including Electrify America, Tesla, SCE, SDG&E, Cal Advocates, Joint Commenters, ChargePoint, TURN, VGIC, and NRDC et al.--generally advocate against any ALM requirement or condition within the Rules at this time. Electrify America notes that ALM is not suited to all use cases (in particular DCFC), could impact EV adoption, and may undermine equity goals. SDG&E argues that since it will not own or subsidize the behind-the-meter infrastructure, it cannot require customers to purchase any specific capabilities for the EVSE. SCE and Cal Advocates raise concerns that there is little data available to evaluate the costs and benefits of TE ALM, and that the CPUC should not mandate the use of ALM until the market has been investigated and costs and benefits quantified through studies and pilots. Further, Cal Advocates argues ALM should be a site-specific consideration, and that the CPUC should not restrict the types of eligible load management solutions from which customers can choose.

NRDC et al. argues that given the CPUC does not have a definition, deployment criteria, or performance requirements for ALM and that these questions will not be resolved prior to statutory deadline, the CPUC should continue to evaluate ALM solutions outside of AB 841. NRDC et al. does however support having the IOUs and EV service providers (EVSPs) educate and work with applicants to better understand whether and how load management solutions may be appropriate for their sites.

VGIC and Tesla argue that the individual customer should decide whether to implement ALM. Tesla argues that a requirement for ALM would be detrimental because requiring a relatively new technology against the will of individual customers would cause confusion, open the door

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corporations shall develop standard evaluation criteria to determine host sites where ALM would benefit ratepayers by reducing costs while meeting host site needs for EV charging."

to unknown technical issues, and could lead to lower charger reliability and the slowdown of EV charging deployment. VGIC argues that customers should not be forced to accept smaller than nameplate connect, nor should any use cases automatically be considered appropriate/inappropriate for ALM. As an alternative to requiring ALM, VGIC suggests the IOUs could develop a new shared savings incentive mechanisms as an option for applicants that is designed to encourage, but not require site hosts to incorporate ALM. VGIC proposes the incentive for this model as a combination of an upfront payment and a bill credit. Several parties critiqued this approach, including TURN who argues that any costs for ALM should be borne by applicants not ratepayers and PCE who argues that the proposal still has many outstanding questions.

TURN suggests, and Joint Commenters agree, that the IOUs be required to revise their distribution planning rules for EV charging to incorporate actual expected EV charging usage since the new Rules highlight the need to incentivize EV charging at grid friendly times to mitigate the need for some distribution system upgrades and the need to model peak EV load for distribution planning purposes. Cal Advocates suggests that the CPUC require the IOUs to coordinate with EVSPs to educate applicants about load management solutions, and to encourage applicants to consider adopting load management solutions early in their EVSE installation process.

PCE and UCAN, however, do recommend conditioning taking service under the new Rules on load management strategies. UCAN suggests that all new meters be networked smart meters, and any applicable EV rates should apply to these customers. PCE recommends that the CPUC require that for MUDs utilizing Level 2 charging with at least four or more Level 2 ports ALM should be a requirement, but that the requirement should be evaluated periodically. PCE argues that in its own implementation of this approach it minimized project costs, and that the MUD use case is appropriate for ALM. For all other sites, PCE suggests the IOU be required to initiate a collaborative process to ensure that it is offering a well-tailored solution to that site.

Within their ALs, the IOUs did not include any provisions regarding load management.

We agree with the many parties' concerns that load management requirements for customers taking service under the new Rules is a site-specific consideration. We agree that the Rules should not have overly complex conditions for taking service, and that there are other more appropriate venues to address load management at this time within programs, rates, and pilots. While TE programs have in the past included certain load management requirements (e.g., customer load management plans, DR participation, etc.), those programs also provided incentives behind-the-meter.

We also agree with the majority of parties who oppose including any requirement for ALM within these Rules at this time, citing to the lack of a CPUC approved definition(s) and criteria for how to implement ALM, outstanding implementation questions around costs and benefits, concerns around customer choice. Additional input from stakeholders, additional data to answer critical questions around ALM, and additional CPUC guidance is necessary before any ALM deployment requirement can move forward. As the process for developing the needed

definitions, criteria, data, and guidance on ALM develops through the CPUC's implementation of D.20-12-029, the CPUC may revisit the topic of ALM, load management, and the Rules.

Further, we agree with the many parties that state the IOUs should offer and educate applicants on load management solutions, without creating a requirement for applicants taking service under the new Rules. We direct the IOUs to educate and offer each applicant taking service under the new Rules about available IOU and third-party load management solutions. In accordance with D.20-12-029, this offering should, at minimum, include education and an option for the customer to install customer-side ALM. The IOUs within their Tier 2 AL should outline which load management solutions they will offer applicants and how they plan to update this list over time.

13. Enrollment in a Time-Variant Rate

BVES' proposal to require customers taking service under the proposed EV Infrastructure Rule to be enrolled on a TOU rate is reasonable and should be applied to Liberty's and PacifiCorp's EV Infrastructure Rules.

As a participation requirement within BVES' proposal, all Applicants taking service through its Rule 24 must agree to be served on one of BVES' applicable General Service TOU rates.

In its protest against this provision, ChargePoint argues that this requirement goes beyond AB 841 and nothing in PU Code Section 740.19(c) requires customers to take service on time varying rates. Additionally, ChargePoint asserts that while most customers may be on a TOU rate, exceptions are possible, and it would be inappropriate to condition eligibility for Rule 24 on any specific rate requirement. ChargePoint recommends the CPUC reject BVES's requirement for an Applicant to enroll in a TOU rate to take service through the Rule.

We disagree with ChargePoint's general argument. As ChargePoint states, while nothing in AB 841 and PU Code Section 740.19(c) requires a customer to take service on time varying rates, the same language does not preclude an IOU from including this requirement in its Rule.

As of June 2021, the CPUC has approved commercial EV TOU rates for BVES and Liberty. The CPUC has also started the process of defaulting all residential California IOU ratepayers onto a TOU rate. These TOU rates, when used to charge an EV, provide clear price signals that encourage charging during off-peak hours and during high renewable generation hours. These EV TOU rates have been one of the CPUC's efforts to meet legislative requirements codified in PU Code Section 740.12 that directs the CPUC to create rates that ensure EV charging is affordable for drivers and that benefits the electric grid.

Given the CPUC's efforts to encourage customer enrollment on a TOU rate, we do not agree with ChargePoint's recommendation to reject this requirement from BVES's proposal. We do however, understand that the EV Commercial TOU rate may not in all cases be the best fit for

customers. We see value in allowing some flexibility for customers to choose other time variant rates. We thus modify BVES' Rule to state the following,

"*All Applicants taking service through Rule 24 will automatically be enrolled onto an applicable EV Time-of-Use rate offered by BVES. After discussing their EV charging needs with BVES, the Applicant may opt-out of the EV Time-of-Use rate for an appropriate time variant rate.*"

It is reasonable to default customers onto an applicable TOU rate is the most efficient way to ensure customers are enrolled on a rate plan that encourages beneficial electric consumption habits without imposing significant disruption. We find it reasonable to require Liberty and PacifiCorp add the same language and requirements to their Rules. While we direct PacifiCorp to add this language, we recognize they do not yet have a CPUC approved TOU rate. Thus, PacifiCorp may add language to clarify the requirement to default onto a TOU applies if, and when, the IOU has such a rate.

14. Penalty for Failure to Provide Accurate and Full Accounting

The CPUC's Enforcement Policy describes the CPUC's broad enforcement authority

PU Code Section 740.19(a) directs the CPUC to require each IOU to provide an accurate and full accounting of all expenses related to electrical distribution infrastructure and apply appropriate penalties to the extent an IOU is not accurately tracking all expenses.

In the ACR, the CPUC proposed levying a $500 per day penalty following a reporting deadline in which an IOU fails to submit a report, submits any inaccurate information, or submits an incomplete report. Party responses to this proposal were mixed. TURN and UCAN were supportive of the CPUC's proposal. While supportive of the proposal, TURN does request clarifications to ensure that the $500 per day penalty should not be borne by ratepayers, but by the utility shareholders. SDG&E and CASMU support the proposal but recommends modifications. In their comments, CASMU request the structure of the penalty be revised to provide an IOU with a cure period for inaccurate or incomplete report, specifically recommending 10 business days from the date the IOU is notified by the CPUC of the discrepancy. Two parties, PG&E and SCE, oppose the CPUC's recommended penalty, and state that AB 841 does not require or authorize new or different enforcement policies or penalties form those already available and enforced.

PG&E and SCE are correct that we do not have to adopt a penalty in this Resolution to enforce the new EV Infrastructure Rules reporting requirements. The CPUC's Enforcement Policy describes the CPUC's broad enforcement authority, as well as the various enforcement tools available to staff, including citation programs.[13] While we elect not to adopt a specific penalty amount here, staff may develop a citation program, or use other enforcement tools as necessary

[13] See Resolution M-4846

to ensure compliance with the accurate reporting requirements of this Resolution. The information and data collected for the new EV Infrastructure Rules have significant public policy importance and the IOUs should make every effort to meet the letter and the spirit of the reporting requirements set forth in Section 740.19(c), this Resolution, and any further guidance.

15. Service Energization Timing Expectation

It is reasonable for the CPUC to establish service request timing expectations for the EV Infrastructure Rules.

In comments on the ACR, Tesla suggests that the CPUC establish timelines for the IOUs to respond to EV charging installation service requests and have specific goals for construction and approval items (e.g., days from service request to utility service, days from construction to complete energization). Tesla cites the most important metric is total days from service request to energization. ChargePoint agrees with this point and suggests that the CPUC provide guidance to enable staffing, training, and equipment procurement expansion, and establish expectations for reasonable, nondiscriminatory management of new service requests. ChargePoint further suggests that guidelines could include reasonable timeframes for reviewing, responding to, and processing customer requests, and for completing design tasks, permitting, and construction.

The draft Transportation Electrification Framework (TEF) also contained recommendations that the IOUs provide transparent and streamlined processes for interconnection and included a question on whether the CPUC should direct the IOUs to meet specific connection deadlines or establish clearer timeframes for the EVSE interconnection process. In response to this question, several parties submitted comments expressing support for establishing such timelines. Included within these parties, EVgo suggested a 90-day timeline from assessment to energization, citing that Dominion Energy routinely provides cost estimates and specifications within three weeks that California IOUs provide within two to four months. Electrify America noted that California IOUs takes an average of 36 weeks for energization, which is nearly 20 percent longer than the average time it takes in the rest of the U.S. ChargePoint notes that while some milestones, like permitting, are outside of IOU control, the IOU still has an obligation to provide a reasonable timeline for each project. Each of the IOUs oppose setting specific deadlines for interconnection.

In light of the party support for a similar suggestion within the TEF, we find Tesla and ChargePoint's comments to be reasonable. In particular Tesla's suggestion to establish a metric for the total days from service request to energization could provide important targets for the IOUs in improving their service and transparency. This timing concern that Tesla and ChargePoint have raised is critical as delays in energization slow down construction timelines, increase costs for developers, and hinder the pace of accelerating TE.

However, we also understand that different sites may have different timing demands, and thus an average number of days would be most appropriate. This would allow for some projects to

necessarily exceed the timeline while others could move quicker than the expected timeline. Additionally, we recognize that delays may arise that are outside the IOUs' control, and which will impact the IOUs' ability to meet an average energization timeline. Examples of these delays include the AHJ issuing permits for customer-side equipment, executing easements, customer-side panel inspections, and timing for a customer to sign contracts.

We adopt an average service timing expectation in this resolution but acknowledge that additional data is necessary to implement this expectation. Thus, we direct the IOUs to propose an average timeline between a customer submitting a service request to when the facility is energized. We expect this timeline to be between an average of 90 and 160 days. To inform this proposal, we direct the IOUs to host a public workshop within 180 days of approval of this Resolution to discuss the barriers to the timely energization of EV charging infrastructure. At minimum, the workshop must address 1) the IOUs' processes and internal timeline for timely installing and energizing electrical distribution infrastructure to support EV charging, 2) the barriers within the IOUs' control that impact the IOUs' ability to meet a faster service energization average, 3) the barriers outside of the IOUs' control that impact the IOUs' ability to meet a service energization average, 4) the direct perspective of EVSPs and other industry representatives, 5) how the IOUs can collaborate and coordinate with EVSPs and other market actors (e.g., AHJs) to accelerate service energization timing, and 6) potential solutions to overcome the identified. The IOUs must ensure the EVSPs are provided sufficient time to discuss their concerns and suggestions.

We additionally direct the IOUs to host a public workshop within 60 days of holding this public workshop, the IOUs must file a joint Tier 2 advice letter to propose a service energization timeline, that, at minimum, 1) proposes a numerical timeline (i.e., number of business days) for average energization timing between when a customer submits an application and when their site is energized that reflects efforts to accelerate the current average service energization timeline, 2) identifies the processes that are within the IOUs' direct and indirect control, 3) the processes that are not within the IOUs' control (e.g., within the control of the customer, AHJ, EVSP, etc.), 4) a process for how the IOUs' can improve the service energization timing for items that are within their direct and indirect control, 5) description of how the IOUs' can contribute towards improving the timing for other responsibilities, if any, and 6) a proposal that is reflective of the discussions and feedback from the workshop, including the feedback of industry representatives.

Additionally, as discussed earlier in this Resolution, the IOUs are required to report the actual service timing for each site within the AB 841 EV Infrastructure Cost Report. This will allow the CPUC to evaluate the IOUs' efficacy in meeting this service timing expectation and provide data for the CPUC to issue additional enforcement in the future if necessary.

16. Rate Impact

None of the IOUs included within their ALs an estimate of the total expected revenue requirement nor the estimated rate impact of the EV Infrastructure Rules. Within their Tier 1 AL filings, the IOUs should each submit the expected revenue requirement and rate impact resulting from these Rules through the end of 2024 when the CPUC will begin its evaluation of the Rules.

Safety Considerations

This Resolution approves, with modifications, BVES's, Liberty's, and PacifiCorp's proposed Rules 24. These new Rules will serve as an alternative to Rule 16 for service extensions related to separately-metered EV charging, excluding those installed at single-family homes. The safety considerations are similar to those associated with existing utility responsibilities associated with building new service. The utilities must continue to comply with existing utility policy on safety requirements and standards, as well as the Transportation Electrification Safety Requirements checklist adopted in 2018 where applicable. Thus, no incremental safety implications associated with approval of this Resolution are expected.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this Resolution must be served on all parties and subject to at least 30 days public review. Any comments are due within 20 days of the date of its mailing and publication on the Commission's website and in accordance with any instructions accompanying the notice.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the CPUC's agenda no earlier than 30 days from today.

On August 25, 2021, ChargePoint, PacifiCorp, Small Business Utility Advocates (SBUA), and Tesla filed comments on this Resolution.

ChargePoint's comments oppose the inclusion and implementation timing of a customer allowance. ChargePoint recommends the CPUC postpone requiring a customer allowance until the CPUC conducts its evaluation of the Rules. ChargePoint also does not support the requirement that all customers taking service through the Rules be defaulted onto an EV TOU rate. ChargePoint recommends modifying this requirement to allow a customer to opt-in to a rate that works best for them. Finally, ChargePoint supports the Resolutions determination that load management should be addressed separately from this Resolution.

PacifiCorp's comments raise a number of concerns with the Resolution's ordering paragraphs and requests clarifying language within the final Resolution. PacifiCorp's comments raised

concerns over the proposed customer allowance process, as delaying an allowance for two years could potentially have negative impacts on PacifiCorp's customers. PacifiCorp raises similar concerns with the Resolution's proposed future proofing language and service extension timing requirements. Finally, PacifiCorp requests minor clarifications on the use of the Safety Requirements Checklist, the use of a high-level estimate for the revenue requirements calculations, when PacifiCorp must require a customer enroll in a time-variant rate to take service under the new Rule, and flexibility within the IOUs' common cost category designations.

SBUA's comments reflect general support for the Resolution, specifically the proposed language for the IOUs to meet a 90-day average for service energization. SBUA also expresses their support for the proposed customer allowance process and offers recommendations on how the IOUs should inform the allowance design. Finally, SBUA requests clarification for how the IOUs are to define an Electric Vehicle so that it does not exclude non-wheeled modes of transportation.

Tesla also voices their general support for the Resolution. Telsa's supports modifications to the proposed language regarding the use of the Safety Requirement Checklists to ensure the used of the checklist does not prevent a customer from installing any specific EVSE. Tesla also requests clarification on two areas of the data collection requirements. Finally, Tesla expresses support for the proposed 90-day average for service energization, and requested a workshop to discuss current timelines and opportunities for further collaboration between the IOUs and EV charging providers.

In response to these comments on the draft Resolution, modifications were made in this Resolution to address comments including regarding the inclusion of an allowance, energization timing, and data collection requirements. We note that despite modifications to the inclusion of an allowance structure at this time, we do not agree with all party comments requesting this change. In particular, Section 740.19(c) only prohibits the overall policy of treating utility-side electric vehicle infrastructure like any other necessary distribution infrastructure. It does not prohibit the CPUC from making any other substantive changes that do not alter that overall policy. The CPUC has broad authority over the IOUs pursuant to Section 740.19(c) and is authorized to regulate them in any way it sees fit.

FINDINGS

1. On March 1, 2021, Bear Valley Electric Service Inc. filed advice letter 413-E, and Liberty Utilities (Calpeco Electric) LLC filed advice letter 166-E. On May 21, 2021, PacifiCorp d/b/a Pacific Power filed advice letter 649-E. The advice letters request the establishment of new Electric Rules 24 —known as the EV Infrastructure Rules (Rules), and associated Memorandum Accounts (Memorandum Accounts) to track the costs associated with offering these new Rules.

2. Assembly Bill 841 (Ting, 2020) directed the investor-owned utilities to file advice letters no later than February 28, 2021 to establish a new tariff or Rule that authorizes each investor-owned utility to design and deploy all electrical distribution infrastructure on the utility side of the customer's meter for all customers, other than those in single-family residences, installing separately metered infrastructure to support electric vehicle charging stations.
3. On January 15, 2021, Commissioner Rechtschaffen issued an Assigned Commissioner Ruling within the DRIVE Rulemaking—Rulemaking (R.) 18-12-006—to seek party feedback on how the CPUC should implement and interpret certain aspects of Assembly Bill 841 (Ting, 2020). Outstanding issued raised in the Assigned Commissioner Ruling and comments on the Assigned Commissioner Ruling related to the establishment of the new Electric Vehicle Infrastructure rules are addressed through this Resolution.
4. ChargePoint submitted protests to Bear Valley Electric Service Inc. and Liberty Utilities (Calpeco Electric) LLC advice letter that critiqued the proposal to assign the costs of environmental studies and issue mitigation to customers.
5. ChargePoint submitted protests to Bear Valley Electric Service Inc. and Liberty Utilities (Calpeco Electric) LLC advice letters, in which it requests the inclusion of additional language in the Electric Vehicle Infrastructure Rules to provide clarity that the Rules do not affect any additional customer incentive provided through investor-owned utility Transportation Electrification programs.
6. Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power advice letters propose to require Applicants to demonstrate proof of commitment to install Electric Vehicle Supply Equipment and would require Applicants to maintain and operate the Electric Vehicle Supply Equipment for a minimum of five years.
7. Neither Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC, nor PacifiCorp d/b/a Pacific Power propose building additional capacity beyond what is necessary to serve the planned number of Electric Vehicle Supply Equipment installed in the near-term to help avoid upgrades in the future.
8. Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power propose similar definitions of electric vehicles within their proposed Electric Vehicle Infrastructure Rules.
9. Liberty Utilities (Calpeco Electric) LLC proposes at a minimum timeline of six months to establish the new Electric Vehicle Infrastructure Rule. Bear Valley Electric Service Inc. nor PacifiCorp d/b/a Pacific Power propose a timeline to establish their new Electric Vehicle Infrastructure Rules
10. In comments on the Assigned Commissioner Ruling, many parties urge the California Public Utilities Commission to swiftly approve the investor-owned utility proposals to allow for a quick implementation of the new Rules.
11. Public Utilities Code Section 740.19(c) allows for the modification of the Electric Vehicle Infrastructure Policy at the end of the investor-owned utilities' General Rate Case cycle, after the General Rate Case cycle which they filed their advice letter.

12. Public Utilities code Section 740.19(a) directs the California Public Utilities Commission and investor-owned utilities to treat distribution costs associated with electric vehicle charging "the same as other distribution infrastructure authorized on an ongoing basis in the [investor-owned utility's] General Rate Case."
13. The Assigned Commissioner Ruling posed a question on the nature of revised cost tracking and proposed a set of minimum data collection requirements.
14. Additional cost reporting from Bear Valley Electric Service Inc., Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power is necessary to track the effectiveness of the Electric Vehicle Infrastructure Rules in accelerating Transportation Electrification and measuring the affordability of the policy to ratepayers.
15. TURN and UCAN in response to the Assigned Commissioner Ruling both agree that while Public Utilities Code Section 740.19(c) mandates reasonableness review of the costs associated with the Electric Vehicle Infrastructure Rules through the General Rate Cases, the annual reporting and tracking of these costs should occur in the DRIVE rulemaking—Rulemaking (R.) 18-12-006.
16. Within comments on the Assigned Commissioner Ruling, parties mention the value of using existing service for electric vehicle charging buildout.
17. Additional input from stakeholders, additional data to answer critical questions, and additional California Public Utilities Commission guidance is necessary before any deployment requirement around Automated Load Management technology can be implemented.
18. Within its proposed Electric Vehicle Infrastructure Rule, Bear Valley Electric Service Inc. proposes to require participants to take service on an applicable time-of-use rate, which is intended to reduce peak loads and promote the use of renewable resources.
19. PacifiCorp d/b/a Pacific Power does not yet have a California Public Utilities Commission commercial electric vehicle time of use rate.
20. Within comments on the Assigned Commissioner Ruling, Tesla suggests that the California Public Utilities Commission establish timelines for the investor-owned utilities to respond to electric vehicle charging installation service requests and have specific goals for stage gate items (e.g., days from service request to utility service, days from construction to complete energization). Tesla cites the most important metric to be total days from service request to energization.
21. Public Utilities Code Section 740.19(c) allows for customer allowances to be established for the Electric Vehicle Infrastructure Rules as long as the allowances are based on the full useful life of the electrical distribution infrastructure.
22. Based on data that San Diego Gas & Electric Company submitted within comments to the January Assigned Commissioner Ruling, the EV Infrastructure Rules could result in ratepayer subsidy increases between 135 percent for a two-port direct current fast charger deployment and 378 percent for a 12-port Level 2 charger deployment.
23. A robust record is necessary to determine and establish a reasonable line and service extension allowance structures for the Electric Vehicle Infrastructure Rules.

24. Neither Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, nor PacifiCorp d/b/a Pacific Power included an estimate for their EV Infrastructure Rules' revenue requirement and rate impact.
25. Energy Division staff may develop a citation program or use other enforcement tools as necessary to ensure compliance with the accurate reporting requirements of this Resolution in the future.
26. The CPUC has broad authority over the IOUs pursuant to Section 740.19(c) and is authorized to regulate them in any way it sees fit.

THEREFORE IT IS ORDERED THAT:

1. This Resolution approves with modifications Bear Valley Electric Service Inc's Advice Letter 413-E, Liberty Utilities (Calpeco Electric) LLC's Advice Letter 166-E, and PacifiCorp d/b/a Pacific Power's Advice Letter 649-E and 649-E-A.
2. This Resolution directs Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power to each establish their new EV Infrastructure Rules 24.
3. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must submit a Tier 1 Advice Letter within 60 days of the adoption of this Resolution. The Tier 1 Advice Letter must at minimum address the following modifications:
    a. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must provide a clear comparison of the costs and responsibilities that are assigned to the IOUs and the customer for their existing Electric Rule 15, Electric Rule 16, and Electric Rule 24 to all applicants that request service through the EV Infrastructure Rule.
    b. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must add language to the EV Infrastructure Rule that the Electric Vehicle Supply Extension must extend along the shortest or most practical available route, available route as necessary to reach a Service Delivery Point identified via mutual agreement between the investor-owned utility and the applicant.
    c. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must each add the following language their EV Infrastructure Rules: "No Effect On Other TE Programs - Infrastructure provided pursuant to this Rule 24 does not alter or diminish the Commission's authority under Public Utilities Code section 740.12(b) (or any other similar statute) to direct electrical corporations to file applications for transportation electrification programs

and investments, or to approve or modify the terms and conditions of such programs and investments."

d. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must update its proposed EV Infrastructure Rules to reflect the specific safety qualifications for Electric Vehicle Supply Equipment, which may incorporate requirements of the Transportation Electrification Safety Checklist adopted via Decision (D.) 18-09-034 related to utility-side infrastructure.
e. PacifiCorp d/b/a Pacific Power must remove the customer allowance language of $10,000 plus two times the electric service revenue the Charging Station is estimated to pay in a year of normal EVSE operation.
f. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must each modify the definition of electric vehicle within the EV Infrastructure Rules to include the same referenced definition of electric vehicles from Decision (D.) 20-09-035.
g. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must each add a timeframe clause into the Applicability section of each of their EV Infrastructure Rules to stipulate that the Rule may be revised after the completion of the IOUs' General Rate Case cycle, following the one during which the advice letter was filed. While the policy may continue as the California Public Utilities Commission evaluates its impacts, it may modify the Rules following the evaluation.
h. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must (1) submit a proposed common cost category definitions for poles, vaults, service drops, transformers, mounting pads, trenching, conduit, wire, cable, meters, associated engineering and civil construction work, and other equipment and labor that the IOUs will cover under the new Electric Vehicle Infrastructure Rules; and (2) submit common cost categories for anything else the IOUs will cover under their new EV Infrastructure Rules. The IOUs will use these cost categories to track costs associated with the new Electric Vehicle Infrastructure Rules within their Memorandum Accounts. There should not be variation between the IOUs' cost categories or definitions.
i. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must each update their EV Infrastructure Rules to default to utilizing existing service where technically feasible and cost efficient, as described within the discussion section of this Resolution.
j. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must each update their EV Infrastructure Rules to reflect that as a default, participants will be enrolled on the commercial time-variant

electric vehicle rate that each IOU offers, but that customers may choose to change to another time-variant rate. PacifiCorp d/b/a Pacific Power must add a clause that this requirement will go into effect if, and when the California Public Utilities Commission approves a commercial time-variant electric vehicle rate for them.

k. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must calculate the expected revenue requirement and rate impact resulting from these Rules through the end of 2024.

4. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must each submit a Tier 2 advice letter within 60 days of the adoption of this Resolution. This advice letter will be address outstanding implementation details related to the establishment of the Electric Vehicle Infrastructure Rules and associated Memorandum Accounts beyond what the Tier 1 advice letter addresses. The Tier 2 advice letter must at minimum address the following modifications, as described within the discussion section of this Resolution:
    a. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power should each modify their proposed Electric Vehicle Infrastructure Rules to include a definition of "issue mitigation," for which the associated costs will be assigned to the Applicant.
    b. Liberty Utilities (Calpeco Electric) LLC must modify their Rule 24 to assign the costs for excavation, trenching, and backfilling, conduit and substructures, padmounting equipment, transformer room and vault, and necessary transformer lifting equipment in addition to any other unspecified equipment owned by the utility and necessary for the installation of electrical distribution infrastructure to the utility.
    c. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must update its Electric Vehicle Infrastructure Rule to reflect the specific safety qualifications that it will require of Electric Vehicle Supply Equipment installed in order for the equipment to be qualified under the Electric Vehicle Infrastructure Rule. The investor-owned utilities only need to include this modification within its Advice Letter if these qualifications go beyond the requirements within the Transportation Electrification Safety Checklist.[14]
    d. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must include clarifying language within its Electric Vehicle Infrastructure Rule as to how Applicants may provide proof of commitment to purchase and install Electric Vehicle Supply Equipment under the Electric Vehicle Infrastructure Rule, including all the eligible documents an Applicant may use.
    e. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must propose a common plan for how they will enforce the requirement for customers taking service under the Electric Vehicle

[14] See Resolution M-4846

Infrastructure Rules to maintain the Electric Vehicle Supply Equipment for a minimum of five years.

f. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must update their EV Infrastructure Rules to offer future proofing and buildout of additional capacity beyond the capacity needed for the Electric Vehicle Supply Equipment the customer plans to install at the time of taking service under the Rule. The IOUs must additionally submit a plan for its future proofing that includes a requirement that the investor-owned utility receive a signed commitment from the customers that they will install the additional planned Electric Vehicle Supply Equipment in the future and the approximate number of Electric Vehicle Supply Equipment they plan to install. The IOUs must include a description of how they will confirm the applicant fulfilled its commitment to install the additional Electric Vehicle Supply Equipment. The IOUs must also describe how they will align all future electrification upgrades to streamline the process for customers, support multiple clean energy objectives, and reduce costs for both customers and ratepayers.

g. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must outline which investor-owned utility and third-party load management solutions they will offer customers taking service under their Electric Vehicle Infrastructure Rules, and how they plan to update this list over time. This must at minimum include education and an option for the customer to install customer-side automated load management (ALM).

5. Within the Memorandum Accounts that this Resolution approves, Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must, at minimum, record all costs described within the discussion section of this Resolution. All costs described within the discussion section must be captured within the Memorandum accounts and be consistent across the IOUs. The IOUs must each also submit common cost categories, as described in the discussion section of this Resolution, and must include the updated Preliminary Statement for the Memorandum Account within their Tier 1 advice letter.
6. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must begin to offer service under the new Electric Vehicle Infrastructure Rules no later than six months after the adoption of this Resolution. The IOUs must each notice the DRIVE service list—Rulemaking (R.) 18-12-006—once the new Rule is available. If the IOU is unable to implement the new Electric Vehicle Infrastructure Rule within the six-month period, pursuant to Rules of Practice and Procedure 16.6, it may request an extension of time to comply with this requirement. If requesting an extension, the IOU must notify the service list, provide justification for the needed extra time, and provide an update on the new expected launch time.

7. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power must notify the DRIVE service list—Rulemaking (R.) 18-12-006—or any successor service list, six- months prior to any modifications to the Electric Vehicle Infrastructure Rules taking effect.
8. Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) must host a public workshop within 180 days of approval of this Resolution to discuss the barriers to the timely energization of electric vehicle charging infrastructure. The workshop should, at minimum, address 1) the IOUs' processes and internal timeline for timely installing and energizing electrical distribution infrastructure to support EV charging, 2) the barriers within the IOUs' control that impact the IOUs' ability to meet a timely service energization average, 3) the barriers outside of the IOUs' control that impact the IOUs' ability to meet a faster service energization average, 4) the direct perspective of Electric Vehicle Service Providers (EVSPs) and other industry representatives, 5) how the IOUs can collaborate and coordinate with EVSPs and other market actors (e.g., authority having jurisdiction (AHJ)) to accelerate service energization timing, and 6) potential solutions to overcome the identified barriers. The IOUs must ensure the EVSPs are provided sufficient time to discuss their concerns and suggestions.
    a. Within 60 days of holding this public workshop, the IOUs must file a joint Tier 2 advice letter to propose a service energization timeline, that, at minimum, 1) proposes a numerical timeline (i.e., number of business days) for average energization timing between when a customer submits an application and when their site is energized that reflects efforts to accelerate the current average service energization timeline. We expect the proposed target will be between an average of 90 and 160 days, 2) identifies the processes that are within the IOUs' direct and indirect control, 3) identifies the processes that are not within the IOUs' control (e.g., within the control of the customer, AHJ, EVSP, etc.), 4) a process for how the IOUs can improve the service energization timing for items that are within their direct and indirect control, 5) description of how the IOUs' can contribute towards improving the timing for other responsibilities, if any, and 6) ensures the proposal is reflective of the discussions and feedback from the workshop, including the feedback of industry representatives.
9. Energy Division staff, in consultation with the Bear Valley Electric Service Inc, Liberty Utilities (Calpeco Electric) LLC, and PacifiCorp d/b/a Pacific Power (IOUs) and other stakeholders as necessary, must finalize a data collection template related to the Electric Vehicle Infrastructure Rules and based on the Assigned Commissioner Ruling's proposed minimum data collection requirements and party comments. Energy Division staff should strive to align the data reporting requirements with the CEC's CALeVIP program, to the extent feasible and practical. These data requirements will be submitted through a joint annual AB 841 EV Charging Infrastructure Cost Report, which the IOUs must comply with

beginning with a Spring of 2023 report for 2022 cost data. When finalized, Energy Division staff will upload this template to the CPUC Zero Emission Vehicles website and will notify the DRIVE service list—Rulemaking (R)18-12-006, or any successor service list. At minimum, the IOUs must report all of the data fields described within the discussion section of this Resolution.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed, and adopted at a conference of the Public Utilities Commission of the State of California held on **October 7, 2021** the following Commissioners voting favorably thereon:

/s/ Rachel Peterson
Rachel Peterson
Executive Director

MARYBEL BATJER
President
MARTHA GUZMAN ACEVES
CLIFFORD RECHTSCHAFFEN
GENEVIEVE SHIROMA
DARCIE HOUCK
Commissioner