

Decision _____

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Petition to Adopt, Amend, or Repeal a Regulation Pursuant to Pub. Util. Code Section 1708.5.

Petition 12-10-011
(Filed October 18, 2012)

Order Instituting Rulemaking Regarding Whether to Adopt, Amend, or Repeal Regulations Governing Safety Standards for the Use of 25 kV Electric Lines to Power High Speed Trains.

Rulemaking _____

**DECISION GRANTING PETITION FOR
RULEMAKING AND ORDER INSTITUTING RULEMAKING TO
DETERMINE WHETHER TO ADOPT, AMEND OR REPEAL REGULATIONS
GOVERNING SAFETY STANDARDS FOR THE USE OF 25KV ELECTRIC
LINES TO POWER HIGH SPEED TRAINS**

1. Introduction

By this Order we grant the petition of the California High Speed Rail Authority (Authority) to open a rulemaking into whether to adopt, amend or repeal regulations governing safety standards for the use of 25 kilovolt electric lines to power high speed trains. In doing so, we carry out the intention of the legislature expressed in legislation creating the Authority and financing the initial stages of construction to develop a high-speed rail system providing an alternative to air and automobile transportation between population centers in northern and southern California. The current intercity passenger rail services operated by Amtrak in California are based on diesel propulsion at speeds not exceeding 90 miles per hour (mph). By contrast, the high-speed trains to be

constructed by the Authority are designed to travel at speeds of up to 220 mph. Because of the speed of the trains and the high voltage necessary to power them, high speed trains present safety challenges different from those posed by both conventional and light rail systems. In this rulemaking we will determine whether existing electrical safety standards developed in connection with conventional and light rail systems are adequate for the operation of high speed rail systems and, if not, whether we can render them adequate by amending them or whether we must adopt a new General Order specifically dealing with the safety challenges presented by electrified high speed rail systems. We anticipate this rulemaking will be a collaborative effort between the Commission's Safety Division, the Authority, affected utilities and other interested parties.

2. Jurisdiction

The Commission has broad jurisdiction over rail safety within the State of California pursuant to the provisions of Public Utilities (Pub. Util.) Code (Code) Sections 309, 765.6, 768, 7710 to 7718 and others. These Sections of the Code empower and direct the Commission to set standards for the safe operation of trains within the State. In the exercise of its authority the Commission has adopted General Orders (GOs) 22-B, 26-D, 27-C, 95, 143-B and others.

3. Background

In 1993 the state legislature created the Intercity High-Speed Rail Commission and tasked it with determining the feasibility of an intercity high speed rail system in California. In 1996, the Commission issued a report that concluded that such a project was feasible. In the same year, the legislature created the Authority and tasked it with preparing a plan for the design and construction of an economically viable high speed train line linking major

metropolitan areas. In 1998 voters approved a \$9.95 billion bond issue to finance a new high speed train system in California. Because of the state's financial difficulties, the Legislature did not pass enabling legislation until 2002, when it passed Senate Bill 1856, authorizing the bond sale.

In 2004, the Authority issued a draft Environmental Impact Report (EIR) that described the proposed system and its expected environmental impacts. The Authority received and reviewed over 2,000 public and government agency comments on the draft documents, which it used to determine preferred corridors and stations for the majority of the proposed line. In November 2005, the Authority certified the final statewide EIR.

The Bay Area to Central Valley final portion of the proposed high speed rail system was the subject of separate EIRs which were finally certified in September 2010.

In 2010, pursuant to an initiative approved by voters in 2008, the legislature adopted a new Chapter 20 of Division 3 of the Streets and Highways Code. The new law directs the Authority to build and operate a new high speed train service between southern and northern California. In 2010 and 2011, the federal government awarded the California High-Speed Train Project (Project) grants totaling \$3.25 billion. In July 2012, the state legislature approved spending \$2.6 billion to construct the initial section of the Project in the Central Valley.

On October 18, 2012, the Authority filed its petition pursuant to Pub. Util. Code § 1708.5 to institute a rulemaking on whether the Commission should adopt, amend or repeal a regulation governing safety standards for using 25 kilovolt (kV) alternating current (ac) electric lines to power high speed trains.

Responses to the petition were filed by Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SoCalGas). PG&E, SDG&E, and SoCalGas filed a joint response and are hereafter referred to collectively as “Joint Respondents.” All four Respondents argue that references in the draft General Order (GO) to the Institute of Electrical and Electronics Engineers’ National Electric Safety Code (NESC) standards or requirements for wind or ice loading or clearances should be replaced with references to GO 95. If the standards and requirements established in GO 95 are deemed inadequate for 25 kV lines, Respondents urge revision of GO 95 rather than incorporation of NESC standards.

Joint Respondents argue, in addition, that the Commission should require the Authority to avoid or mitigate interference between the new railway system and existing or to-be-built utility facilities, including both above- and below-ground facilities.

A response was also filed by the Peninsula Corridor Joint Powers Board (PCJPB) which supported the Authority’s petition and the proposed GO.

4. Discussion

The urban light rail and transit systems which serve individual cities or counties are almost universally operated by electricity fed through overhead lines or a third rail. The light rail or street car services can run all or part of their routes on tracks installed along streets and share space with automobile traffic. The electricity supplied to current transit vehicles is typically in the range of 600 to 1500 volts (V) direct current (dc). These voltage levels are sufficient to power light rail systems. Mass transit systems using third rail power distribution operate over dedicated rights of way. The electrical supplies to these light rail

and transit systems are regulated by the Commission's current safety rules pertaining to 0-5000 V systems, contained in GOs 95, 143-B, and others.

In contrast, intercity high speed rail lines, such as the Project, typically employ 25 kVac railroad electrification. This voltage level is needed to provide the necessary power and capacity to run conventional and high speed electrified trains efficiently without impacting the ability of the route to handle conventional diesel-powered trains if necessary. Existing Commission safety regulations governing overhead lines supplying power to electric railways are not consistent with generally accepted industry practice for electrifying railroads at 25 kVac. The Authority's proposed GO, set out as Appendix A to this order, codifies those generally accepted industry practices and sets new safety standards for the electrification of high-speed trains.

To address the limited voltage range in the existing GOs and the need to establish 25 kVac clearances that address the factors listed above, the Authority's engineers met with Commission staff from the Safety and Enforcement Division (SED)¹ including technical staff from the Railroad Operations Safety and Utilities Safety and Reliability Branches. The parties agreed that the current GO 95 rules do not address 25 kVac railroad electrification and a new set of rules needs to be developed for high speed trains. The new rules would focus on two main objectives: 1) addressing 25 kVac railroad electrification issues for the Project, and 2) developing a set of safety standards and clearances that will apply to the proposed high speed train installations. With these objectives in mind, the Authority's engineers drafted a new GO to govern 25 kVac railroad electrification

¹ SED was formerly known as the Consumer Protection and Safety Division or CPSD.

systems in California. This proposed GO was created by reviewing existing codes and standards that apply to such systems in the U.S. and elsewhere.

In the course of developing the proposed GO, the Authority has sought comments and suggestions from a wide variety of interested parties including the PCJPB, Southern California Regional Rail Authority, Orange County Transportation Authority, Los Angeles Metro, Burlington Northern Santa Fe Railroad, Amtrak, Union Pacific Railroad, Desert Xpress, SCE, and PG&E. Input from these entities is reflected in the draft GO.

The proposed GO provides the rules necessary to govern the design, construction, operation, and maintenance of 25 kVac railroad electrification systems. The rules have been written to provide safety guidelines for the elements, components and activities associated with the 25 kVac railroad electrification systems. The primary subject matters covered within the proposed GO include:

- **Performance Requirements:** Climatic and geographical conditions to be considered in the design of the system to ensure safe operation under normal and abnormal conditions.
- **25 kVac Clearances and Protection against Electric Shock:** Clearance requirements, features for barriers and screens, and location of warning signage required to minimize the possibility of direct contact with energized components.
- **Grounding and Bonding:** General requirements and principles for grounding and bonding components of the 25 kVac electrification system and other trackside metallic parts.

- **Strength Requirements:** Safety factors to be applied to the design of the system components to minimize the possibility of component failures during normal and abnormal conditions.
- **Safe Working Practices:** Principles to be employed to ensure the safety of parties working on or near energized components.
- **Reporting:** Requirements for document development, retention, and timelines in which incident reports are submitted to the California Public Utilities Commission (CPUC or Commission).

The parameters and values specified in each of the above sections of the draft GO are based upon United States (U.S.) national and international codes and existing 25 kVac electrified railroad industry practices within the U.S. and worldwide. Documents from the American Railway Engineering and Maintenance of Way Association, European Standards including European Norms and Technical Specification for Interoperability, California Administrative Code, CPUC, and the NESC were all referenced and used to guide the proposed rules.

The proposed GO contains the rules necessary to provide comprehensive guidelines for the safe construction, maintenance and operation of the 25 kVac electrification portion of the railroad. The performance requirements are derived from international, national, and California sources. Clearances and safety factors are based on American or European rules and working practices. Reporting requirements follow the existing railroad and CPUC requirements. Where more than one value for a particular parameter is prescribed by different standards or industry practice, the Authority proposes to adopt the value most appropriate to the new GO.

In view of the extensive work that has already been done in preparing this petition and the proposed GO in cooperation with Commission staff, as well as the limited scope of the responses from the state's large gas and electric utilities, we conclude that granting the petition and opening the rulemaking is in the public interest.

5. Preliminary Scoping Memo

5.1. Category

We preliminarily determine the category is quasi-legislative. We make this determination given that our primary focus is to adopt safety standards, requirements, policies, programs, and rules for the operation of electrified high-speed trains. This determination closely matches our definition of quasi-legislative proceedings:

'Quasi-legislative' proceedings are proceedings that establish policy or rules (including generic ratemaking policy or rules) affecting a class of regulated entities, including those proceedings in which the Commission investigates rates or practices for an entire regulated industry or class of entities within the industry. (Rule 1.3(d).)

This preliminary determination is not appealable, but shall be confirmed or changed by assigned Commissioner's ruling. The assigned Commissioner's determination as to category is subject to appeal. (Rules 7.3 and 7.6.)

5.2. Need for Hearing

We anticipate that the issues raised by the petition can be addressed in workshops, by filed comments and briefs, or by receipt into evidence of served proposed testimony without cross-examination. There may be disputed issues of material fact over which parties will seek to cross-examine others, particularly regarding adjudicatory facts. (*See* Rule 13.3(c).) Therefore, we preliminarily

determine that a hearing will be needed. (Rule 7.1(c).) The assigned Commissioner's Scoping Memo, after hearing the comments and recommendations of parties, will determine the need for hearing. (Rule 7.3(a).)

5.3. Issues

We seek the parties' input on several issues. Generally, we ask the parties to indicate what independent state authority we have to implement substantive or procedural rules; to comment specifically on the Authority's proposed GO, even if they oppose adoption of the proposed GO or any part thereof; to propose their own rules for the safe electrification of high speed trains if they disagree with the Authority's proposal; and to address generally the operational and safety issues raised by the electrification of high speed trains using high voltage alternating current lines, whether or not such issues are addressed in the Authority's proposed GO.

5.4. Schedule

The schedule should include provisions for comments on this Order Instituting Rulemaking (OIR), a prehearing conference (PHC), and the identification of preliminary information to begin our work.

5.4.1. Comments on the OIR

Comments on this OIR may be filed and served, and shall be filed and served within 21 days of the date this OIR is issued. Comments shall state any objections to the preliminary scoping memo regarding category, need for hearing, issues to be considered, or schedule. (Rule 6.2.) Reply comments may be filed and served, and shall be filed and served within seven days of the filing date of comments. To the extent known at the time, comments and reply comments should include the party's specific, exact wording for recommended issues, and specifics for schedule and other items.

Any comments recommending changes to the proposed schedule must be consistent with the proposed category, including a deadline for adopting standards and requirements by December 31, 2013, and resolving the proceeding within 18 months of the date the Scoping Memo and Ruling is issued. All comments which contain factual assertions must be verified. Unverified factual assertions will be given only the weight of argument. (Rule 6.2; Pub. Util. Code § 1701.5(a).)

5.4.2. Prehearing Conference

The assigned Commissioner or ALJ shall set a PHC for 45 to 60 days from today, or as soon as practicable. The ruling setting the PHC may also set a date for PHC statements. (Rule 7.2.) PHC statements, if any, should state with specificity the party's recommendations for anything necessary to complete the assigned Commissioner's Scoping Memo, plus anything else necessary to reasonably proceed with this proceeding. For example, PHC statements should, to the extent feasible, include the party's recommended exact proposed wording for issues, specific dates for the schedule, and necessary detail for hearing (to the extent known at that time). Moreover, to the extent possible, parties should employ their best efforts to prepare a joint PHC Statement reflecting agreement on issues, schedule and other matters for the Scoping Memo. If unable to reach complete agreement on all matters, parties may file a joint PHC Statement reflecting partial agreements, with separate supplemental PHC Statements reflecting individual differences. Alternatively, they may adopt the PHC Statement of one lead party with identification of limited exceptions.

We rely on respondents and parties to advise the Commission at the PHC regarding the most efficient way to proceed. Taking the recommendations of parties into account, we leave the details to the assigned Commissioner or ALJ.

5.4.3. Adopted Schedule

The preliminary adopted schedule is summarized below. It may be supplemented or changed by the assigned Commissioner or ALJ as necessary to promote efficient and equitable development of the record, and we expect that schedule modifications will occur. It is anticipated that portions of this proceeding shall be resolved by December 31, 2013, with the total proceeding resolved within 18 months of the date the Scoping Memo is issued.

(See § 1701.5.).

ADOPTED SCHEDULE

LINE NO.	ITEM	DATE
1	Requests to Process Office for inclusion on service list	14 days from date OIR issued
2	Comments on OIR	21 days from date OIR issued
3	Reply Comments on OIR	7 days from filing of comments
4	PHC Statements	To be determined
5	PHC	45 to 60 days from date OIR issued or as soon as practicable
6	Evidentiary Hearings if necessary	To be determined
7	Projected Submission Date	To be determined

6. Service List, Filing and Service of Documents, Subscription Service

The initial temporary service list applies for approximately the first 14 days. It will be replaced by an official service list as soon as the official list is published on the Commission's webpage.

The temporary service list is composed of Petitioner, Respondent electric utilities, the Peninsula Corridor Joint Powers Board and the Commission's SED. The temporary service list is on the Commission's web page for this proceeding, but will be replaced by the official service list as described next.

6.1. Official Service List

The state's 3 large electric utilities PG&E, SCE, and SDG&E will be included as parties on the official service list. Except for them, however, receipt of this OIR and inclusion on the temporary service list does not in itself ensure inclusion on the official service list. A person or entity (other than one of the 4 large electric utilities) seeking inclusion on the official service list must follow the instructions below.

6.1.1. During the First 14 Days

In order to be placed on the official service list you should ask, within 14 days of the mailing of this OIR, to be added to the official service list as either a party or a non-party. You should do this whether or not you are listed on the temporary service list. The request should be sent to the Process Office by e-mail (process_office@cpuc.ca.gov) or letter (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, California 94102). Please include the following information:

- Docket Number of this rulemaking;
- Name and entity or person represented (e.g., entity name; self);
- United States Postal Service Address;
- Telephone Number;
- E-mail Address;

- Desired Status;²
 - Party;
 - Non-party (either state service or information only);
- Expected participation (e.g., actively at hearing; actively through filed pleadings; monitoring only); and
- Brief statement of interest (e.g., potential gas producer; health concerns; safety concerns; interest in biomethane promotion; interest in open access; ratemaking concerns).

Also within 14 days, each of the 3 large electric utilities must submit an e-mail or letter to Process Office with a copy to the ALJ. The document must confirm that the temporary service list information for the electric utility is correct, or provide updated and accurate information.³

Commission practice is to allow only one person to formally represent each party. (See Commission's form for "Addition/Change to Service List.")⁴ To assist with efficient execution of this practice, we ask that both requests for party status and documents from gas utilities affirming information clearly identify the lead person to be placed in party status, plus the names with other necessary

² If you intend to file comments or otherwise actively participate, choose "Party" status. Individuals seeking only to monitor the proceeding (i.e., not participate as an active party) may request to be added to the service list as "Information Only." Another option for monitoring without being on the service list is "Subscription Service" discussed later in this OIR.

³ A response is expected from each electric utility. Failure for any reason to provide this document, however, will be treated as an affirmation by the electric utility that the information on the temporary service list is correct.

⁴ See http://docs.cpuc.ca.gov/published/service_lists/sl_index.htm.

information (e.g., e-mail addresses) for anyone else to be placed into another category.⁵

You may participate actively in this rulemaking (as a party) or merely monitor it (as a non-party). In either case, by acting within 14 days of the date this OIR is issued, you will be added to the official service list, thereby ensuring that you will receive all documents served in the proceeding. Fifteen days after this OIR is issued, or as soon as feasible thereafter, the Commission's Process Office will publish the official service list on our website (www.cpuc.ca.gov), and will update the list as necessary.

6.1.2. After the First 14 Days

If you are not on the official service list but want to participate after the first 14 days, you may do so as a party or a non-party. If you want to become a party, you may do this by filing and serving timely comments in the rulemaking, by filing and serving a written motion, by making an oral motion at the PHC, or as directed by the ALJ. (Rule 1.4(a)). If you make a written or oral motion, you must also comply with Rule 1.4(b). These rules are in the Commission's Rules of Practice and Procedure, which you can read at the Commission's website.

If, after the first 14 days, you want to be added to the official service list as a non-party (i.e., State Service or Information Only), send an e-mail or letter to the Process Office. Please include the docket number, name and entity

⁵ This is also true for state service. That is, for example, one person representing the Commission's SED may be identified for inclusion in the party category, with other DRA staff listed in the state service category. If another state agency elects to seek party status, one person from the agency should be named, and others should be in the state service category.

represented, U.S. postal service address, telephone number, e-mail address, and desired status.

6.1.3. Updating Information

Once you are on the official service list in any category, you must ensure that the information you have provided is up-to-date. (Rule 1.9(f).) To change your U.S. postal service address, telephone number, e-mail address, or the name of your representative, send the change to the Process Office by letter or e-mail, and send a copy to everyone on the official service list. A person or entity may ask to be removed from the state service or information only portions of the service list at any time by request to the Process Office.

6.2. Filing and Serving Documents

The Commission encourages electronic filing and service. (*See* Commission Rules 1.10 and 1.13, available on our website at <http://www.cpuc.ca.gov/PUC/documents>. All pleadings in this proceeding will be served on the service list as described below.

E-mail service of documents must occur no later than 5:00 p.m. on the date that service is scheduled to occur. Rule 1.10 provides for electronic service of documents, in a searchable format, unless the person on the service list did not provide an e-mail address. If no e-mail address was provided, service must be made by U.S. mail. We require concurrent e-mail service in this proceeding to all persons on the service list for whom an e-mail address is available, including those listed under "Information Only." Paper service is not required on those in the information only category without an e-mail address. Parties, however, must provide paper copies of served documents upon reasonable request of another party or person in any category (including information only). A paper copy, in addition to an electronic copy, shall be served on the assigned Commissioner.

Similarly, a paper copy, in addition to an electronic copy, shall be served on the ALJ. (Rule 1.10(e).)

E-mail communication during this OIR should include the following information on the subject line of the e-mail: R.xx-xx-xxx – [brief item description]. For example, when serving comments on the OIR (due 21 days from the date this OIR is mailed), the e-mail subject line should read: R.xx-xx-xxx – Comments on OIR by [party name]. When serving a PHC statement, the e-mail subject line should read: R.xx-xx-xxx – PHC Statement of [party name]; or R.xx-xx-xxx – Joint PHC Statement of [group reference].

Questions about the Commission’s filing and service procedures should be directed to the Commission’s Docket Office by telephone at (415) 703-2121, by e-mail at efile-help@cpuc.ca.gov, or by letter to Docket Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102.

6.3. Subscription Service

The Commission has a new process for monitoring a proceeding without being in the information only portion of the service this. That is, you can monitor the rulemaking by subscribing to receive electronic copies of documents in this proceeding that are published on the Commission’s website. There is no need to be on the service list in order to use the subscription service. Instructions for enrolling in the subscription service are available on the Commission’s website at <http://subscribecpuc.cpuc.ca.gov/>.

7. Public Advisor

Any person or entity interested in participating in this investigation who is unfamiliar with the Commission’s procedures should contact the Commission’s Public Advisor in San Francisco by telephone at (415) 703-2074 or (866) 849-8390, or by e-mail at public.advisor@cpuc.ca.gov. The Public Advisor’s office in

Los Angeles may be reached by telephone at (213) 576-7055 or (866) 849-8391, or by e-mail at public.advisor.la@cpuc.ca.gov. The TTY number is (866) 836-7825.

Written communication may be sent to Public Advisor, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, CA 94102.

8. Collaborative Process with other State Agencies

The Commission and its staff have successfully worked in a collaborative relationship with other state agencies and their staffs in several proceedings. This has promoted good communication among agencies sharing responsibilities for several matters. We will continue that collaborative relationship in this proceeding, to the extent allowed by the limited resources at each agency. As has been the case in the past, the Commission's Executive Director may work with the Executive Director at other agencies to review and refine the terms of the staff collaboration, as necessary. As it wishes, each agency may, but is not required to, become a party in our proceeding.

9. Intervenor Compensation

Any party that expects to claim intervenor compensation for its participation in this investigation shall file its notice of intent to claim intervenor compensation no later than 30 days after the PHC, or as otherwise directed by the ALJ. (See Rule 17.1.) Parties are strongly encouraged to use the standardized form attached to the Intervenor Compensation Program Guide, which may be found at: <http://www.cpuc.ca.gov/PUC/IntervenorCompGuide/index3.htm>. Questions may be directed to the Commission's Public Advisor

10. Ex Parte Communications

Communications with decision makers and advisors in this rulemaking are governed by Article 8 of the Rules of Practice and Procedure. (Rule 8.1, et seq.) *Ex parte* communications are allowed without restriction or reporting requirement in a quasi-legislative proceeding. (Rule 8.3(a).) No *ex parte* restrictions or reporting requirements apply in this proceeding.

11. Assignment of Proceeding

For the Petition for Rulemaking, Michel Peter Florio is the assigned Commissioner and Karl J. Bemesderfer is the assigned ALJ.

O R D E R

IT IS ORDERED that:

1. Petition for Rulemaking 12-10-011 is granted
2. This Order Instituting Rulemaking is adopted pursuant to Public Utilities Code Sections 768, 7710-7718, and 1708.5 and Rule 6.3 of the Commission's Rules of Practice and Procedure.
3. The preliminary categorization is quasi-legislative.
4. The preliminary determination is that hearing is needed.
5. The preliminary scope of issues is as stated in the body of this order.
6. Unless changed by the assigned Commissioner or Administrative Law Judge, the schedule stated in the body of this order is adopted. It is the Commission's intent to resolve some issues by December 31, 2013, and to resolve the full proceeding within 18 months of the date the Scoping Memo is issued.
7. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company are respondents to this Rulemaking, and are placed on notice that they shall be subject to Commission orders in this

matter. The Executive Director shall perform service of this order on each person on the initial temporary service list.

8. The official service list shall be created as described in the body of this order, and will be posted on the Commission's web page for this proceeding 15 days from the date this order is issued, or shortly thereafter.

9. Parties shall file and serve documents as described in the body of this order.

10. A person expecting to file an intervenor compensation claim for participation in this proceeding shall file a notice of intent to claim intervenor compensation no later than 30 days after the date of the prehearing conference, or as otherwise directed by the Administrative Law Judge.

11. *Ex parte* communications in this proceeding are permitted without restriction or reporting requirements.

12. Petition for Rulemaking 12-10-011 is closed.

This order is effective today.

Dated _____, at San Diego, California.