R.11-09-011 ALJ/RMD/sbf

# ATTACHMENT A



#### **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the Commission's own motion to improve distribution level interconnection rules and regulations for certain classes of electric generators and electric storage resources.

Rulemaking 11-09-011 (Filed September 22, 2011)

# JOINT DISTRIBUTION GROUP STUDY TARIFF FILING OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) AND SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)

# RANDALL J. LITTENEKER STACY W. WALTER

Pacific Gas and Electric Company 77 Beale Street San Francisco, CA 94105 Telephone: (415) 973-6611 Facsimile: (415) 973-0516 E-Mail: sww9@pge.com

Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

# **ON BEHALF OF ITSELF**

#### AND:

JAMES F. WALSH JONATHAN J. NEWLANDER Attorneys for: SAN DIEGO GAS & ELECTRIC COMPANY 101 Ash Street, HQ12 San Diego, California 92101 Telephone: (619) 699-5047 Facsimile: (619) 699-5027 E-mail: JNewlander@semprautilities.com

# **BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking on the Commission's own motion to improve distribution level interconnection rules and regulations for certain classes of electric generators and electric storage resources.

Rulemaking 11-09-011 (Filed September 22, 2011)

#### JOINT DISTRIBUTION GROUP STUDY TARIFF FILING OF PACIFIC GAS AND ELECTRIC COMPANY (U 39 E) AND SAN DIEGO GAS & ELECTRIC COMPANY (U 902 E)

#### I. INTRODUCTION

Pacific Gas and Electric Company (PG&E) makes this filing on behalf of itself and San Diego Gas & Electric Company (SDG&E) pursuant to Rule 9.1 of the California Public Utilities Commission ("Commission" or "CPUC") Rules of Practice and Procedure and in compliance with Administrative Law Judge DeAngelis's December 12, 2012 email. Following up on the workshop, proposals and comments regarding a Rule 21 Distribution Group Study Process (DGSP) submitted last summer, PG&E and SDG&E provide draft tariff language for the Commission's consideration.

# II. DRAFT TARIFF LANGUAGE IMPLEMENTING UPDATED DGSP PROPOSAL

The attached draft tariff language is based on the DGSP proposal filed by PG&E on July 10, 2012. This tariff will continue to be a work in progress and PG&E and SDG&E anticipate that revisions will continue to be made following the workshops and comments anticipated in the coming months. In addition there will likely be some adjustments needed given the interaction between Rule 21 and wholesale distribution tariff (WDT and WDAT for PG&E and SDG&E, respectively) projects that may be electrically interdependent. Of particular concern is the need to accommodate completion of the electric independence test for all projects entering both group processes at the same time that may be electrically interdependent. Given the potential for a

timeline squeeze, particularly in the first DGSP window of the year, PG&E and SDG&E have added language regarding the Distribution Group Study (DGS) Phase one study start date to the scoping meeting agenda items.<sup>1</sup> Throughout the attached document new language is indicated in redline format on PG&E's CPUC approved Rule 21 (Rule 21)<sup>2</sup>.

#### III. CONCLUSION

PG&E and SDG&E look forward to Commission approval of their joint DGSP proposal.

Respectfully submitted,

RANDALL J. LITTENEKER STACY W. WALTER

By: /s/ STACY W. WALTER

Pacific Gas and Electric Company 77 Beale Street San Francisco, CA 94105 Telephone: (415) 973-6611 Facsimile: (415) 973-0516 E-Mail: sww9@pge.com

Attorneys for PACIFIC GAS AND ELECTRIC COMPANY

**On Behalf of the Joint Parties:** Pacific Gas and Electric Company (U 39-E); San Diego Gas & Electric Company (U 902-E).

February 19, 2013

<sup>&</sup>lt;sup>1</sup> This language is included in new subsection F.3.b.(ii)(v).

<sup>&</sup>lt;sup>2</sup> PG&E's and SDG&E's Rule 21 tariffs are substantially the same and upon approval of this proposal by the CPUC, SDG&E would incorporate the redlined tariff language into its tariff.

# ATTACHMENT

PG&E			and Electric Company o, California	Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.		
			ELEC GENERATING FA	<b>FRIC RULE NC</b> CILITY INTER		ONS		Sheet 1
			TABLE	OF CONTEN	TS			(N) I
A.			TABLE OF CONTEN	TS			1	
B.			APPLICABILITY				11	
	1.		APPLICABILITY				11	
	2.		DEFINITIONS				11	
	3.		APPLICABLE CODES	S AND STAN	DARDS		12	
C.			DEFINITIONS				12	
D.			GENERAL, RULES, F OBLIGATIONS	RIGHTS AND			28	
	1.		AUTHORIZATION RE	EQUIRED TO	OPERATE		28	
	2.		SEPARATE AGREEN OTHER SERVICES	IENTS REQU	JIRED FOR	R	29	
	3		SERVICES UNDER T	-	LIMITED T	0	29	
	4.		COMPLIANCE WITH TARIFFS	LAWS, RULE	ES, AND		29	
	5.		DESIGN REVIEWS A	ND INSPECT	IONS		30	
	6.		RIGHT TO ACCESS				30	
	7.		CONFIDENTIALITY				30	
		a.	Scope				30	
		b.	Limitations on Scope				31	
		C.	Disclosure to Commis respective Staff	ssion, FERC, o	or their		32	
		d.	Required Disclosure				33	(N)
								(Continued)
Advice Le			Ю-Е 09-018 <b>В</b>	lssued by rian K. Cherry		Date Filed Effective		DRAFT 2/19/2013
1C0	vU.	12-1		lice President ulatory Relations		Resolution N	0.	

PG/8F	Sone		<b>and Electric Company</b> o, California	Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.		
				ECTRIC RULE NO FACILITY INTER		IONS		Sheet 2
			TABLE OF	CONTENTS (Co	nt'd.)			(N)   
D.			GENERAL, RULE (Conťd.)	S, RIGHTS AND	OBLIGAT	IONS		
	8.		PRUDENT OPER	ATION AND MAI	NTENANO	Έ	33	
	9.		CURTAILMENT A	ND DISCONNEC	CTION		34	
	10.		LOCAL FURNISH	ING BONDS			34	
	11		COORDINATION	WITH AFFECTE	D SYSTEI	MS	35	ļ
	12.		TRANSFERABILI <sup>-</sup> REQUEST	TY OF INTERCC	NNECTIC	N	35	
	13.		SPECIAL PROVIS			ET	35	
	14.		COMPLIANCE WI	TH ESTABLISH	ED TIMEL	INES	37	ļ
	15.		MODIFICATION C	OF TIMELINES			37	
E.			INTERCONNECT PROCESS	ION REQUEST S	SUBMISSI	ON	38	
	1.		PRE-APPLICATIC	N REPORT			38	į
	2.		INTERCONNECT	ION REQUEST F	PROCESS		40	
		a.	Applicant Initiates Provider	Contact with Dis	tribution		40	
		b.	Applicant Selects	a Study Process			40	ļ
		C.	Applicant Complet	es an Interconne	ection Req	uest	42	
		d.	Site Exclusivity				44	
	3.		INTERCONNECT STUDY DEPOSIT		EE AND		44	
		a.	Detailed Study De	posit			44	(N)
								(Continued)
Advice L Decision			10-E -09-018	lssued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No		DRAFT 2/19/2013
2C0				Regulatory Relations				

					. 04		0-	
			GENERATING FACI	LITY INTER		ONS	Sn	eet 3
			TABLE OF CON	TENTS (Co	nťd.)			(N) 
E.			INTERCONNECTION F PROCESS (Cont'd.)	REQUEST S	SUBMISSI	ON		
	4.		INTERCONNECTION C	COST RESP	ONSIBILI	ΤY	48	
		a.	Costs of Interconnection	n and Parall	el Operati	on	48	
		b.	Methodology and Timin	g of Cost Id	entificatior	ı	48	
		C.	Timing of Cost Identifica	ation			49	
		d.	Producer Costs During	Parallel Op	eration		49	Ì
		e.	Cost Allocation				49	İ
		f.	Summary Tables				50	
	5.		INTERCONNECTION F AND ASSIGNMENT OF			DN	52	i
		a.	Acknowledgement of In	terconnectio	on Reques	t	52	į
		b.	Deficiencies in Intercon	nection Rec	uest		52	
		C.	Assignment of Queue P	Position			54	l
		d.	Publication of the Interc	onnection C	Queue		55	ļ
F.			REVIEW PROCESS FOR REQUESTS	OR INTERC	ONNECTI	ON	56	
	1.		OVERVIEW OF THE IN REVIEW PROCESS	ITERCONN	ECTION		56	
		a.	Valid Interconnection R	equest			56	I
		b.	Fast Track Review				57	
		C.	Detailed Studies				58	
		d.	Compliance with Timelin	nes			58	(N)
							(0	Continued)
lvice Le ecision	etter No		10-E Is 09-018 <b>Bria</b>	ssued by		Date Filed	DRA	AFT 2/19/20

DECE			and Electric Company o, California	Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.		
			ELEC GENERATING FA	TRIC RULE NO		ONS		Sheet 4
			TABLE OF CO	ONTENTS (Co	nťd.)			(N)
F.			REVIEW PROCESS REQUESTS (Cont'd.		ONNECTIO	NC		
	2.		FAST TRACK INTER PROCESS	RCONNECTIO	N REVIEW	1	60	
		a.	Initial Review				60	
		b.	Optional Initial Revie	w Results Mee	eting		62	Ì
		C.	Supplemental Review	N			63	
		d.	Optional Supplement	tal Review Res	sults Meetir	ng	65	
		e.	Execution of the Ger Agreement	erator Interco	nnection		66	
	3.		DETAILED STUDY I REVIEW PROCESS		CTION		68	i
		a.	Detailed Study Track	Selection Pro	cess		68	
		b.	Distribution Group St	tudy Process			69	
		C.	Transmission Cluster	r Study Proces	s		70	İ
		d.	Independent Study F	rocess			71	
		e.	Generator Interconne	ection Agreem	ent		80	
		f.	Engineering & Procu	rement (E&P)	Agreemen	t	82	İ
	4.		INTERCONNECTIO	N FINANCIAL	SECURITY	(	83	
		a.	Types of Interconnect	tion Financial	Security		83	
		b.	Initial Posting of Inter	rconnection Fi	nancial Sec	curity	84	i
		C.	Second Posting of In Security	terconnection	Financial		86	
		d.	Third Posting of Inter	connection Fi	nancial Sec	curity	87	
		e.	General Effect of Wit Request or Terminat Interconnection Agre	ion of the Gen	erator		88	     (N)
			Financial Security					(Continued)
Advice Let	ter No:	411	0-E	Issued by		Date Filed		DRAFT 2/19/2013
Decision N 4C0	lo.	12-(		<b>Brian K. Cherry</b> Vice President gulatory Relations		Effective Resolution N	0.	

PG/8F			n <b>d Electric Company</b> o, California	Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.			31869-E* 30181-E
			ELEC GENERATING FA	<b>FRIC RULE NC</b> CILITY INTER		ONS		Sheet 5	
			TABLE OF CC	NTENTS (Co	nťd.)			(	(N) 
F.			REVIEW PROCESS PROCESS (Cont'd.)	FOR INTERC	ONNECTI	ON			
	5.		COMMISSIONING TE OPERATION	ESTING AND	PARALLE	L	95		
		a.	Commissioning Testin	ng			95		
		b.	Parallel Operation or Operation	Momentary Pa	arallel		95		
	6.		WITHDRAWAL				96		¦
G.			ENGINEERING REV	EW DETAILS	;		97		
	1.		INITIAL REVIEW SCI	REENS			99		i
		a.	Screen A: Is the PCC System?	on a Network	ed Second	dary	99		
		b.	Screen B: Is Certified	Equipment us	sed?		100		
		C.	Screen C: Is the Start acceptable limits?	ing Voltage D	rop within		101		
		d.	Screen D: Is the trans conductor rating exce		ondary		102		i
		e.	Screen E: Does the S cause unacceptable i		Generator		102		
		f.	Screen F: Is the Shor Contribution Ratio wit				103		
		g.	Screen G: Is the Short Capability Exceeded?		rupting		104		
		h.	Screen H: Is the line of with the Interconnection		compatible		105		
		i.	Screen I: Will power b PCC?	be exported ad	cross the		106	(	i (N)
								(Continu	ied)
Advice L				Issued by		Date Filed		DRAFT 2/	19/2013
Decision	INO.	12-(		<b>rian K. Cherry</b> /ice President		Effective Resolution No	D.		
5C0			Reg	ulatory Relations					

PG	8 E		Fran	a <b>s and Electric Company</b> cisco, California	, Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.			31870-E <sup>*</sup> 30182-E
					ELECTRIC RULE NO NG FACILITY INTER		ONS		Sheet (	6
				TABLE	OF CONTENTS (Co	onťd.)				(N) 
6	Э.			ENGINEERING R	EVIEW DETAILS (	Cont'd.)				i
		1.			SCREENS (Cont'd.	-				i
			j.	Screen J: Is the G Facility 11 kVA or	ross Rating of the ( less?	Generating		109		
			k.	Metering (NEM) G	Generating Facility a Generating Facility w ty less than or equa	/ith		109		
			I.		ission Dependency <u>amic/</u> Stability Test	and		110		
			m	capacity on the Lir	aggregate Generatir ne Section less that for all line sections alizing devices?	n 15% of L	ine oy	110		
		2.		SUPPLEMENTAL	REVIEW SCREEN	IS		111		
			a.	Screen N: Penetra	ation Test			112		
			b.	Screen O: Power	Quality and Voltage	e Tests		113		i
			c.	Screen P: Safety a	and Reliability Tests	3		114		
		3.		DETAILED STUD	Y SCREENS			116		
			a.		nterconnection Req ndent of the Transr			116		
			b.	independent of oth	nterconnection Req ner earlier-queued a ection requests inter /stem?	and yet to b	be g to	118		
			C.	Independent Stud	y Process Interconr	nection		119		 (N)
									(Contir	nued)
Advid	ce Le	tter N	lo:	4110-E	Issued by		Date Filed		DRAFT 2	2/19/2013
	sion l	Vo.		12-09-018	Brian K. Cherry Vice President		Effective Resolution N	o		
6C0					Regulatory Relations					

S		Gas and Electric Compar ncisco, California	y Cancelling	Revised Revised	Cal. P.U.C. Cal. P.U.C.		
		GENERAT	ELECTRIC RULE NO		ONS		Sheet 7
		TABLE	OF CONTENTS (Co	ont'd.)			(N) 
Н.			FACILITY DESIGN	AND		121	   
1	1.	-	FERCONNECTION A			122	   
	a	a Protective Fun	ctions Required			122	
	k	b. Momentary Pa	ralleling Generating	Facilities		123	ļ
	C	-	ment Required			124	
	C	d. Visible Discon	nect Required			124	l
	e	e. Drawings Req	uired			126	
	f	. Generating Fa	cility Conditions Not	Identified		126	
2	2.	PREVENTION		E		127	İ
	á	a. Voltage Regula	ation			127	
	k	o. Voltage Trip S	etting			128	
	C	c. Paralleling	-			131	İ
	C	d. Flicker				131	
	e	e. Integration with System Groun	n Distribution Provide ding	er's Distribu	ution	132	
	f	Frequency				133	
	Q	g. Harmonics				134	ļ
	ł	n. Direct Current	Injection			135	
	i	. Power Factor				135	l
3	3.	TECHNOLOG	Y SPECIFIC REQUI	REMENTS		136	ļ
	â	a. Technology Sp	pecific Requirements	i.		136	
	k	b. Induction Gene	erators			136	Ì
	C	c. Inverters				137	(N)
							(Continued)
lvice Lette cision No		4110-E	Issued by		Date Filed Effective	[	DRAFT 2/19/20
:0		12-09-018	Brian K. Cherry Vice President Regulatory Relations		Resolution N	0.	

			ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS	She	et 8
			TABLE OF CONTENTS (Cont'd.)		(N I
H.			GENERATING FACILITY DESIGN AND OPERATING REQUIREMENTS (Cont'd.)		
	4.		SUPPLEMENTAL GENERATING FACILITY REQUIREMENTS	137	
		a.	Fault Detection	137	Ì
		b.	Transfer Trip	137	I
		C.	Reclose Blocking	138	
I.			THIRD-PARTY INSTALLATIONS, RESERVATION OF UNUSED FACILITIES, AND REFUND OF SALVAGE VALUE	138	
	1.		INTERCONNECTION FACILITIES AND DISTRIBUTION UPGRADES	138	İ
	2.		THIRD-PARTY INSTALLATIONS	138	İ
	3.		RESERVATION OF UNUSED FACILITIES	139	
	4.		REFUND OF SALVAGE VALUE	139	İ
J.			METERING, MONITORING AND TELEMETERING	139	I
	1.		GENERAL REQUIREMENTS	139	
	2.		METERING BY NON-DISTRIBUTION PROVIDER PARTIES	139	 
	3.		NET GENERATION OUTPUT METERING	140	i
	4.		POINT OF COMMON COUPLING (PCC) METERING	141	
	5.		TELEMETERING	142	Ì
	6.		LOCATION	142	ļ
	7.		COSTS OF METERING	143	
	8.		MULTIPLE TARIFF METERING	143	í (N

Advice Letter No: Decision No.

4110-E 12-09-018

Issued by **Brian K. Cherry** Vice President Regulatory Relations

Date Filed Effective DRAFT 2/19/2013

Resolution No.

(Continued)

			ELECTR GENERATING FACI	LITY INTER		IONS	Sr	neet 9
			TABLE OF CON	TENTS (Co	nťd.)			(N) 
K.			DISPUTE RESOLUTION	PROCESS			144	
	1.		SCOPE				144	
	2.		PROCEDURES				144	
	3.		PERFORMANCE DURIN	G DISPUTE			146	
L.			CERTIFICATION AND TE	ESTING CR	ITERIA		146	Ì
	1.		INTRODUCTION				146	
	2.		CERTIFIED AND NON-C				148	
		a.	Certified Equipment				148	l
		b.	Non-Certified Equipment				149	į
	3.		TYPE TESTING				150	
		a.	Type Tests and Criteria for Equipment Certification	or Interconne	ection		150	
		b.	Anti-Islanding Test				152	Ì
		C.	Non-Export Test				152	
		d.	In-rush Current Test				153	
		e.	Surge Withstand Capabili	ty Test			153	i
		f.	Synchronization Test				154	
		g.	Paralleling Device Withsta	and Test			155	
	4.		PRODUCTION TESTING				155	(N)
	4.	g.	-					(

Advice Letter No: Decision No. 4110-E 12-09-018 Issued by **Brian K. Cherry** Vice President Regulatory Relations

(Continued) Date Filed Effective Resolution No.

DRAFT 2/19/2013

PG&E		Gas and Electric Company ncisco, California	Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
			ECTRIC RULE NO FACILITY INTERC		ONS	Sheet 10
		TABLE OF	CONTENTS (Con	ťd.)		(N) !
L.		CERTIFICATION AN (Cont'd.)	ND TESTING CRI	TERIA		
	5.	COMMISSIONING 1	ESTING		156	i l
	а	. Commissioning Test	ing		156	
	b	. Review, Study, and Test Verification Cos	Additional Commists	ssioning	157	
	С	. Other Checks and T	ests		158	
	d	. Certified Equipment			158	i i
	е	. Non-Certified Equipr	nent		159	
	f.	Verification of Settin	gs		159	1
	g	. Trip Tests			160	
	h	. In-service Tests			160	
	6.	PERIODIC TESTING	3		161	
	7.	TYPE TESTING PR		DEFINE	D 161	
	а	. Non-Exporting Test	Procedures		161	
	b	. In-rush Current Test	Procedures		169	
М		APPENDIX ONE			171	(N)
						(Continued)
Advice Le		4110-E	Issued by		Date Filed	DRAFT 2/19/2013
Decision	NO.	12-09-018	Brian K. Cherry Vice President		Effective Resolution No.	
10C0			Regulatory Relations			



I

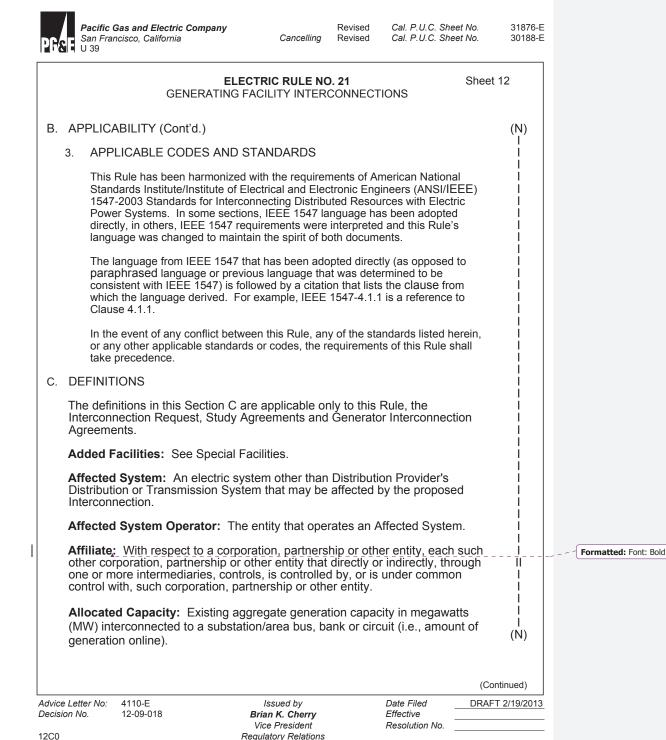
Pacific Gas and Electric Company San Francisco, California U 39

Cancelling

Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No. Revised Revised

31875-E\* 30187-E

	GENE	ELECTRIC RULE NO. 21 RATING FACILITY INTERCONI	NECTIONS	Sheet 11
B. A	PPLICABILITY			(N)
1.	APPLICABILITY			ļ
	requirements for tho Distribution Provider which the California jurisdiction. All Gene Distribution Provider Independent System to CAISO Tariff exce and 2) Generating F exports sent to the g Generating Facilities Commission jurisdict whether they interco Transmission Syster Distribution Provider	the Interconnection, operating se Generating Facilities to be 's Distribution System and Tra Public Utilities Commission (( erating Facilities seeking Inter 's Transmission System shall operator (CAISO) for Interce ept for 1) Net Energy Metering acilities that do not export to t rid (Non-Export Generating F and Non-Export Generating F and Non-Export Generating f ton shall interconnect under t nnect to Distribution Provider m. Subject to the requirement will allow the Interconnection or Transmission System.	connected to ansmission System Commission) has rconnection with apply to the Califor onnection and be sig g Generating Facilities the grid or sell any facilities). NEM Facilities subject to this Rule regardless 's Distribution or ts of this Rule,	rnia I ubject I ies I I s of I I
	System that are sub (FERC) jurisdiction s Distribution Tariff (W	nterconnections to Distribution ject to Federal Energy Regula shall apply under Distribution I /DT) whether they interconner on or Transmission System.	atory Commission Provider's Wholesa	1
2.	DEFINITIONS			
	Provider's other tarif Section C of this Rul shall only apply to th agreements and Ger	ed in this Rule, and not define fs shall have the meaning as e. The definitions set forth in is Rule, the Interconnection F nerator Interconnection Agree Provider's other tariffs.	cribed to such terms Section C of this R Request, study	Rule I
				(Continued)
Advice Le Decision I		Issued by Brian K. Cherry	Date Filed Effective	DRAFT 2/19/2013
11C0		Vice President Regulatory Relations	Resolution No.	



	PG	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Revised Original	Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No			
		ELECTI GENERATING FAC	RIC RULE NO			heet 13		
	C.	DEFINITIONS (Cont'd.)				(N)		
I		Anti-Islanding: A control scheme in Interconnection Facility that senses a Unintended Island.	istalled as particular particular prevents	art of the of the forma	Generating or ation of an		<b>Formatted:</b> Font: Bold	
		Applicant: The entity submitting an this Rule.	Interconnec	tion Requ	est pursuant to		<b>Formatted:</b> Font: Bold	
		Application: See Interconnection R	equest.					
		Available Capacity: Total Capacity Queued Capacity.	less the sur	n of Alloca	ated Capacity and		<b>Formatted:</b> Font: Bold	
		<b>Base Case:</b> Data including, but not and <u>dynamic</u> /stability data bases, un transmission facility assumptions, co special protection systems, and trans Interconnection Studies. The Base O Infrastructure Information (as that ter Case shall include (a) transmission f Provider or CAISO, as applicable, (b may have an impact on the Interconr Upgrades and Network Upgrades as below, and (d) generating facilities th Distribution System or CAISO Contro Affected Systems and may have an i (iii) have a pending request to interco Affected System; or (iv) are not inter CAISO Controlled Grid, but are subje Interconnection Agreement (or its eq which an unexecuted Generator Inte equivalent predecessor agreement) I FERC.	derlying load ntingency lis smission dia Case may ind m is defined acilities as a ) planned Di nection Requ sociated with at (i) are dir obled Grid; (ii mpact on the connected to ect to a fully uivalent pre- rconnection	d, generat tts, includi grams use clude Critit l by FERC pproved b stribution uest, (c) I h generati ectly inter ) are inter e Intercon b the Distributit o the Distributit decessor Agreemen	ion, and ng relevant ed to perform the cal Energy by Distribution Upgrades that Distribution ng facilities in (iv) connected to the connected to inection Request; on System or an ibution System or Generator agreement) or for nt (or its		Formatted: Font: Bold	
		Business Day: <u>Monday through Fri</u> Holidays.	day, excludi	ng Federa	I and State		<b>Formatted:</b> Font: Bold	
l		CAISO Controlled Grid: The system facilities that have been placed under	n of transmi r the CAISO	ssion line 's Operati	s and associated onal Control.		<b>Formatted:</b> Font: Bold	
		<b>CAISO Tariff:</b> The California Indeper Tariff.	endent Syste	em Operat	or FERC Electric	(N)	<b>Formatted:</b> Font: Bold	
	Advis	NotorNo: 4110 E	laguad by		Data Eilad	(Continued)		
	Advice Decisi	on No. 12-09-018 Bri	Issued by <b>an K. Cherry</b> ce President		Date Filed [ Effective Resolution No.	DRAFT 2/19/2013		
	13C0		latory Relations					

	PG&E	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee				
		ELECTRI GENERATING FACIL	<b>C RULE NO</b> ITY INTER(		IONS	Sheet 14			
	C.	DEFINITIONS (Cont'd.)				(N)			
		Calendar Day: Any day, including S State Holiday.	aturday, S	unday or a	a Federal and	     		Formatted: Font: Bold	
		<b>Certification Test:</b> A test pursuant to of certain equipment with Commission in order to be classified as Certified E performed by Nationally Recognized	n-approve Equipment.	d performa Certificat	ance standards tion Tests are	e      		Formatted: Font: Bold	
		Certification; Certified; Certificate: successful Certification Testing.	The docu	imented re	esults of a				
		<b>Certified Equipment:</b> Equipment th Certification Tests.	at has pas	sed all req	uired			Formatted: Font: Bold	
		<b>Commercial Operation:</b> The status commenced generating electricity, ex the period which Producer is engage commissioning of the Generating Fac	cluding ele d in on-site	ectricity ge test oper	enerated during ations and	1		Formatted: Font: Bold	
		<b>Commercial Operation Date:</b> The of Generating Facility commences Com the Parties.	date on wh Imercial Op	ich a Geno peration, a	erator at a s agreed to by				
		Commission: The Public Utilities Co	ommission	of the Sta	te of California	·		Formatted: Font: Bold	
		<b>Commissioning Test:</b> <u>A test perfor</u> or part of a Generating Facility to ach	med during nieve one d	g_the_comr or more of	nissioning of al the following:	  		Formatted: Font: Bold	
		Verify specific aspects of its performa	ance;						
		Calibrate its instrumentation;							
		Establish instrument or Protective Fu	nction set-	points.					
		Confidential Information: See Section	n D.7.						
		<b>Conservation Voltage Regulation (</b> Commission directed Distribution Pro the operation and design of distribution voltages.	vider to im	plement a	s applicable to	     (N)			
						(Continued)			
	Advice Le Decision	No. 12-09-018 Brian	sued by <b>K. Cherry</b>		Date Filed Effective	DRAFT 2/19/201	3		
	14C0		President ory Relations		Resolution No.		-		

PG&E	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Revi <i>Cancelling</i> Origi			
		ECTRIC RULE NO. 21	NECTIONS	Sheet 15	
C	. DEFINITIONS (Cont'd.)			(N)	
	<b>Construction Activities:</b> A irrevocable financial commit equipment or land for Distribution Upgrades, or Ne Interconnection Customer th governmental approvals nee Interconnection Facilities, D	ments for the purchase bution Provider's Interc etwork Upgrades assig nat occur after receipt o eded for Distribution Pr	e of major electrical connection Facilities, ned to the of all appropriate rovider's		
	Control Area: As defined in	n the CAISO Tariff.			<b>Formatted:</b> Font: Bold
	<b>Customer:</b> The entity that Service through Distribution Customer of Distribution Pro System.	Provider's Distribution	System or is a reta		
	Dedicated Transformer; D transformer that provides el Customer may or may not h	ectricity service to a sir	ngle Customer. The	)       	
	Delivery Network Upgrade the point where Distribution to the CAISO Controlled Gri as defined in the CAISO Ta	Provider's Distribution id, other than Reliability	System interconned	cts I	( Formatted: Font: Bold
	Detailed Study: <u>An Indepe</u> Transmission Cluster Study	ndent Study, a Distribu	ution Group Study o	ra	<b>Formatted:</b> Font: Bold
	Detailed Study Agreement Interconnection Customer a Parties' agreement to perfor Independent Study Process	nd Distribution Provide m Interconnection Stu	er which sets forth th dies under the	<u></u>	
	<b>Device:</b> A mechanism or p purpose or perform a function with the terms "equipment" meaning. See also Function	on. The term may be u and function without inf	used interchangeable tentional difference	y I in I	
	DGS Phase I Interconnect Phase I Interconnection Stu under the Distribution Group	dy performed by the D	istribution Provider	<u>5)</u> I (N)	Formatted: Font: Not Bold
				(Continued)	
Advice Le Decision		Issued by <b>Brian K. Cherry</b> Vice President	Date Filed Effective Resolution No.	DRAFT 2/19/2013	
15C0		Regulatory Relations			

PG/8	Pacific Gas and Electric CompanyRevisedCal. P.U.C. Sheet No.31880-San Francisco, CaliforniaCancellingRevisedCal. P.U.C. Sheet No.30192-U 39		
	ELECTRIC RULE NO. 21 Sheet 16 GENERATING FACILITY INTERCONNECTIONS		
C.	DEFINITIONS (Cont'd.) (N)		
	DGS Phase II Interconnection Study: Distribution Group Study (DGS) Phase II Interconnection Study performed by the Distribution provider under the Distribution Group Study Process per Section G.3.c.ii.		
	Dispute Resolution: See Section K.	(	Formatted: Font: Bold
	Distribution Group Study: An interconnection engineering study as defined in Section F.3.b of a group comprised of Interconnection Requests hat fail Screen R that will be studied pursuant to Section F.3.b because the Screen R results demonstrate they are electrically interdependent. Distribution Group Study Process: The interconnection study process set forth in Section F.3.b.	(	Formatted: Font: Bold
	Distribution Provider: Pacific Gas and Electric Company		Formatted: Font: Bold
	Distribution Service: The service of delivering energy over the Distribution System pursuant to the approved tariffs of Distribution Provider other than services directly related to the Interconnection of a Generating Facility under this Rule.		Formatted: Font: Bold
	Distribution Study Group: A group comprised of Interconnection Requests		
	hat fail Screen R that will be studied pursuant to Section F.3.b because the		
<u>-</u>	Screen R results demonstrate they are electrically interdependent.		
	Distribution System: All electrical wires, equipment, and other facilities owned or provided by Distribution Provider, other than Interconnection Facilities or the Transmission System, by which Distribution Provider provides Distribution Service to its Customers.	(	Formatted: Font: Bold
	Distribution Upgrades: The additions, modifications, and upgrades to Distribution Provider's Distribution System at or beyond the Point of Interconnection to facilitate interconnection of the Generating Facility and render the Distribution Service. Distribution Upgrades do not include Interconnection Facilities.	(	Formatted: Font: Bold
	Electrical Independence Test: The tests set forth in Section G.3 used to determine eligibility for the Independent Study Process. (N)		Formatted: Font: Bold Formatted: Normal, Indent: Left: 0.29", Hanging: 0.01", Space After: 12 pt, Line spacing: Exactly 12 pt, No widow/orphan control, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers
Advice I Decision 16C0	Letter No: 4110-E Issued by Date Filed DRAFT 2/19/2013 No. 12-09-018 <b>Brian K. Cherry</b> Effective Vice President Resolution No. Regulatory Relations	<u>3</u> 	

PG	<b>Pacific Gas and Electric Comp.</b> San Francisco, California U 39	<b>any</b> Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
	GENERA	ELECTRIC RULE NO		TIONS	Sheet 17	
C.	DEFINITIONS (Cont'd.)				(N)	
	<b>Emergency:</b> Whenever in Operating Condition or other is necessary for emergency necessary to protect persor others from damage or inter Generating Facility, or the fa a malfunction of any electric thereof.	r hazardous condition service restoration, a s, Distribution Provide ference caused by Int ailure of protective dev	exists or nd such in er's faciliti terconnect vice to op	whenever acces mmediate action es or property o tion Customer's erate properly, c	nis I f I	Formatted: Font: Bold
	Energy-Only Deliverability Interconnection Customer for Distribution System, the responsible only for the coresponsible for the costs of Facility will be deemed to have CAISO Tariff of zero.	or a Generating Facilit sult of which is that the osts of Reliability Netw Delivery Network Upg	y intercor Intercon vork Upgr jrades, bu	nected to nection Custome ades and is not it the Generating		( Formatted: Font: Bold
	<b>Engineering and Procure</b> Distribution Provider to beg items necessary for the esta advance the implementation	in engineering and pro ablishment of the Inter	connectio	t of long lead-tin on in order to	es I ne I I	
	<b>Exporting Generating Fac</b> Export Generating Facility, Generating Facility.	<b>ility:</b> Any Generating NEM Generating Facil	Facility o lity, or une	ther than a Non compensated	-	
	Fast Track Process:_ The F.2.	interconnection study	process s	set forth in Section	on I	
	Federal Energy Regulator	y Commission: _Refe	erred to he	erein as FERC.		
	Field Testing: Testing per equipment meets Distribution Interconnection.	formed in the field to c on Provider's requirem	letermine ients for s	whether afe and reliable		
	<b>Function:</b> Some combinate specific features or capabili intended to encompass a ra- device to a section of softwa larger piece of equipment to	ties. Its use, as in Pro ange of implementation are and specific piece	otective Fund ns from a s of hardv	unction, is single-purpose vare within a	de I I I	
	<b>Generating Facility:</b> All G facilities, excluding Intercon for the purpose of producing	nection Facilities, owr	ned or pro	vided by Produc	er I cer (N) (Continued)	
	e Letter No: 4110-E ion No. 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.	DRAFT 2/19/2013	

1	PG/		Gas and Electric Co ncisco, California	ompany	Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
			GENE	ELECTR RATING FACI	LITY INTER		TIONS	Sheet 18	
	C.	DEFINITI	ONS (Cont'd.)					(N)	
		and the a					nerating Facility here it includes	, 	Formatted: Font: Bold
1		electrical	energy, includir	ng all of its pro	otective and	d control fu	solar energy into unctions and se a Generating		<b>Formatted:</b> Font: Bold
		Distributio Generatir Interconn power pu	ection. For the rchase agreeme	Producer pro gives certain r purpose of th ents authorize	oviding for the ights and o his Rule, Ne and by the Co	he Interco bligations et Energy I ommissior	nnection of a to effect or end Metering or		
defined as Generator Interconnection Agreements.       I         Good Utility Practice: Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, methods, or acts generally accepted in the region.									
		regulatory or other gov respective or entitled authority	ental Authorit y or administrati overnmental supernmental author e facilities, or the to exercise and or power; providention Custome	or I   I					
		Namepla	ating; Gross Na te Capacity: T ating Facility as r(s).						
			d: The electric d by the Custon						
	Advice	e Letter No:	4110-E		ssued by		Date Filed	(Continued) DRAFT 2/19/2013	
		ion No.	12-09-018	<b>Bria</b> Vic	n <b>K. Cherry</b> e President atory Relations		Effective Resolution No.		

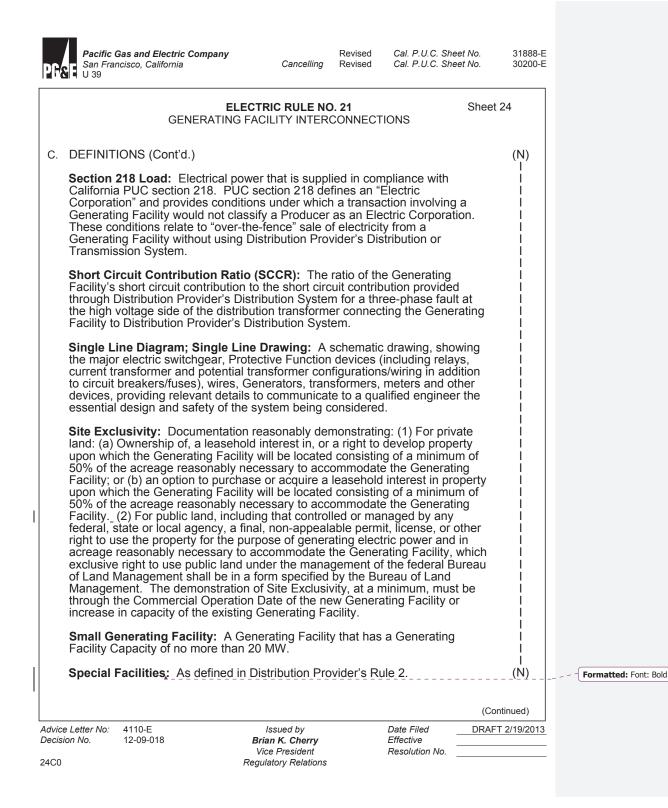
	PG/8	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee			
		ELEC GENERATING FA	<b>RIC RULE NO</b> CILITY INTER		TIONS	Sheet 19		
	C.	DEFINITIONS (Cont'd.)				(N)		
		Independent Study Process: _The Section F.3.d.	interconnect	ion study	process set fort	h in l		
		Independent Study Process Stud into by the Interconnection Custom forth the Parties' agreement to perf Independent Study Process.	er and Distrib	ution Prov	vider which sets	1		
		Initial Review: See Section F.2.a.						
		In-rush Current:_ The current dete	mined by the	In-rush C	Current Test.	i		
1		In-Service Date: The estimated date expects it will be ready to begin use Facilities.	te upon whick of Distributio	h Applicar n Provide	nt reasonably r's Interconnect	ion I I		
		Interconnection; Interconnected: Facility in accordance with the requ Operation with Distribution Provider occur (has occurred).	irements of th	nis Rule so	o that Parallel			
		Interconnection Agreement: See	Generator In	terconnec	ction Agreement	t. I		
		Interconnection Customer: See	Applicant.				<b>Formatted:</b> For	nt: Bold
1		Interconnection Facilities: The e equipment that are required in addi electric Distribution Service to a Cu Interconnection Facilities may be lo Common Coupling as appropriate t Interconnection Facilities may be in separately. Interconnection Facilitie Distribution Provider.	tion to the fac stomer to allo cated on eithe o their purpos tegral to a Ge	ilities request w Intercont er side of the and des the rating l	uired to provide nnection. the Point of sign. Facility or provid	led I r I		
1		Interconnection Facilities Study: Provider for an Interconnection Cus Process to determine a list of facilit Interconnection Facilities, Distributi- identified in the Interconnection Sys facilities, and the time required to in Distribution Provider's Distribution of study is defined in Section G.3.c.	tomer under t es (including on Upgrades, tem Impact S terconnect th	the Indepe Distributio and Netw Study), the e Genera	endent Study on Provider's ork Upgrades a cost of those ting Facility with	n I	( <b>Formatted:</b> For	nt: Bold
	A -4 -	1-#N 4440 F	la a va al l			(Continued)		
	Advice Decisic 19C0	,	Issued by rian K. Cherry /ice President ulatory Relations		Date Filed Effective Resolution No	DRAFT 2/19/2013		

	PG&	Pacific Gas and Electric Company San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
			ECTRIC RULE NO FACILITY INTER			Sheet 20	
	C.	DEFINITIONS (Cont'd.)				(N)	
		Interconnection Financial Sec in Section F.4.a.	urity: Any of the	e financial	instruments list	ed l	Formatted: Font: Bold
		Interconnection Request: An Generating Facility, or to increas Modification to the operating cha Facility that is interconnected wi Transmission System.	se the capacity o aracteristics of, a	f, or make n existing	a Material Generating		Formatted: Font: Bold
		Interconnection Study: A stud Interconnection of a Generating Distribution System or Transmis	Facility with Dist	ribution P	rovider's		Formatted: Font: Bold
		Interconnection System Impare by Distribution Provider for an Ir Independent Study Process that interconnection on the safety an Distribution and/or Transmission System. The scope of the study	terconnection Content tevaluates the in d reliability of Dis System and, if a	ustomer u npact of th stribution l applicable	nder the le proposed Provider's , an Affected	d  I I I I I I	Formatted: Font: Bold
		Island; Islanding: A condition in which one or more Generating a portion of Distribution Provider isolated from the remainder of D	g Facilities delive 's Distribution Sy	er power to stem that	Customers usi	em I ng I I I	
		Large Generating Facility: A C Facility Capacity of more than 2	Generating Facili 0 MW.	ty having	a Generating		Formatted: Font: Bold
		Line Section: That portion of D Transmission System connected sectionalizing devices or the end	d to a Customer I	bounded b	bution or by automatic		
		<b>Local Furnishing Bond:</b> Tax-e the local furnishing of electric er Code, 26 U.S.C. § 142(f).	exempt bonds util lergy, as describ	lized to fin ed in Inter	ance facilities fo nal Revenue	or I	
		Local Furnishing Distribution owns facilities financed by Loca			n Provider that		
		Material Modification: Those provide the termination of any Interconnection priority date or a change in Poin does not include a change in ownection of the termination of the termination of the termination of the termination of the termination of the termination of the termination of termin	ction Request wit t of Interconnecti	th <u>the san</u> on. A Ma	ne or a later que terial Modification	ue [	Formatted: Font: Bold
	Advice	Letter No: 4110-E	Issued by		Date Filed	(Continued) DRAFT 2/19/2013	
	Decisio		Brian K. Cherry Vice President		Effective Resolution No.	2.0.1 1 210/2010	
	20C0		Regulatory Relations				

PGa	San Fran	Gas and Electric Company acisco, California	Cancelling	Revised Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		85-Е 97-Е		
			<b>LECTRIC RULE NO</b> G FACILITY INTER		TIONS	Sheet 21			
C.	DEFINIT	IONS (Cont'd.)				(Ņ)			
	energy in	The measurement of the interval of the inte							
		<b>Equipment:</b> All equi conduit, etc., that are			including meter				
		ary Parallel Operation of the Distribution and T r less.							
		Iy Recognized Testined to perform the Certif				le. I			
	electricity	rgy Metering (NEM): / between Producer ar illities Code (PUC) sec							
	output in also be th energy p auxiliary with no H Point of 0 218 Load	eration Output Meter kW or energy in kWh, he measurement of the roduced by a Generat equipment necessary lost Load and/or Secti Common Coupling. Fo d, Metering that is loca load(s) and prior to se	from a given Gen e difference betwe or and the electric to operate the Ge on 218 Load, Mete or a Generator with ted at the Genera	erating Fa en the to al energy nerator. I ering that h Host Lo tor but aft	acility. This may tal electrical consumed by the For a Generator is located at the ad and/or Section er the point of	ne I I e I			
	Net Ratin consump	ng or Net Nameplate	Rating: The Gros	ss Rating bad.	minus the	   		Formatted: Font:	: Bold
	Network Upgrades	Upgrades: Delivery s.	Network Upgrades	s and Reli	ability Network			Formatted: Font:	: Bold
1	secondar for supply secondar street net	ed Secondary Syster ries of the distribution ying electricity directly ry networks: grid netwo tworks) and Spot Netv 1547.6 for additional do	ransformers are c to consumers Th orks (also referred orks. Synonyms:	connected nere are to to as are	to a common b wo types of a networks or			- <b>Formatted:</b> Font:	: Bold
Advice Decisio 21C0	e Letter No: on No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No	DRAFT 2/19/2			

	PG	Pacific Gas and Electric Company San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	31886-E 30198-E	
		ELECTF GENERATING FAC	t 22				
	C.	DEFINITIONS (Cont'd.)				(N)	
		<b>Non-Emergency:</b> Conditions or situation including but not limited to meter read replacement, and maintenance.	ations that a ding, inspect	tion, testin	ergencies, g, routine repairs,		(Formatted: Font: Bold
		Non-Export; Non-Exporting: When designed such that the Generator out designed to prevent the transfer of el Facility to Distribution Provider's Distri described in Appendix One.	put is used ectrical ener	for Host L gy from th	oad only and is the Generating		( Formatted: Font: Bold
I		<b>Non-Islanding:</b> Designed to detect a Island with matched load and genera voltage and frequency trip is not cons Islanding.	tion. Relian	ce solely	on under/over		<b>Formatted:</b> Font: Bold
		<b>Parallel Operation:</b> The simultaneous delivered or received by Distribution I purpose of this Rule, Parallel Operati Facilities that are Interconnected with Transmission System for more than 6	Provider whi on includes Distribution	le Intercoi only those Provider	nected. For the Generating s Distribution or	         	( Formatted: Font: Bold
		<b>Paralleling Device:</b> An electrical de under the control of a synchronization connect an energized generator to ar energized power systems to each oth	n relay or by n energized	a qualifie	d operator to		(Formatted: Font: Bold
		Party, Parties: Applicant or Distribut	ion Provide	r <u>.</u>			Formatted: Font: Bold
		<b>Periodic Test:</b> A test performed on J Facility/Interconnection Facilities at p intervals to achieve one or more of th its performance; 2) calibrate instrume instrument or Protective Function set	re-determine e following: entation; and	ed time or 1) verify s	operational pecific aspects of		<b>Formatted:</b> Font: Bold
		<b>Point of Common Coupling (PCC):</b> the electrical conductors of Distribution of Producer.	The transfe on Provider a	er point for and the el	electricity between ectrical conductors		(Formatted: Font: Bold
		Point of Interconnection: The point connect with Distribution Provider's D may or may not be coincident with the	istribution o	r Transmi	ssion System. This	(N)	<b>Formatted:</b> Font: Bold
	Advic	a Lottor No: 110 E	lesued by			ontinued)	
		ion No. 12-09-018 <b>Bri</b> a Via	Issued by an K. Cherry ce President atory Relations		Effective	<u>ET 2/19/2013</u>	

		<b>s and Electric Company</b> sco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31887-Е 30199-Е		
		ELEC GENERATING F/	TRIC RULE NO Acility Interg		IONS	Sheet 23	3		
	C. DEFINITIO	DNS (Cont'd.)				(	(N)		
I	than those Section F.3 for the con Distribution Customer, activities, e obtain gove	required by an Enginee 3.f, undertaken prior to 0 struction of Distribution n Upgrades, or Network including, but not limited environmental analysis, ernmental approvals for Distribution Upgrades, o	ring and Procu Construction Ac Provider's Inter Upgrades assi d to, preliminar or other activition Distribution Pro	rement A stivities in connection gned to the y enginee es specific ovider's li	greement unde order to prepa on Facilities, ne Interconnec ering, permittin cally needed to	er ire tion g		( <b>Formatted:</b> Font: Bold	
	with Distrib Generating	The entity that execute oution Provider. Produce g Facility, but is respons ator Interconnection Agr	er may or may ble for the righ	not own c	or operate the		         		
l	Production production	n Test: A test performe line to verify certain asp	d on each devi ects of its perf	ce comin ormance.	g off the		       	Formatted: Font: Bold	
	Generating	<b>Function(s):</b> The equips Facility (whether discreption pose is to protect against	te or integrate	d with oth	er functions)				
	as changed engineering	lectrical Practices: Th d from time to time, that g and operations to des d with safety, dependab	are commonly gn and operate	used in p e electric	orudent electric equipment	nt, :al			
	Queue Pos	sition: _See Section E.5	5.C.						
l	Queued Ca substation/	apacity: Aggregate que /area bus, bank or circui	eued generatio t (i.e., amount	n capacity of genera	y (in MW) for a tion in the que	ue).		Formatted: Font: Bold	
	taken by a Good Utility	le Efforts:_ With respect Party under this Rule, e y Practice and are other d use to protect its own	fforts that are t wise substantia	imely and	l consistent wi	th			
	point where CAISO Co	• <b>Network Upgrades:</b> T e Distribution Provider's ntrolled Grid, necessary safely and reliably to th Tariff.	Distribution Sy to interconnect	vstem inte t one or n	rconnects to the tot nore Generation	ne ng n	I I I (N)		
			Issued by <b>Brian K. Cherry</b> Vice President gulatory Relations		Date Filed Effective Resolution No.	DRAFT 2	/19/2013		



PG	Pacific Gas and Electric CompanyRevisedCal. P.U.C. Sheet No.31889-ESan Francisco, CaliforniaCancellingRevisedCal. P.U.C. Sheet No.30201-EU 39
	ELECTRIC RULE NO. 21 Sheet 25 GENERATING FACILITY INTERCONNECTIONS
C.	DEFINITIONS (Cont'd.)       (N)         Spot Network: For purposes of this Rule, a Spot Network is a type of distribution system found within modern commercial buildings to provide high reliability of service to a single customer.       I         Starting Voltage Drop: The percentage voltage drop at a specified point resulting from In-rush Current. The Starting Voltage Drop can also be expressed in volts on a particular base voltage, (e.g. 6 volts on a 120-volt       I
	base, yielding a 5% drop).       I         Supplemental Review: See Section F.2.c.       I         System Integrity: The condition under which Distribution Provider's       I         Distribution and Transmission System is deemed safe and can reliably       I         perform its intended functions in accordance with the safety and reliability       I         rules of Distribution Provider.       I
	Telemetering:       The electrical or electronic transmittal of Metering data on a real-time basis to Distribution Provider.         Total Capacity:       Capacity (in MW) of substation/area bus, bank or circuit based on normal or operating ratings.         Transfer Trip:       A Protective Function that trips a Generating Facility remotely
	by means of an automated communications link controlled by Distribution Provider.  Transient/Dynamic Stability: The ability of an electrical system to withstand disturbances. Transient/Dynamic Stability studies are performed to ensure power system stability and are time-based simulations that assess the performance of the power system during and shortly following system disturbances.
	Transmission Cluster Study Process: The cluster study process as defined in Distribution Provider's Wholesale Distribution Tariff.       Image: Cluster Study Process: The cluster study process as defined in Distribution Provider's Wholesale Distribution Tariff.         Transmission System: Transmission facilities owned by Distribution Provider that have been placed under the CAISO's operational control and are part of the CAISO Controlled Grid, as defined in the CAISO Tariff.       Image: Cluster Study Process: The cluster study process as defined in the CAISO Tariff.
	Type Test: A test performed on a sample of a particular model of a device to I verify specific aspects of its design, construction and performance. (N)
	te Letter No: 4110-E Issued by Date Filed DRAFT 2/19/2013 Sion No. 12-09-018 Brian K. Cherry Effective Vice President Resolution No. Regulatory Relations

PGs	Pacin San U 39	<b>fic Gas and Electric Compa</b> Francisco, California	any Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She	
		GENERA	ELECTRIC RULE NO		IONS	Sheet 26
C.	DEFIN	IITIONS (Cont'd.)				(N)
	portio	ended Island: The c n of Distribution Provi oution Provider.				
	result operat	e Operating Conditi in harm to personnel, tion outside pre-estab onnection Agreement	damage to equipment lished parameters re-	nt, loss of	System Integri	
,	Whole	esale Distribution Ta	riff: PG&E's Wholes	sale Distrik	oution Tariff (W	'DT) I
D.	GENE	RAL, RULES, RIGHT	S AND OBLIGATION	NS		
1	1. Al	JTHORIZATION REG	UIRED TO OPERAT	E		
	In D D th W	Producer must comp terconnection Agreer istribution Provider's of peration of its General istribution or Transmi- is Rule in a non-discrithhold its permission acility with Distribution	nent with Distribution express written permi ating Facility with Dist ssion System. Distrik iminatory manner and for Parallel Operation	Provider, ission befor ribution Pro- oution Pro- d shall not n of Produ	and receive ore Parallel rovider's vider shall appl unreasonably cer's Generatii	ng l
	2. SI	EPARATE AGREEME	ENTS REQUIRED FO	OR OTHER	R SERVICES	
	in כו in	Producer requiring of cluding, but not limite urtailment or interrupti to agreements with D ccordance with Distrib	d to, Distribution Servion of Producer's Ger istribution Provider for	vice during nerating Fa or such ser	) periods of acility, must en rvices in	ter I I
	3. SI	ERVICES UNDER TH	IIS TARIFF LIMITED	TO INTER	RCONNECTIO	N
	S D tra	terconnection with Di ystem under this Rule istribution Provider's I ansmission, distributio ose rights.	e does not provide a F Distribution or Transn	Producer a nission Sy	iny rights to uti stem for the	lize I
Advice	Letter N	o: 4110-E	Issued by		Date Filed	(Continued) DRAFT 2/19/2013
Decisio		12-09-018	Brian K. Cherry Vice President		Effective Resolution No.	51441 2/10/2013

Regulatory Relations

PG		_	<b>as and Electric</b> cisco, California	Company	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31891-Е 30203-Е	
			GEN		TRIC RULE NC		IONS	Sheet	27	
D.	GE	NERA	L, RULES, F	IGHTS AND	OBLIGATION	IS (Cont'd	.)		(N)	
	4. COMPLIANCE WITH LAWS, RULES, AND TARIFFS									
A Producer shall ascertain and comply with applicable Commission- approved tariffs of Distribution Provider; applicable FERC-approved rules, tariffs, and regulations; and any local, state or federal law, statute or regulation which applies to the design, siting, construction, installation, operation, or any other aspect of Producer's Generating Facility and Interconnection Facilities.										
	5.	DESI	GN REVIEW	S AND INSP	ECTIONS				i	
		Produ Produ comm Distril Produ requir for Pa Produ Interco Provid	icer's Genera icer's Genera nencement o pution or Tra icer to make rements of the rallel Operation cer's design onnection Fa der shall not,	ating and Inte ating and/or I f Parallel Opensmission Sy modifications is Rule. Dist ion shall not or as warran acilities' safet by reason of	nterconnection eration with Di stem. Distributions as necessary ribution Provide be construed ting the Gene y, durability of such review of	acilities a r Facilities stribution ution Prov y to comp ler's revie as confirm rating Fac reliability or lack of	nd to inspect a s prior to the Provider's ider may requily with the w and authoriz ining or endorsi silities' and/or . Distribution	ire a zation ing		
	6. RIGHT TO ACCESS									
		reaso Distril tariffs	nably access oution Provid approved by	sible to Distril ler to perform / the Commis	oution Provide its duties and ssion, and und	r personn I exercise er any Ge	n Facilities sha el as necessa its rights unde nerator der and Produc	ry for er its	     (N)	
								(Con	tinued)	
Advice Decisi			4110-E 12-09-018	E	lssued by B <b>rian K. Cherry</b>	5		DRAFT 2/19/2013		
Vice President     Resolution No.       27C0     Regulatory Relations										

7. C p p (i ir d C C Ir n e ir r o p p If		include, without l prmation relating her, Producer, or tion D.7 as Party og to a Party's tec , and pricing. Dis in the Interconne mer unless authors provided to Dist	imitation to the pro- Distribut or collecy stribution ection Re porized to	, confidential, esent or planr ion Provider ctively as Part r, research and n Provider sha equest to prop do so by the	ies), d II not	(N) - - - - - - - - - - - - -	
7. C p p (i ir d C C Ir n e ir r o p p If	CONFIDENTIALITY a. Scope Confidential Information shall proprietary or trade secret info business of Applicant, Custom (individually referred to in Sec including all information relatin development, business affairs use the information contained discounted tariffs to the Custo Customer or the information is Customer through other mean	include, without l prmation relating her, Producer, or tion D.7 as Party og to a Party's tec , and pricing. Dis in the Interconne mer unless authors provided to Dist	imitation to the pro- Distribut or colleo chnology stribution ection Re prized to	, confidential, esent or planr ion Provider ctively as Part r, research and Provider sha equest to prop do so by the	ies), d II not	(N) - - - - - - - - - - - - -	
a C pp (i i i d C C C I r r o p p o p f f f	a. Scope Confidential Information shall proprietary or trade secret info business of Applicant, Custom (individually referred to in Sec including all information relatir development, business affairs use the information contained discounted tariffs to the Custo Customer or the information is Customer through other mean	prmation relating her, Producer, or tion D.7 as Party by to a Party's teo and pricing. Dis in the Interconne mer unless author s provided to Dist	to the pro- Distribut or collect chnology stribution fection Re- porized to	esent or planr tion Provider ctively as Part r, research and Provider sha equest to prop do so by the	ies), d II not		
C pb (i ir d CC C C C C C C C C C C C C C C C C C	Confidential Information shall proprietary or trade secret info business of Applicant, Custom (individually referred to in Sec including all information relatir development, business affairs use the information contained discounted tariffs to the Custo Customer or the information is Customer through other mean	prmation relating her, Producer, or tion D.7 as Party by to a Party's teo and pricing. Dis in the Interconne mer unless author s provided to Dist	to the pro- Distribut or collect chnology stribution fection Re- porized to	esent or planr tion Provider ctively as Part r, research and Provider sha equest to prop do so by the	ies), d II not		
p b (i d d C C C I r r e i r c o p f f	proprietary or trade secret info business of Applicant, Custom (individually referred to in Sec including all information relatir development, business affairs use the information contained discounted tariffs to the Custo Customer or the information is Customer through other mean	prmation relating her, Producer, or tion D.7 as Party by to a Party's teo and pricing. Dis in the Interconne mer unless author s provided to Dist	to the pro- Distribut or collect chnology stribution fection Re- porized to	esent or planr tion Provider ctively as Part r, research and Provider sha equest to prop do so by the	ies), d II not		
n e ir o p p o p	Information is Confidential Info			Provider by th			
ļf	marked in writing as confident electronic materials), or, if the inspection, if the Party providin receiving the information that of this Rule all design, operatin provided by Applicant shall be of whether it is clearly marked provided in section D.7.b. belo	tial on the face of information is co ng the information the information is ng specifications deemed Confide or otherwise des	the doci onveyed on orally in confider , and me ential Info	ument (includi orally or by nforms the Pa ntial. For purp etering data ormation rega	ng irty poses rdless		
C to re	If requested by either Party, the basis for asserting that the infor- confidential treatment, and the to the appropriate Governmen responsible for the costs asso to its information.	ormation referred e requesting Party tal Authority. Ea	t to in thi y may di ich Party	s Article warra sclose such w shall be	ants rriting		
b	b. Limitations on Scope						
l Ir	Confidential Information shall Interconnection Request that i pursuant to Section E.5.d of th	may be provided	nation pe in a pub	ertaining to ea licly-posted qu	ch Jeue	I I (N) ←	<ul> <li>- Formatted: R-Edit Notations, L spacing: single</li> </ul>
Advice Letter I Decision No.		Issued by Brian K. Cherry		Date Filed Effective Resolution No.	(Contin DRAFT 2	·	

	c Gas and Electric Company rancisco, California	Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
		CTRIC RULE NO		IONS	Sheet 29	
D. GENER	RAL, RULES, RIGHTS AN	D OBLIGATION	IS (Cont'd	.)	(N)	
7. CO	NFIDENTIALITY (Cont'd.)	1				
b.	Limitations on Scope (Co	nťd.)				
	Confidential Information s generally available to the by the receiving Party; (2) Party on a non-confidentia Party; (3) was supplied to third party, who, to the kn inquiry, was under no obli information confidential; ( receiving Party without re disclosing Party; (5) is, or wrongful act or omission of accordance with Section I by any Governmental Aut by law or subpoena.	public other tha was in the lawf al basis before r the receiving P owledge of the gation to the dis 4) was independ ference to Confi becomes, public of the receiving D.7.d, Required	n as a res iul posses ecceiving i arty witho receiving l sclosing P dently dev dential In cly knowr Party; or ( Disclosur	sult of a disclosu sion of the rece t from the discle ut restriction by Party after due arty to keep suc eloped by the formation of the h, through no 6) is required, i e, to be disclos	iving I psing I r a I ch I ch I n I ed I	
	Information designated as deemed confidential if the confidential notifies the of	Party that desig	gnated the	e information as	s	
С.	Disclosure to Commission	n, FERC, or the	ir respecti	ve Staff		
	Notwithstanding anything pursuant to 18 CFR section the Commission, FERC, or an investigation or otherw Parties that is otherwise r pursuant to this Rule, the to the Commission, FERC provided for in the requess to the Commission, FERC pursuant to PUC section of disclosure to the Commis 388.112 in the case of dis information be treated as Commission, FERC, and be withheld from public di regulatory body with jurise shall be treated in a simila rules and regulations.	on 1b.20 in the optimized in their respective in their respective in the optimized to be merecently shall prove their respect for information constructions and Generation and consistic confidential and their respective sclosure. Required in their respective sclosure conducting the interval and their respective sclosure. Required in their respective sclosure conducting the interval and the inter	case of dis ve staff, di formation aintained vide the re ctive staff, i. In provi ctive staff, al Order 60 Stent with C, requess tent with c, requess t non-publ staff and ests from ng a confin	sclosure to FER uring the course from one of the in confidence quested inform, within the time ding the informa the Party shall 6-C in the case 18 CFR section t that the ic by the that the informa another state dential investiga	e of I ation I ation I of I ation I ation I	
Advice Letter No:		lssued by		Date Filed	DRAFT 2/19/201	 13
Decision No. 29C0	12-09-018 F	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.		

	<b>Pacific Gas and Electric Compan</b> San Francisco, California U 39	<b>y</b> Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She	
	GENERATI	ELECTRIC RULE NO		IONS	Sheet 30
D. GE	ENERAL, RULES, RIGHTS	AND OBLIGATION	IS (Cont'd	.)	(N)
7.	CONFIDENTIALITY (Cor	nt'd.)			
	d. Required Disclosure				
	Subject to the except claims is Confidential Party to any person r except to the extent of order of the Commiss disclosing Party to be dispute between or a dispute; (iii) otherwise consent not to be unr obligations under this service provider or a Confidential Informati CAISO, or to a sub-re or planning group und relevant tariffs. Prior Confidential Informati or Governmental Aut the information descr agrees to assert conf seeking to protect the by confidentiality agre	Information shall not not employed or retain lisclosure is (i) requi- sion or FERC; (ii) rea- erequired to be disco- mong the Parties, or e permitted by conse- easonably withheld; Rule; or (v) as a tra- Control Area operation to a Regional or der the applicable co- to any disclosures or ion under this subpara- hority makes any re- ibed in this subpara- identiality and coope e Confidential Inform	ot be discl ined by the red by lav asonably of osed in co- osed in co- ent of the e- (iv) nece: nor, includi ansmission or, includi ansmission ational re ragraph, of quest or d graph, the erate with ation from	osed by the otl e other Party, v or pursuant to deemed by the onnection with nse of litigation other Party, su ssary to fulfill if n or distributior ng disclosing t n Organization liability organiz ity provisions in r Party's or if any third p emand for any disclosing Pa the other Party n public disclosing	her I o an I a I o or I ich I ts I he I he I n or I zation I n the I oarty I v of I rty I y in I sure I
8.	PRUDENT OPERATION	AND MAINTENAN	CE REQU	IRED	
	A Producer shall operate Interconnection Facilities and shall maintain comp	in accordance with	Prudent E		ices I (N)
					(Continued)
Advice Lett Decision N		Issued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
30C0		Vice President Regulatory Relations		Resolution No.	

\_

PG	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39		Revised Driginal	Cal. P.U.C. Sheet I Cal. P.U.C. Sheet I		
	ELECTRIC GENERATING FACILI	RULE NO. 2 TY INTERCO			Sheet 31	
D.	GENERAL, RULES, RIGHTS AND OBL	IGATIONS	(Cont'd.)	)	(N)	
	9. CURTAILMENT AND DISCONNEC	TION				
	Distribution Provider may limit the or disconnection of a Producer's Gene Provider's Distribution or Transmiss notice, in the event of an Emergeno Conditions. Distribution Provider m disconnect or require the disconnec Facility from Distribution Provider's upon the provision of reasonable w maintenance, repairs or modificatio Distribution or Transmission Syster determination that a Producer's Ge with this Rule; or 3) upon termination Agreement. Upon Producer's writte provide a written explanation of the disconnection.	erating Facil sion System by, or to corr ay also limit ction of a Pro Distribution ritten notice ns to Distrib n; 2) upon D nerating Fac on of the Ge en request, I	ity from I at any ti ect Unsa t the ope oducer's or Trans : 1) to all ution Pre- Distribution cility is no nerator I Distribution	Distribution me, with or with afe Operating ration or Generating smission Syster ow for routine ovider's on Provider's ot in compliance nterconnection on Provider sha	I nout I I n I I E I	
	10. LOCAL FURNISHING BONDS					
	If a proposed Interconnection of a C tax-exempt status of interest on the deductibility of interest expense on Local Furnishing Distribution Provid Treasury Regulations and/or applic Customer will be required to pay th proposed Interconnection of such C Interconnection Study shall specify measures that address the financia Bonds that would result from an Int	Local Furni the Local Fu ler under the able IRS rul e costs prop Generating F and estimat I impacts, if	ishing Bo urnishing e Interna ings, the perly attri acility. te the co any, on	onds or the Bonds to the Revenue Cod Interconnectio butable to the The st of all remedia	                                   	
					•	 <b>Formatted:</b> Normal, Level 3, Indent: Left: 0.6", Space After: 12 pt, Line spacing: Exactly 12 pt, No widow/orphan control, Keep with next, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers, Tab stops: 0.1", Left
					(Continued)	
		ed by		Date Filed	DRAFT 2/19/2013	
Decisi	Vice F	<b>C. Cherry</b> resident		Effective Resolution No.		
34C0	Regulator	y Relations				

	i <b>fic Gas and Electric Company</b> Francisco, California 9	Cancelling	Revised Original	Cal. P.U.C. She Cal. P.U.C. She		31898-E 30210-E
		LECTRIC RULE NO		IONS	Sheet 3	2
D. GENI	ERAL, RULES, RIGHTS A	AND OBLIGATION	IS (Conťď	.)		(N)
11. C	COORDINATION WITH A	FFECTED SYSTE	MS			i
F a c s t t u a a c s s t t	Distribution Provider will mo potentially affected by an A interconnection Requests. conduct of any studies req interconnection Request of Departors and, if possible, applicable Interconnection Rule. Distribution Provide all meetings held with App cooperate with Distribution studies and the determinat ransmission provider whice with Distribution Provider who is a matters related to the nodifications to Affected S agreement with the owner agreement shall specify th Applicable, by the owner of t applicable, by the owner of t	Applicant's Interco Distribution Provi uired to determine in Affected System Study within the t r will include such licant as required Provider in all ma tion of modificatior ch may be an Affect with whom intercor e conduct of studie Systems. Applican of the Affected Sy e terms governing he Affected System	nection F ider will cc the impan is with Afficults (if avai ime frame Affected S by this Ru titters relat is to Affec cted Syste nection h s and the s and the t shall ent stem, as a payments m as well a	Request or gro ordinate the ct of the ected System ilable) in its specified in the system Opera le. Applicant ed to the cond ted Systems. m shall cooperation determination er into an applicable. The to be made l	his tors in will duct of A crate ested of	
12. T	RANSFERABILITY OF IN	ITERCONNECTIO	ON REQU	EST		i
c t	An Applicant may transfer only if such entity acquires he Interconnection Reque change.	the proposed Gei	nerating F	acility identifie	ed in	
	SPECIAL PROVISIONS A	PPLICABLE TO N	ET ENER	GY METERE	D	
1	Notwithstanding any other	provision in this R	ule:			i I
a	<ul> <li>AFor Generating Fa <u>s</u>_ections 2827, 2827, proceed from Initial to S Process <u>or Distribution</u> waiting for Applicant co for payment of study co</li> </ul>	3 and 2827.10 Dis Supplemental Rev <u>Group Study Proc</u> oncurrence, since <i>i</i>	tribution P iew to Inde cess to fur	rovider may ependent Stud ther study witl	rout	
						inued)
Advice Letter I Decision No.	Vo: 4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT	2/19/2013
34C0		Vice President Regulatory Relations		Resolution No.		

F	Pacific Gas and Electric Company San Francisco, California U 39	Revised Cancelling Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	31899-E 30211-E	
	ELECTRI GENERATING FACIL	C RULE NO. 21 ITY INTERCONNECT	Shee	t 33	
	D. GENERAL, RULES, RIGHTS AND OB	BLIGATIONS (Cont'd	l.)	(N) I	
	13. SPECIAL PROVISIONS APPLIC APPLICANTS (Cont'd.)	ABLE TO NET ENE	RGY METERED		
	b. For Generating Facilities qualif 2827 and 2827.8 Distribution F shall normally be processed n following Distribution Provider's Metering Interconnection Requ and required payments; 2) a co Generator Interconnection Agr final electric inspection clearan having jurisdiction over the Ge cannot be met, Distribution Pro Commission of the reason for Interconnection Request and the second sec	Provider approval for ot later than thirty (3 s receipt of 1) a com uest including all sup pompleted signed Net eement; and 3) evid ice from the Governi nerating Facility. If t povider shall notify Ap the inability to proces	Interconnection 0) Business Days pleted Net Energy porting documents t Energy Metering ence of Applicant's mental Authority the 30-day period plicant and the ss the		
	Applicants with PUC sSection 1 non-inverter based Generators Equipment should plan to subr Interconnection Request includ for Distribution Provider to star without waiting for the final insy Generating Facilities are advis Request at least six (6) months Commercial Operation Date. D these Generating Facilities, ad and could include Supplementa a System Impact Study (sixty ( Study (sixty (60) to ninety (90) upgrades to the electric system The advance submission of the accommodate Distribution Prov consistent with the timelines es required to complete the proce based Generators and/or Gene	2827 Generating Fa and/or Generators init a completed Net ding all supporting do t the review process pection clearance. <i>A</i> ed to submit their Init s in advance of their Depending on the siz ditional time for revia al Review (twenty (2 60) Calendar Days), Calendar Days depon n are identified) as s e Interconnection Review and st stablished in this Rul essing for interconne	cilities that include with non-Certified Energy Metering ocuments sufficient in Section F.2.a Applicants with such terconnection planned e and location of ew may be required 0) Business Days), and a Facilities ending on whether et out in Section F. equest will better udies in a manner le that may be ction of non-inverter		
	<u>c.</u> Unless Net Generator Output I Equipment necessary to obtair and 2827.8 shall be installed a required to complete Interconn	n service under PUC nd operational withir	sSections 2827	<b>-</b>	<ul> <li>Formatted: Numbered + Level: 1 +</li> <li>Numbering Style: a, b, c, + Start at: 1 +</li> <li>Alignment: Left + Aligned at: 0.63" + Indent at: 0.88"</li> </ul>
	Advice Letter No: 4110-E Is:	sued by	Date Filed DRA	(N)	
	Vice	<i>K. Cherry</i> President ory Relations	Effective Resolution No.		

	PG&	<b>Pacific Gas and Electric Compa</b> San Francisco, California U 39	ny Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
		GENERAT	ELECTRIC RULE NO.		IONS	Sheet 34	
	D.	GENERAL, RULES, RIGHT SPECIAL PROVISIONS AF				(N)   	
I		more than one year notification that the I Generator Interconn that has not been ap completion of all app withdrawal by Distrik may not deem the Ir Applicant provides re	a Fast Track Interconr Non-Export Generatin from the date of Distri nterconnection Reque ection Agreement, or proved for Parallel Op blicable review and/or pution Provider; howey nterconnection Request easonable evidence the or ii) if the delay is a	g Facility bution Prisest is vali 2) has a peration v studies, ver, Distrist to be v nat the In	t that 1) goes for rovider's written d without a sign Generating Fac within one year is subject to ibution Provider vithdrawn if the i terconnection	ed I Ility I of I I	Formatted: Numbered + Level: 1 + Numbering Style: a, b, c, + Start at: 1 + Alignment: Left + Aligned at: 0.63" + Indent at: 0.88"
		14. COMPLIANCE WITH ES Distribution Provider sha timelines provided for u is not able to meet a pa Provider shall notify App estimated completion da additional time is neede Reasonable Efforts of D procedures set out in So process in Section K.	all use Reasonable Ef nder this Rule. In the rticular timeline set for olicant as soon as pra- ate with an explanatio d. Any Applicant diss Distribution Provider m ection F.1.d and/or the	forts in n event Di th in this cticable a n of the r atisfied v ay use th	stribution Provid Rule, Distributio and provide an easons why vith the ne informal		
	1	<ol> <li>MODIFICATION OF TIN Distribution Provider an any of the timelines in th agreed upon, in writing,</li> </ol>	d Applicant, for good on the modified	d timeline	e shall be mutua	lify l liy l lly l (N)	
		2 <u>.</u>			ana rapnoant.	(14)	
						(Continued)	
	Advice I Decisioi 37C0	Letter No: 4110-E n No. 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.	DRAFT 2/19/2013	

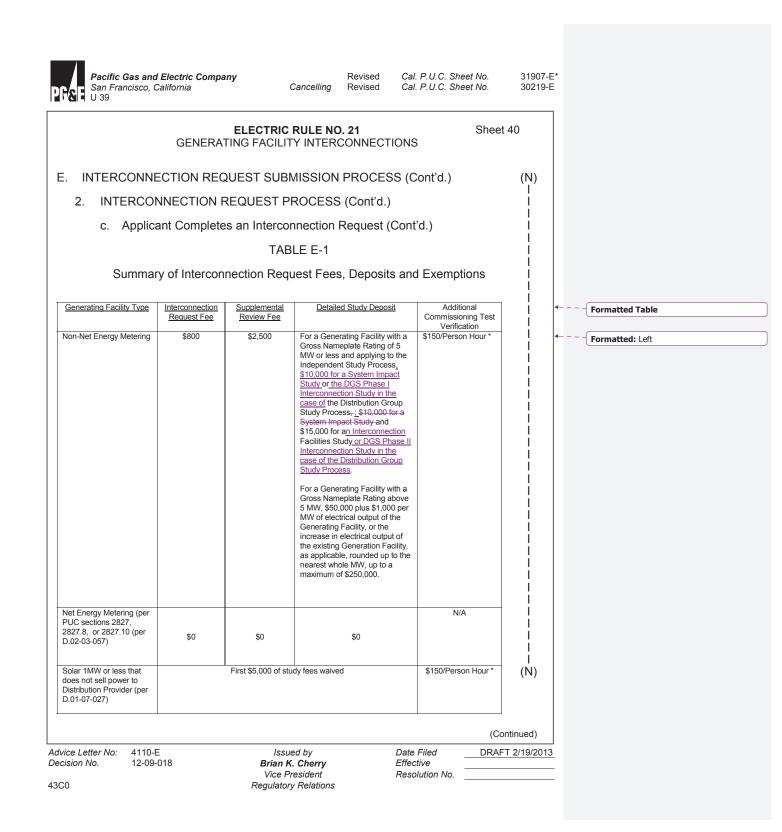
PG&		<b>ic Gas and Electric Compa</b> Francisco, California	ny Cancelling	Revised Revised			31902-E 30214-E
		GENERAT	ELECTRIC RULE N		IONS	Sheet	: 35
E. I	INTER	CONNECTION REQ	UEST SUBMISSION	I PROCES	S		(N)
1	. OF	PTIONAL PRE-APPLI	ICATION REPORT				l
	re pr Da pr sc lat (e of	con receipt of a comp fundable processing f e-application data de ays of receiptThe Pr oposed Point of Inter ourceThe proposed titude and longitude, s .g. pole number), met the above sufficient t terconnection.	fee of \$300, Distribut scribed in this sectio re-Application Repor connection, generati Point of Interconnec site map, street addr ter number, account	tion Provide n within ter t Request on technole tion shall b ess, utility number or	er shall providen (10) Busines shall include a ogy and fuel e defined by equipment nur some combin	e s mber	
		ne Pre-Application Re vailable:	port will include the	following ir	formation if		
	a.	Total Capacity (MW) to serve proposed si	) of substation/area l ite.	bus or banl	k and circuit lik	ely	
	b.	Allocated Capacity ( likely to serve propo	MW) of substation/a sed site.	rea bus or	bank and circu	uit	
	C.	Queued Capacity (N likely to serve propo		ea bus or b	ank and circui	t	
	d.	Available Capacity ( most likely to serve		rea bus or	bank and circu	ıit	
	e.	Substation nominal over the second se	distribution voltage c	or transmiss	sion nominal		
	f.	Nominal distribution	circuit voltage at the	e proposed	site.		
	g.	Approximate circuit of substation.	distance between the	e proposec	I site and the		
	h.	Relevant Line Section when available.	on(s) peak load estin	nate, and n	ninimum load o	data,	
	i.	Number of protective devices between the	e devices and numbe proposed site and t	er of voltag the substat	e regulating ion/area.		
	j.	Whether or not three	e-phase power is ava	ailable at th	ie site.		(N)
						(Co	ontinued)
Advice L Decisior	Letter No n No.	o: 4110-E 12-09-018	lssued by <b>Brian K. Cherry</b>		Date Filed Effective	DRAF	T 2/19/2013
38C0			Vice President Regulatory Relations	5	Resolution No.		

	PF/8		<b>ic Gas and Electric</b> Francisco, California	Company	Cancelling	Revised Original	Cal. P.U.C. She Cal. P.U.C. She		1903-E 0215-E	
			GEI	ELECTR NERATING FACI	I <b>C RULE NO</b> LITY INTER		IONS	Sheet 36		
		1. PF	RE-APPLICATIO	REQUEST SU ON REPORT (C	ont'd.)			(N     	)	
		k. I.	distribution su Based on prop constraints su that location,	uctor rating from bstation. posed Point of I ch as, but not li short circuit inte ues on the circu	nterconnec mited to, ele	tion, existi ectrical de pacity issu	ng or known pendencies a es, power qua	I I t I ality I		
		Ap cc th sc Di	oplication Report onduct a study of at data is not avo ome of a Pre-Ap stribution Provid	on Report need t request does or other analysis vailable If Distri plication Report der will provide nformation that	not obligate of the prop ibution Prov t due to lack Applicant w	e Distribution bosed proje vider cann k of availal vith a Pre-A	on Provider to ect in the ever ot complete a ole data,	nt I Ilor I I		
		the inf the pr ar ou	e existence of " terconnection u ere are many va ocess, 2) the di od 3) data provid utdated and not	re-Application R Available Capac p to this level m ariables studied stribution syster ded in the Pre-A useful at the tim	city" in no w ay be comp as part of t m is dynam opplication F ne of submi	ay implies bleted with he interco ic and sub Report ma ssion of th	that an out impacts si nnection revie ject to change y become e complete	ince   w   e   	-	<b>Formatted:</b> Tab stops: 5.52", Left
I		Se Ap	ection, Distributi	equestNotwitl on Provider sha t data that reprend ng.	all, in good f	faith, provi	de Pre-		))	
	Advice	Letter No	»: 4110-Е		ssued by		Date Filed	(Continue	,	
	Advice Decisio 39C0		12-09-018	<b>Bria</b> Vice	ssued by <b>n K. Cherry</b> e President atory Relations		Effective Resolution No.		5/2013	

		Son E	<b>c Gas and Electric Comp</b> rancisco, California	oany Cancelling	Revised g Revised			31904-E 30216-E
			GENER	ELECTRIC RULE I		TIONS	Sheet 3	7
	E. IN	TER	CONNECTION REC	QUEST SUBMISSIO	N PROCES	SS (Cont'd.)		(N)
	2.	IN	TERCONNECTION	REQUEST PROCES	SS			ļ
		a.	Applicant Initiates	Contact with Distribu	ition Provid	er		ļ
			documents (such a technical informati Supplemental Rev Metering requirem agreed upon, all su Applicant within the from Applicant. Di representative as t allocate responsibility	tribution Provider will as sample agreemen on, listing of Certified iew fee information, i ents) to a potential A uch information shall ree (3) Business Day stribution Provider w he single point of co ilities among its staff an Applicant's Gene	ts, Intercon Equipmen applicable t pplicant. U normally be s following ill establish ntact for Ap to best coo	nection Reque t, Initial and ariff schedules Inless otherwis e sent to an the initial reque an individual plicant, but ma rdinate the	and e est	
		b.	Applicant Selects	a Study Process				ļ
			An Applicant may processes in accord	select one of two inte dance with the follow	rconnectio	n evaluation ty requirement	s:	
			i) Fast Track Eli	gibility				ļ
I			eligible for Fas Nameplate Ra Generating Fa than 3.0 MW o	and Net Energy Me st Track evaluation re ting of the proposed icilities with a Gross on a 12 kV or higher also eligible for Fast	egardless o Generating Nameplate voltage inte	f the Gross g FacilityExpo Rating no large erconnection po	orting er	
			of Distribution cost such that never exceed Facility's net e eligibilityHow required to co	ng Generating Facili Provider-approved p the Exporting Gener the Fast Track eligib export will be conside vever, these Intercor mplete Supplementa ipplemental Review a omitted.	protective de rating Facili ility limits, t red for purp nection Re I Review ar	evices at Applic ty's net export he Generating coses of Fast T quests will be nd <u>Applicants</u> sl	cant's will īrack hould	           (N)
							(Conti	inued)
	Advice Let Decision N		: 4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT	2/19/2013
40C0				Vice President Regulatory Relation	IS	Resolution No.		

PG				and Electric Compa co, California	ny	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		31905-Е* 30217-Е	
				GENERA		C RULE NO		IONS	Sheet	38	
E.	11	NTER	CON	NNECTION REC	QUEST SU	BMISSION	PROCES	SS (Cont'd.)		(N)	
	2.	INT	ER	CONNECTION F	REQUEST	PROCESS	(Cont'd.)				
		b.	Арр	olicant Selects a	Study Pro	cess (Cont	'd.)				
			ii) Detailed Study Eligibility								
			Interconnection Requests that are not eligible for Fast Track evaluation must apply for Detailed StudyAn Applicant may also choose to apply directly for Detailed StudiesDetailed Study shall require (i) an Independent Study Process, (ii) a Distribution Group Study Process, or (iii) a Transmission Cluster Study ProcessThe specific study process used will depend on the results of the Electrical Independence Tests for the Transmission and Distribution Systems.								
			iii)	Request for De	liverability	Assessme	nt				
				Unless specifie Generating Fac Process, Indep Process will be Deliverability St seeking a delive Applicants stud may seek a del applicable prov	ilities eligil endent Stu assumed t atus. Noth erability as ied under t iverability a	ole to be stu idy Process to have sel- ning herein sessment i the Transmassessmen	udied und s or Distrik ected Ene will prohil n accorda ission Clu	er the Fast Tra oution Group S ergy-Only bit an Applicant ince with the W ister Study Pro	tudy : from 'DT.		
		C.	Арр	olicant Complete	s an Interc	connection	Request				
		All Applicants shall submit a complete and valid Interconnection Request. When applicable per Table E.1, a nonrefundable \$800 Interconnection Request fee, and for Applicants that elect Detailed Study in the Interconnection Request, a study deposit shall be required per instructions in the Interconnection Request. Applicants who proceed to Detailed Study after Fast Track will provide a Detailed Study deposit as specified in Section E.3.a.									
	Applicant shall submit a separate Interconnection Request for each Point of Interconnection. An Interconnection Request for the expansion of capacity of an existing operating Generating Facility shall be treated the same as an Interconnection Request for a new Generating Facility pursuant to this Rule.									     (N)	
Advic		tter No:	11	I10-E	10	sued by		Date Filed		tinued) 2/19/2013	
Decisi 41C0				2-09-018	<b>Briar</b> Vice	<b><i>K. Cherry</i></b> President tory Relations		Effective Resolution No.	01011		

	: Gas and Electric Company ancisco, California	Cancelling	Revised Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
		ECTRIC RULE NO			Sheet 39	
2. INT c.	CONNECTION REQUES ERCONNECTION REQ Applicant Completes ar <u>i) Interconnection F</u> <u>Process will be a</u> <u>the Distribution Grou</u> <u>ii) Interconnection F</u> <u>Distribution Grou</u> <u>Independent Stu</u> <u>passed screen G</u> <u>Applicant elects i</u> <u>Group Study, or</u> <u>during a Distribut</u> <u>passes Screen G</u> <u>There will normally be tw</u> <u>windows annually. The</u> <u>windows annually. The</u> <u>windows annually to per</u> <u>second Distribution Grou</u> <u>open on September 1 a</u> <u>that any date set in this</u> <u>applicable date shall be</u> <u>The Distribution Provide</u> <u>Application window inter</u> <u>changes will be posted of</u>	ST SUBMISSION UEST PROCESS Interconnection Requests for the I ccepted througho Group Study wind Requests to be st p Study Process dy Process Interce and failed Scree to continue to the (b) an Interconne to Continue to the the next Busines on the Distribution on the Distribution	PROCES (Cont'd.) Request ( ndepende out the ye ows desc udied unc shall eithe connection in R for w next avai ction Reg Application close on tion windo sources I s Day the Distribut or closing Provider	SS (Cont'd.) Cont'd.) ent Study ar, except during ribed below. er the er be (a) an i Request that hich the lable Distribution uest submitted on window that tudy Application dy Application March 31. The w will usually In the event Day, then the reafter. on Group Study dates. Any 's website. If tudy Application		Formatted: Space Before: 0 pt, After: 12 pt, Numbered + Level: 1 + Numbering Style: i, ii, iii, + Start at: 1 + Alignment: Left + Aligned at: 1.15" + Indent at: 1.4", No widow/orphan control, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers
	window interval and ope Distribution Provider's w paragraph above, the da website shall apply.	ebsite and the da	ites identi	fied in the	(Continued)	
Advice Letter No: Decision No. 42C0	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No	DRAFT 2/19/2013	



Pacific O San Fran U 39	Gas and Electric Company Incisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		07-E* 19-E
		ECTRIC RULE NO FACILITY INTER		IONS	Sheet 40	
*Plus a	idditional costs for travel, lodging an	d meals.				
					(Continued)	
vice Letter No: cision No.	4110-Е 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2	2013
C0		Vice President Regulatory Relations		Resolution No.		

		on Ero	Gas and Electric Corr ncisco, California	pany	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		<u>31908</u> -E <u>30220</u> -E
			GENER	ELECTR ATING FACI	ic Rule NC		IONS	Sheet 4	1
	E. IN	TERC	CONNECTION RE	EQUEST SU	IBMISSION	PROCES	SS (Cont'd.)		(N)
	2.	INTE	ERCONNECTION	REQUEST	PROCESS	G (Cont'd.)			
		d.	Site Exclusivity						
			Documentation of nterconnection R Applicants with N	equest. This	s réquireme	ent does n	ot apply to		
	3.	INTE	ERCONNECTION	REQUEST	FEE AND	STUDY D	EPOSIT		
		Req Con Fac Dec Met any Stud the	Interconnection I juests pursuant to mission Decision ilities that do not ision 01-07-027. ering under <u>PUC</u> costs associated dy fees for solar 0 Distribution Syste o the amount of \$	PUC Section 02-03-057 sell power to Generating Sections 28 with Interco Generating F em that do not sent that do not	ons 2827, 2 and for sola Distribution Facilities el 27, 2827.8, nnection St acilities up	827.8, or ar-powered n Provider igible for N or 2827.1 udiesInt to 1 MW in	2827.10, per d Generating per Commissi Net Energy 0 are exempt erconnection nterconnecting	from to	
		a.	Detailed Study De	eposit					
			i) Detailed Stud	dy Deposit					
			To proceed w dDetailed sSt			licant mus	st submit a		
			MW or less, <i>I</i> \$10,000 for th <u>Phase I Inter</u> Facilities Stud <u>case of the D</u>	Applicant mu ne Interconn connection S dy <u>or DGS P</u> istribution G 5,000 depos	Ist submit a ection Syste Study, and v hase II Inte roup Study it must be s	Detailed s em Impact where an I rconnection Process is	ate Rating of 5 Study deposit of t Stud <u>y or the I</u> nterconnection on <u>Study in the</u> s required, an as required in	of <u>DGS</u> I	
ļ			MW, Applicar \$50,000 plus Generating F	nt must subn \$1,000 per l acility, or the erating Facili	nit a Detaile MW of elect e increase in ty, as applic	ed Study d trical outpu n electrica cable, rour	I output of the nded up to the	ve 5	         (N)
								(Conti	inued)
	Advice Lette Decision No		4110-E 12-09-018	Bria	ssued by n K. Cherry		Date Filed Effective	DRAFT	2/19/2013
1	45C0 <u>44C0</u>				e President tory Relations		Resolution No.		

	PG			Gas and Electric Cancisco, California	ompany	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31909-E 30221-E
				GEN	ELECTR ERATING FAC	RIC RULE NO		IONS	Sheet 42	2
	E.	IN <sup>-</sup> 3.		CONNECTION I				. ,	'n)	(N)   
		•		Detailed Study						İ
ii) Use of Detailed Study Deposit										İ
				costs incurr at the direct perform and amounts tha Provider sh Days follow	ed by Distribu tion of Distribu d administer th at exceed the all be refunde	Ition Provide Ition Provident Interconr prudent cost of to Application of the fir	er, the CAI er or CAIS nection Stu sts incurred ant within s	pay for pruder SO, or third pa O, as applicat idies. Deposit d by Distributio ixty (60) Caler pplicable to th	arties ble, to 5 5n ndar	
					cated equally			on Study Grou action Reques		
I				The Detaile	d Study depos	sits shall be	refundabl	e as follows:		Ì
				or be do notice L Days for shall re sStudy CAISO includin Provide interest month ( Federal	eemed withdra inder Section illowing the so fund to Applic deposit that e , and third par ig interest from er to the date o shall be one- Commercial P I Reserve Stat	awn by Dist F.6 on or b coping meet ant any por exceeds the ties have in n the date c of payment twelfth of th aper Rate -	ribution Pro efore thirty ing, Distrib tion of App costs Distri curred on <i>J</i> f receipt b to Applicar e Federal - Non-Fina	drawn by App ovider by writt (30) Calenda ution Provider licant's <u>4D</u> eta ibution Provid Applicant's be y Distribution nt. The applica Reserve three ncial, from the expressed as	en r iled ler, half, able	
l				annual						(N)
									(Contir	nued)
	Advic Decis		er No:	4110-E 12-09-018		ssued by		Date Filed	DRAFT 2	
	45C0			12-03-010	Vic	an K. Cherry e President atory Relations		Resolution No.		

PGa		O	<b>c Gas and</b> rancisco, C	<b>Electric Co</b> California	mpany	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31910-E 30222-E
				GENE		TRIC RULE N CILITY INTER		TIONS	Sheet	: 43
E.	IN	ITER	CONNE	ECTION R	EQUEST	SUBMISSIO	N PROCE	SS (Cont'd.)		(N)
	3.	INT	ERCO	NNECTIO	N REQUE	ST FEE AND	STUDY [	DEPOSIT (Con	ťd.)	
		a.	Detaile	ed Study E	Deposit (Co	ont'd.)				i
			<u>ii) Us</u>	se of Deta	iled Study	Deposit (Cor	<u>nťd.)</u>			i
				Detailed deemed under Se the scop Days fol System Distribut between greater of parties h original \$100,00 Distribut The app Reserve Financia (express	Study Pro withdrawn ection F.6 i bing meetin lowing the Impact Stu ion Provide (i) Application of the costs have incurred Detailed st 0, including ion Provide licable intee three-mor al, from the sed as an a	cess be with a by Distributi more than th results meet do <u>or DGS F</u> er shall refun ant's <u>dD</u> etaile s <u>Distribution</u> ed on Applica <u>sS</u> tudy depos g interest froi er to the date rest shall be onth Commerce	drawn by a on Provide inty 930) C before thir ing for the 'hase I Inte d to Applic d to Applic d s <u>S</u> tudy o Provider, ant's beha sit up to a m the date e of payme one-twelff sial Paper ierve Statis	e of receipt by ent to Applicant. th of the Federa Rate – Non- stical Release I	tice after n t <u>tudy</u> , nce the ird the	
				Applicar by writte thirty (30 Intercon	nt or be dee n notice ur ) Calenda nection Sy nection Stu	emed withdra nder Section r Days after f stem Impact	awn by Dis F.6 at any the results Study <u>or [</u>	tribution Provic time more that meeting for the	n e II be	I I I (N)
Advice Decisi			4110-E 12-09-			lssued by Brian K. Cherry		Date Filed Effective	,	T 2/19/2013
46C0		0.	12-03-	010		Vice President gulatory Relations	5	Resolution No.		

	Gas and Electric Cor ncisco, California	npany Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee	
	GENE	ELECTRIC RULE N RATING FACILITY INTER		IONS	Sheet 44
	ERCONNECTIC Detailed Study I ii) Use of Deta (4) Upon e: an Appl shall ref sStudy CAISO, includin Provide interest month 0	REQUEST SUBMISSIC DN REQUEST FEE AND Deposit (Cont'd.) ailed Study Deposit (Continue of a Generator icant and Distribution P fund to Applicant any po deposit that exceeds th and third parties have g interest from the date r to the date of paymen shall be one-twelfth of Commercial Paper Rate Reserve Statistical Rel	D STUDY [ nt'd.) Interconne rovider, Di prtion of Ap e costs Dis incurred or of receipt t to Applica the Federa e – Non-Fin	DEPOSIT (Cont ection Agreeme stribution Provio pplicant's dDeta stribution Provid Applicant's be by Distribution ant. The applica Il Reserve three ancial, from the	I I I I I I I I I I I I I I I I I I I
	deemed to obligated to <u>dD</u> etailed s irrevocably that Interco Provider wi for all work Request at all monies o Study data deposit not incurred or interconneo Commissio a Detailed s proceeds s	Vithdrawal ding the foregoing, an have withdrawn its Inte pay to Distribution Pro Study deposit that have have been committed to nnection Request prior Il reimburse the CAISO performed on behalf of Distribution Provider's due before it is allowed or results. Any proceed otherwise reimbursed to irrevocably committed to tion studies shall be ap n. Where an Applicant Study deposit cannot be hall escheat to the State we commencing with the	reconnection vider all co be been prud o be incurr to withdrav or third pa the withdrav direction. A to obtain a ds of the D to Applican oplied as di with remai be located, se pursuant	n Request shall osts in excess or dently incurred or red with respect wal. Distribution rities, as applicat awn Interconnect explicant must ny Interconnect etailed Study t or applied to or red for the rected by the ning proceeds f such remaining to the Unclaime	be       I         f the       I         f the       I         to       I         able,       I         ction       I         pay       I         cion       I         costs       I         irom       I         ed       I         I       I         ed       I         I       I
Advice Letter No:	4110-E	Issued by		Date Filed	(Continued) DRAFT 2/19/2013
Decision No. 47C0	12-09-018	<b>Brian K. Cherry</b> Vice President Regulatory Relations	5	Effective Resolution No.	

PG&			<b>c Gas and Electric Cor</b> rancisco, California	npany Cance		evised Driginal	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		31912-E 30224-E
			GENEF	ELECTRIC RUL RATING FACILITY IN			IONS	Sheet	45
E.	IN	TER	CONNECTION R	EQUEST SUBMISS	ION PI	ROCES	SS (Cont'd.)		(N)
	3.	INT	ERCONNECTION	N REQUEST FEE A	ND ST	UDY D	EPOSIT (Cont'o	d.)	
		a.	Detailed Study D	eposit (Cont'd.)					ļ
			iv) Special Circ	umstances					
			reduced cost such as Inter	y propose, and Dist s for reviewing atyp connection Reques facilities, multiple sit	ical Inte s subn	erconne nitted fo	ection Řequests or multiple	8,	
	4.	INT	ERCONNECTION	N COST RESPONS	IBILITY	/			ļ
		res rec inte Sys Sup Tra Me exe	ponsible for all fee uired to complete erconnects to Dist stem is responsibl oport the safe and unsmission System tering under Califi	oducer where those es and/or costs, incl the interconnection ribution Provider's E e for all costs assoc reliable operation o n. Generating Facil ornia PUC sSection ets associated with E	uding ( proces vistribut iated w f the D ties elig s 2827	Commiss. A F tion or vith Par istribut gible fo , 2827.3	ssioning Testing Producer that Transmission allel Operation ion and r Net Energy 8 or 2827.10 are	to	
		a.	Costs of Intercon	nection and Paralle	Opera	ation			ļ
			the need for Inter Facilities, Upgrad Network Upgrade side of the PCC r Producer or Distr on Distribution Pr	ion and Parallel Ope connection Facilities les, Delivery Networ es. Interconnection nay be owned, oper ibution Provider. In ovider's side of the ill be owned, operate der.	s, Spec k Upgr Facilitie ated ar erconn PCC ar	ial Fac ades, a s instand mair nection nd Dist	ilities or Added and/or Reliability Iled on Produce ntained by Facilities install ribution System	/ er's	           (N)
Advice	Lett	er No:	4110-E	Issued by			Date Filed	`	ntinued) T 2/19/2013
Decisio 48C0	on No	D.	12-09-018	<b>Brian K. Che</b> Vice Preside Regulatory Rela	nt		Effective Resolution No.		

	c Gas and Electric Co rancisco, California	ompany	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31913-E* 30225-E	
	GENE	ELECTR ERATING FACII	LITY INTER		IONS	Sheet 4	6	
E. INTER		REQUEST SU	JBMISSION	PROCES	SS (Cont'd.)		(N)	
4. IN1	FERCONNECTIC	ON COST RES	SPONSIBIL	ITY (Cont	'd.)			
b.	Methodology an	d Timing of C	ost Identific	cation				
	Any costs trigge Interconnection System and/or 1 earlier-queued ii interdependence Earlier-queued i requests under a	requirements, Fransmission S nterconnection e with any ear interconnection	, Producer's System follo n requests, lier-queued n requests	s impact o owing allo and Prode I interconr	n the Distributi cation of capa ucer's electrica ection request	ion city to al		
С.	Timing of Cost I	dentification						
	For Applicants to Distribution Grous study process, of Interconnection identification of accommodating interconnection and/or substatio queued intercon interdependent queued intercon or Transmission Distribution System	up Study Proc or after the stu Agreement is costs is to faci incomplete in requests to the on, incomplete innection reque with respect to inection reque System, and	cess, costs idy process executed. ilitate Applic the same Lin interconne ests with wh o short circu- ests for Inter delay or ca	may be id is comple The purpo cant's Inter ion studies e Section studion studi ich Applic uit duty, wi rconnection	entified during the and a Gene ose of later rconnection w s for earlier-qu distribution ci ies for earlier- ant is electrica thdrawal of ea n to the Distrik	erator hile eued rcuit, ally urlier-		
d.	Producer Costs	During Paralle	el Operatio	n				
	All Producers an Facilities, for the Agreement, that operating standa including any up responsibility for characteristics a Distribution Prov System from tim	e duration of the t meet Distribut ards for Paralle odates to those r costs associa at the Point of vider's upgrad	he Generato ution Provid lel Operatio e standards ated with ch Interconneo	or Intercor er's techn n as set o S. This inc nanges to ction nece	nection ical design and ut in Section H ludes Produce the operating ssitated by	d I, er	i                   	<b>- F</b>
Advice Letter No:	: 4110-E		ssued by		Date Filed		inued) 2/19/2013	
Decision No.	12-09-018		n K. Cherry e President		Effective Resolution No.			
49C0		Regula	atory Relations					

	Son Er		<b>and Ele</b> :o, Califo	<b>ctric Co</b> ornia	mpany	,	Can	celling	Revis Origin			U.C. She U.C. She		31914-E 30226-E			
				GENE			ric ru Cility i			ECTIO	NS		Shee	t 47			
E. IN 4.							UBMIS				-	ıt'd.)		(N)     			
	e.	Cos	t Alloc	ation										i			
		by a Inde Inte Stud Reco ider Inte on e upg Sun Tab aris NEI and for I and	an Inte epende rconne dy Pro juest(s itified rconne each Ir rade. nmary le E.2 e in th M App fees 1 NEM A non-N	rconne ent Stue ection <u>cess</u> . <u>). The</u> throug ection <u>htercon</u> Table summ licants that m Applica NEM G	ection udy Pl Requ the re e cost h a D Requ nnect s ants u Senera	Requires Requires rocess est, or spons is of Di istribuite ests in ion Results of the intervence of th	v or Cc est unc are the <u>ibility o</u> <u>stributi</u> <u>ion Gr</u> <u>a Dist</u> <u>quest's</u> respor erconr summ ne cour arious n the s o Syste	der the e respo <u>case of</u> <u>f the tri ion Up oup St ribution accontri section arizes seque ame F</u>	<ul> <li>Fast onsibility</li> <li>fageri</li> <li>iggeri</li> <li>grade</li> <li>udy si</li> <li>n Stuce</li> <li>bution</li> </ul>	Track lity of Distrib ng Inte s or N hall be dy Groo h to the osts an ess for espor ercon of inte	PPro the tri ercon etwore assi- up pr e nee	cess o iggerin <u>Group</u> <u>nection</u> <u>k Upg</u> gned to o rata d for th es that 1 and r ty for c on proc pon proc ecting	may on- osts ess NEM			ed: Not Highlight ed: Not Highlight ed: Not Highlight ed: Not Highlight	
			Table	e E.2 S	umma	ary of P	roduce	r Cost I	Respor	nsibility	4						
<u>General</u> <u>Facilit</u> <u>Type</u>	ty I		nection st Fee	Supple Review		Detailed Study ( (Indepe Study Process Distribu Group S Process	Cost ndent 5. tion Study	Intercon Facilitie		Distrit Upgr Cc	ades	Transm Network Upgrade (CAISO Section of Appe	<u>Cost</u> Tariff 12.3.2		• Formatt Formatt	ed: Left	
						Transm Cluster Process	Study 3)										
		ΈS	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO				
Non-NE		Х	Y	Х	V	Х		X		Х	~	Х					
NEM	/1		Х		Х		Х	Х			Х		X	I (N)			
													(Co	ontinued)			
Advice Let Decision N 50C0			10-E -09-018			V	Issued b <b>ian K. Cl</b> lice Presid latory Re	herry dent		E	ate File ffective esolutio		DRAF	FT 2/19/2013	I - -		

PG&E	<b>acific Gas an</b> an Francisco, 39	d Electri Californi	ic Compa a	any		Cancelli		evised evised		U.C. She U.C. She		31915-I 30227-I		
		GI	ENERA			<b>RULE</b> TY INT		1 NNECT	IONS		She	et 48		
<u>3</u> 4.	TERCONN INTERCO f. Summ	NNEC		COST	RESP					nťd.)		(N)       		
Table E	E.3 Summar	y of Pr	oducer	Cost R	espon	sibility f	for Mul	tiple Ta	riff Inte	rconnec	tions		<b>-</b>	Formatted Table
<u>Existing</u> <u>Generatin</u> Facility			est Fee	Supple Review		Deta Study		Intercon Facilitie		<u>Distrib</u> Upgra Co:	des			
NEM	Non-NEM	YES X	NO	YES X	NO	YES X	NO	YES X	NO	YES X <sup>a</sup>	NO	Ì		
NEM Non-NEM	NEM		X X <sup>b</sup>		X X <sup>b</sup>		X X <sup>b</sup>	X			X X <sup>a,b</sup>	i		
	eous NEM and on-NEM	Х		х		х		х		X <sup>a</sup>		l		Formatted: Space After: 0 pt
b) Char non-	ation will be bass erator(s) modifie ole Generators for nge of operation NEM Interconne	d by techr or the cost	nology-spe ts that can NEM eligib	ecific capa not be cle	acity/avail arly assi ator at an sociated	lability fac gned to ei ny time to costs bein	tors of al ither type export is	I NEM eligi of tariff. treated as	a simultar ucer.	s non-NEM	/ and	(N)	<b>←</b>	Formatted: Normal, Indent: Left: 0.85", Space After: 12 pt, Line spacing: Exactly 12 pt, No widow/orphan control, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers
Advice Lette Decision No						ued by <b>K. Cherr</b>	у		Date Fi Effectiv		DR/	AFT 2/19/2013	3 	
51C0				R		President ry Relation			Resolut	ion No.			-	

PG/8		0.0.00	C.e.	as and Electric Compa cisco, California	ny Cancell		vised iginal	Cal. P.U.C. Shee Cal. P.U.C. Shee		
				GENERAT	ELECTRIC RULE			IONS	Sh	eet 49
E.	INT	ĒF	RCC	NNECTION REQU	JEST SUBMISSIO	ON PRO	DCES	S (Cont'd.)		(N)
		QU An or Inte con Inte an	EUI y A Tra erco nsic erco d de	CONNECTION RE E POSITION pplicant for Intercon nsmission System onnection Request. lered complete and onnection Request eemed valid by Dis knowledgement of	nnection to Distrik must submit a co An Interconnect I valid when all ite have been receiv tribution Provider.	oution P nplete ion Rec ms req ed by D	Provide and va quest v uired f Distribu	er's Distribution alid vill be for an		
			Int the	stribution Provider s erconnection Custo Interconnection R erconnection Requ	omer within ten (1 equest, which not	0) Busii ice sha	ness E II state	ays of receipt whether the	of	
		b.	De	ficiencies in Interco	onnection Reques	t				
			i) ii)	Distribution Prov reasons for such does not constitu Applicant shall pr requested inform request within ter written notificatio Second Notificati Distribution Prov to Applicant withi additional reques	tion Request fails ider shall state in failure and that the rovide Distribution ation needed to con (10) Business D n that the Intercon	its first he Inter Provid onstitut ays fro nnection a secon ss Day tating v	writter conne ler the te a cc m the n Requ nd writ s of re whethe	additional additional mplete and va date of the firs uest is invalid. ten notification ceipt of the er the	lid t	                             
Advice Decisio 52C0			lo:	4110-Е 12-09-018	Issued by <b>Brian K. Cher</b> Vice Presiden Regulatory Relat	ť		Date Filed Effective Resolution No.		(Continued) RAFT 2/19/2013

	Gas and Electric Company ncisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO FACILITY INTER		IONS	Sheet 50
5. INTI QUE b. [	<ul> <li>CONNECTION REQUES</li> <li>ERCONNECTION REQUE</li> <li>EUE POSITION (Cont'd.)</li> <li>Deficiencies in Interconnection</li> <li>Applicant shall proving requested information requested information request within five (second written notification)</li> <li>Extension Request</li> <li>Upon request, Applition, Applicant does not request within the tiperovider will deem the Applicant may subman Applicants with invalition request, Applicants with invalition request, Applicants, applicant may subman Applicants with invalition request, Applicants, applicant, applicant, applicant, applicant, applicant, applicant, applition, applicant, applicant, applition, applitin, applition, applition, applitin, applition, applition, applit</li></ul>	T SUBMISSION JEST VALIDATIO ection Request ( of Deficiency de Distribution F on needed to cor 5) Business Day cation that the Ir licant can receive subject of the ficient me frames set of the Interconnection it a new Intercor id Interconnection lief under the dis fying Distribution ceipt of the first of	PROCES DN AND A Cont'd.) Provider the notitute a constitu	S (Cont'd.) SSIGNMENT complete and of date of the date of the tion Request nsion of up to cies in the Interconnect Distribution t withdrawn. equest. ts under this lution provisio within two (2) written notifica	valid
					(N) (Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
53C0		Vice President Regulatory Relations		Resolution No.	

	PG	8 E	<b>Pacific Gas and Electr</b> San Francisco, Californi U 39		Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		31918-Е 30230-Е
			G	ELECT ENERATING FAC	RIC RULE NO		IONS	Sheet 51	
	E.	IN	TERCONNECTIO	N REQUEST S	UBMISSION	PROCES	S (Cont'd.)		(N)
		5.	INTERCONNEC QUEUE POSITIC		T VALIDATIC	N AND A	SSIGNMENT C	)F	
			c. Assignment o	f Queue Positio	n				i
I			Energy Meter Interconnectio Distribution P were deficient will be based Interconnectio Provider not r <u>E.5.b.iE.5.b.i</u> ) Applicant rega position shall Provider was however, that any additional following such	rovider shall ass ing Applicants. on Request, the rovider received cies in the Interd on Request to be neet any deadlin or second writt- arding the Interd be set on the fir obligated to pro Applicant meet I information reconserved on Provider deter	If there were queue position the Intercon connection Re- tribution Prove e complete a ne for providing en notification connection Re- nal day of the vide such wri- s deadlines a quired for a va- tion under Se	no deficie on will be nection Re equest, the ider deter nd valid. So ng the firs of (Section equest, Ap period in tten notifiti s set out a alid Interco ection E.5.	encies in the based on the d equest. If there e queue position mines an Should Distribut t (Section E.5.b.ii) to oplicant's queue which Distribut cation, provided above to submi- ponnection Requ b.i or E.5.b.ii, a	e in ion d, t test ind	
			Energy Meter a Point of Inte System. <u>For</u> <u>Distribution G</u> <u>Interconnectio</u> <u>established o</u> <u>that Distributi</u> studied under	rovider shall ma ring Interconnection provided and the state of the provided and the state of the rown Requests in the n the last day of on Study Group rown Study Group rown and the state of the ransmission of the state of the rown and the state of the state of the rown and the state of the state of the state of the rown and the state of the state of the state of the state of the rown and the state of the	tion Request Distribution I Requests the cess, the effe a Distribution f the Distribut f. For Interco	s governe Provider's at are study ctive que Study Group ion Group nnection F udy Proce	d by this Rule v Distribution died under the ue position for oup will be Study window Requests that a ess, the queue	<u>all</u> for ire	
	Advid	e Le	tter No: 4110-E		Issued by		Date Filed	(Contin DRAFT 2	,
	Decis		<i>lo.</i> 12-09-018	V	rian K. Cherry /ice President		Effective Resolution No.		
	54C0	1		Regi	ulatory Relations				

PG&E	0	Gas and Elec acisco, Califor	<b>tric Company</b> mia	Cancelling	Revised Original		
		(	ELEC <sup>-</sup> GENERATING FA	TRIC RULE NO CILITY INTER			Sheet 52
E.	5. IN OF	RCONNEC TERCONN F QUEUE Publicatio Distribu website Reques on Dist assigne Provide intercol System followin governo (i1) (i2) (ii3) (iv4) (v5) (vii6) (vii7) (vii8)	CTION REQUES NECTION REQU POSITION (Con on of the Intercor ation Provider she the interconnect sts governed by f ribution Provider a queue positi er from publishing nection request a queue positi er form published information for ed by this Rule, s rconnection Req The assigned n the queue posit the date the Inte Distribution Pro the date the Inte to be complete the review proce	T SUBMISSIO IEST VALIDA t'd.) annection Quer all publish an- ction queue fo this Rule with s Rule with s to Distribution g this queue of this queue of this queue fo this Rule with 's Distribution g this queue of	ON PROC TION AND ue d update r r all Interc a Point of on System th here prohi combined v on Provide ion queue onnection F ergy Divisi eue Positic ; Request w Request w Applicant of udy Proces ution Grou idy Proces	ESS (Cont'd.) D ASSIGNMENT nonthly on its onnection i Interconnection hat have been bits Distribution with other er's Distribution may include the Request on approval: on Data vas received by vas determined originally applied as, Transmission up Study is);	
Advice Le Decision I 55C0		4110-E 12-09-018		Issued by Irian K. Cherry Vice President gulatory Relations		Date Filed Effective Resolution No.	(Continued) DRAFT 2/19/2013

ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS       Sheet 53         E. INTERCONNECTION REQUEST SUBMISSION PROCESS (Cont'd.)       (N)         5. INTERCONNECTION REQUEST VALIDATION AND ASSIGNMENT OF UNDERCONNECTION REQUEST VALIDATION AND ASSIGNMENT OF (1)       (N)         6. INTERCONNECTION REQUEST VALIDATION AND ASSIGNMENT OF UNDERCONNECTION REQUEST VALIDATION AND ASSIGNMENT OF (1)       (N)         6. Publication of the Interconnection Queue (Cont'd.)       (1)         (1)       Applicant Generating Facility/Storage System and Point of Interconnection Data       (1)         (1)       (1)       (2) the type of generating or storage facility to be constructed; (3) the fuel source; (4)       (1)         (1)       (1)       (1)       (1)       (1)         (2)       the type of generating or storage facility to be constructed; (4)       (1)         (2)       (1)       (1)       (1)         (4)       (1)       (1)       (1)         (2)       (1)       (1)       (1)         (4)       (1)       (1)       (1)         (2)       (1)       (1)       (1)         (4)       (1)       (1)       (1)         (4)       (1)       (1)       (1)         (4)       (1)       (1)       (1)         (4) <th></th> <th>PG&amp;</th> <th></th> <th>ic Gas and Electric Compan rancisco, California</th> <th><b>y</b> Cancelling</th> <th>Revised Revised</th> <th>Cal. P.U.C. Shee Cal. P.U.C. Shee</th> <th></th> <th>1920-Е* )232-Е</th> <th></th>		PG&		ic Gas and Electric Compan rancisco, California	<b>y</b> Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		1920-Е* )232-Е	
				GENERAT			IONS	Sheet 53		
ii) Applicant Generating Facility/Storage System and Point of Interconnection Data         (i1x) the maximum summer and winter MW electrical output;         (i2x) the type of generating or storage facility to be constructed;         (i2x) the type of generating or storage facility to be constructed;         (i2x) the type of generating or storage facility to be constructed;         (i2x) the type of generating or storage facility to be constructed;         (i2x) the type of generating or storage facility to be constructed;         (i2x) the trapposed Point of Interconnection location by substation/area and, if applicable, circuit;         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS         1. OVERVIEW OF THE INTERCONNECTION REVIEW PROCESS         a. Valid Interconnection Request         After an Interconnection Request is deemed complete and valid, Distribution Provider will perform fast Track evaluation unless an Applicant applies for Deats Track evaluation are set forth in Section F2.0 See Section D.13 for special provisions related to the timeframe and costs applicable to NEM Applicants.         (N)         Advice Letter No:       4110-E         Issued by       Date Filed         Breaking No:       Interconnection Request         Advice Letter No:       110-E         Very President       Resolution No.			5. IN QU	TERCONNECTION RI JEUE POSITION (Cor	EQUEST VALIDATIC nťd.)	)n and a	ASSIGNMENT	Ì	N)     	
substation/area and, if applicable, circuit.;       1.26"         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS       1.         1. OVERVIEW OF THE INTERCONNECTION REVIEW PROCESS       1.         a. Valid Interconnection Request       1.         After an Interconnection Request       1.         Applicant applies for Detailed Study or is not eligible for Fast Track evaluation unless an I Applicant applies for Detailed Study or is not eligible for Fast Track evaluation are evaluation. The eligibility requirements for Fast Track evaluation are set forth in Section E.2.D. See Section D.13 for special provisions related to the timeframe and costs applicable to NEM Applicants. (N)         Advice Letter No:       4110-E         Itsued by       Date Filed         Brain K. Cherry       Date Filed         Vice President       Resolution No.				<ul> <li>ii) Applicant General Interconnection</li> <li>(i<u>1</u>*) the maximut</li> <li>(×<u>2</u>) the type of</li> <li>(×i<u>3</u>) the fuel sout</li> <li>(×ii<u>4</u>) the propose</li> </ul>	rating Facility/Storage Data Im summer and winte generating or storage Irce; ed Point of Interconne	e System er MW ele e facility to ection loc	and Point of ectrical output; o be constructe ation by county			
1. OVERVIEW OF THE INTERCONNECTION REVIEW PROCESS       Image: State of the interconnection Request         a. Valid Interconnection Request       Image: State of the interconnection Request is deemed complete and valid, in Distribution Provider will perform Fast Track evaluation unless an in Applicant applies for Detailed Study or is not eligible for Fast Track evaluation are evaluation. The eligibility requirements for Fast Track evaluation are evaluation. The eligibility requirements for Fast Track evaluation are evaluation to the timeframe and costs applicable to NEM Applicants. (N)         Advice Letter No:       4110-E       Issued by       Date Filed       DRAFT 2/19/2013         Advice Letter No:       12-09-018       Issued by       Date Filed       DRAFT 2/19/2013         Vice President       Resolution No.       Effective       Resolution No.		F	REVIE	substation/a	area and, if applicable	e, circuit <u>.</u> ;	;			
Advice Letter No:       4110-E       Issued by       Date Filed       Continued         Advice Letter No:       110-E       Issued by       Date Filed       Effective         Decision No.       12-09-018       Brian K. Cherry       Effective       Date Filed			. OV	ERVIEW OF THE INT	FERCONNECTION F					
Advice Letter No:     4110-E     Issued by     Date Filed     DRAFT 2/19/2013       Decision No.     12-09-018     Brian K. Cherry     Effective       Vice President     Resolution No.	I			Distribution Provider Applicant applies for evaluation. The eligi set forth in Section E	will perform Fast Tra Detailed Study or is r bility requirements fo .2.b. See Section D.	ck evalua not eligibl r Fast Tra 13 for spe	ation unless an e for Fast Trac ack evaluation a ecial provisions	are I	               	
		Decisio			Brian K. Cherry Vice President		Effective			

F		<b>Pacific Gas and Electric Con</b> San Francisco, California J 39	npany Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
		GENEF	ELECTRIC RULE N RATING FACILITY INTER		IONS	Sheet 54
	F. RE	EVIEW PROCESS FO	R INTERCONNECTIO	N REQUES	STS (Cont'd.)	(Ņ)
	1.	OVERVIEW OF THE (Cont'd.)	INTERCONNECTION	REVIEW	PROCESS	
		b. Fast Track Review	N			
		those Generating Regardless of stu designed to meet	ation allows for rapid re Facilities that do not re idy process, all Genera the applicable require ting Facility Design and	equire Deta ating Facilit ments of S	ailed Study. les shall be ection H which	   
		Supplemental Re determined base M in Section G.1.	v consists of an Initial F view. The need for Su d on the results of Initia Applicants that succe h M will be allowed to view.	pplementa al Review S ssfully pas	Review will be creens A throug s Initial Review	gh l
		Applicant and Ap Review fee or wit Review shall con Section G.2App	Review is required, Dist plicant must pay a non hdraw its Interconnecti sist of the application o plicants that pass Scree onnect without addition	refundable on Reques f Screens I ens N throu	Supplemental t. Supplementa N through P in	I
		cannot be interco System by means	Review reveals that a p onnected to Distribution s of Fast Track evaluat nat Detailed Study will	Provider's ion, Distrib	Distribution ution Provider v	Í I
1		and/or study are interconnected w	ast Track evaluation m required before the Ge ith Distribution Provide the Generating Faci	nerating Fa r's Distribut	acility can be tion System It	
						(Continued)
	dvice Lette ecision No		lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
57	7C0		Vice President Regulatory Relation	5	Resolution No.	

PG&E	Son Er	: Gas and Electric Co ancisco, California	mpany Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		GENE	ELECTRIC RULE NO RATING FACILITY INTER		IONS	Sheet 55
F. F	REVIE	W PROCESS FO	R INTERCONNECTION		STS (Cont'd.)	(N)
1.		ERVIEW OF THE	E INTERCONNECTION	REVIEW	PROCESS	
	C.	Detailed Studies	i			
		apply directly for evaluation, or do shall consist of of Process; (ii) Dist Cluster Study Pr depend on the re Interconnection I interdependent v impacts on the T proceed to the T Requests that ar interconnection r and thereby pass Independent Stu depending on the	rill be required for Interco Detailed Study, are not not pass Fast Track eva ne of three study proces ribution Group Study Pro ocess The specific study soults of Screens Q and Requests that are found with earlier-queued interco ransmission System, an ransmission Cluster Study e not electrically interde equests with impacts on s Screen Q, will be studi dy Process or the Distrit e results of Screen R.	eligible fo aluation I sses: (i) In ocess; or ( dy process R in Sectii to be elec connectior d thereby dy Proces pendent w the Trans ed under 6	r Fast Track Detailed Study dependent Study dependent Study iii) Transmissio that is applied on G.3. trically requests with fail screen Q, v s. Interconnect ith earlier-queu smission Syster either the	on I I will I Vill I tion I Jed I m, I
	u.	timelines set out Provider and Ap Provider shall de disputes over mi information of the Provider's websi If at any time an of Distribution Pr may use the follo (i) Contact the (ii) If the Distrib dispute with	ider shall use Reasonab in this Rule, or mutually blicant pursuant to Secti- signate an ombudsman ssed timelines. The iden e ombudsman shall be a te. Applicant is dissatisfied ovider to meet the timeli- bwing procedures: ombudsman designated ution Provider ombudsm in ten (10) Business Day the Consumer Affairs B	modified on D.15. I with author ntity, role, wailable o with the R ines in this by Distrib nan is unal vs, Applica	by Distribution Each Distribution ority to resolve and contact n Distribution easonable Effor s Section, Appli oution Provider; ole to resolve th int may either:	on                         
Advice Le	ttor No:	4110-E	Issued by		Date Filed	(Continued)
Decision I		4110-E 12-09-018	Brian K. Cherry Vice President		Effective Resolution No.	DRAFT 2/19/201
58C0			Regulatory Relations		_	

	PG⁄		San E		<b>s and Electric Co</b> l sco, California	mpany	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31923-Е 30235-Е
					GENE	ELECTI RATING FAC	RIC RULE NO		IONS	Sheet \$	56
	F.	RI	EVIE	W F	PROCESS FO	R INTERCO	NNECTION	REQUES	STS (Cont'd.)		(N)
		1.	O١	/ER\	/IEW OF THE		NECTION I	REVIEW F	PROCESS (Co	onťd.)	i
			d.	Со	mpliance with	Timelines (	Conťd.)				i
				b)	request for r Coordinator Division. Th adr program subject line. timeline disp Distribution I available, the	nediation to in the Comn request m <u>merequest</u> The reques bute. A copy Provider om e mediator a d Distributio	the Alternati nission's Adi ay be made <u>gov</u> , and sha st shall conta of the requi budsman. F issigned sha	ve Dispute ministrative by electro ill state "Re in the rele est shall be Provided th ill schedule	nic mail to ule 21" in the want facts of t	ADR) he are with	
				Cor	any time, Appl mmission purs Commission's	suant to Ćali	fornia PUC (	Section 1	702 and Articl	e 4 of	
		2.	FA	STI	FRACK INTER	RCONNECT	ION REVIE	V PROCE	SS		i
			a.	Init	ial Review						
				Dis Sec Fac or ( extr App	on receipt of a tribution Provi ction G.1. The cility qualifies f ii) the Genera aordinary circ blicant in writir siness Days fo	ider shall per e Initial Revie for Fast Trac iting Facility cumstances, ng of the res	rform Initial I ew determin ck Interconne requires a S Distribution ults of Initial	Review us es if (i) the ection thro upplemen Provider s Review w	ing the proces Generating ugh Initial Rev tal Review. A shall notify ithin fifteen (1	view, bsent 5)	             (N)
											tinued)
	Advic Decis				110-Е 2-09-018	Bria	lssued by an K. Cherry		Date Filed Effective	DRAFT	2/19/2013
	59C0						ce President latory Relations		Resolution No.		

	Gas and Electric Company ancisco, California	Cancelling	Revised Original	Cal. P.U.C. Sheet I Cal. P.U.C. Sheet I	
		ECTRIC RULE NO			Sheet 57
F. REVIE	W PROCESS FOR INTI	ERCONNECTION	N REQUE	STS (Cont'd.)	(N)
2. FA	ST TRACK INTERCON	NECTION REVIE	W PROCI	ESS <u>(Cont'd.)</u>	İ
a.	Initial Review (Cont'd.)				ļ
	For Interconnection Rec require Interconnection Distribution Provider sh Interconnection Agreem providing notice of Initia Requests that pass Initi Facilities or Distribution of providing notice of In shall provide Applicant Interconnection Facilitie	Facilities or Distr all provide Applic hent within fifteen il Review results. al Review but do Upgrades, withir itial Review resul with a non-bindin	ibution Up ant with a (15) Busi -For Intel require In fifteen (1 ts, Distribu g cost est	ogrades, Generator ness Days of rconnection terconnection 5) Business Day ution Provider imate of the	               
	For all Interconnection I Section F.2.e for cost re the Generator Interconr	esponsibility and	ime frame		
	For Interconnection Red Provider shall provide the supporting the Initial Red the option to either atter proceed directly to Supp Applicants covered und Supplemental Review we meeting. Applicant sha Business Days following an Initial Review results Review, or (iii) withdrawe may request one extens to respond. If Applicant ten (10) Business Days extension, if one was red	the technical reasonation wiew results in with an Initial Review of an Initial Review er Section D.13.1 without an Initial F Il notify Distribution g such notification meeting, (ii) pro- the Interconnect sion of no more the tails to notify Dis- of such notification	on, data a riting and w results v. Net End shall pro deview res on Provide whether ceed to Su cion Reque tion Reque tion requestion F on, or at the	nd analysis provide Applican meeting or ergy Metering ceed directly to sults er within ten (10) to (i) proceed to upplemental est. Applicant 0) Business Days Provider within he end of the	         S   
	be deemed withdrawn. No changes may be ma or Generating Facility s during the Initial Review to by Distribution Provic reached, Applicants cho Interconnection or Gene a new Interconnection F	ize included in the v Process, unless der Where agree posing to change erating Facility size	e Intercon such cha ment has the Point	nection Request nges are agreed not been of	it I (N)
Advice Letter No:	4110-E	locued by		Date Filed	(Continued)
Decision No.	12-09-018	Issued by Brian K. Cherry Vice President Regulatory Relations		Effective	DRAFT 2/19/201

	PG/eF		: Gas and Electric Company ancisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31925-Е 30237-Е	
				ECTRIC RULE NO		TIONS	Sheet 5	8	
	F.		W PROCESS FOR INTE			STS (Contid )		(N)	
			ST TRACK INTERCONN			. ,			<b>Formatted:</b> Indent: Left: 0.3"
	-		Initial Review (Cont'd.)			<u></u>		i	
			Applicants that elect to p a nonrefundable Supple with their response. The Interconnection Reques <u>Sections 2827, 2827.8</u> 03-057 and for solar-por power to Distribution Pro 027.	mental Review fe e Supplemental F ts requesting Inte , or 2827.10, per wered Generating	e set fort Review fee rconnecti Commiss Facilities	h in Section E e shall be waiv on pursuant to ion Decision E s that do not s	.2.c ved for o PUC ). 02- ell		( <b>Formatted:</b> Indent: Left: 0.88"
		b.	Optional Initial Review I	Results Meeting					
			Within five (5) Business Review results meeting, and offer to convene a r the Initial Review screer what modifications, if an connected safely and re	Distribution Prov neeting at a mutu naalysis and rel ny, may permit the	ider shall ally acce ated resu Generat	contact Applic ptable time to Its to determin ing Facility to	review e		
connected safely and reliably without Supplemental Review.       I         If modifications that obviate the need for Supplemental Review are identified, and Applicant and Distribution Provider agree to such imodifications, Distribution Provider shall provide Applicant with a identified of the Initial Review results meeting if no Interconnection in the Initial Review results meeting if no Interconnection in Facilities or Distribution Upgrades are required. If Interconnection in Facilities or Distribution Upgrades are required, Distribution Provider is shall provide Applicant with a non-binding cost estimate of any interconnection Facilities or Distribution Upgrades within fifteen (15) is usiness Days of the Initial Review results meeting. For all interconnection Requests that pass Initial Review, refer to Section if F.2.e for cost responsibility and time frames for completing the interconnection Agreement.									
Ľ	dvice L becision 1C0	etter No: n No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.		inued) 2/19/2013	

	PG&	San Fr	<b>: Gas and Electric Con</b> ancisco, California	npany	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		31926-E 30238-E
			GENEF	ELECTRIC RATING FACIL	C RULE NO		IONS	Sheet 5	59
	F.	REVIE	W PROCESS FO	R INTERCON	INECTION	REQUES	STS (Cont'd.)		(N)
	2	2. FA	ST TRACK INTER	RCONNECTIC	N REVIEW	V PROCE	SS (Cont'd.)		ļ
1		b.	Optional Initial R	eview Results	Meeting (	Cont'd.)			
			If Applicant and E modifications that shall notify Distribt Initial Review ress Supplemental Res Applicant may rep Days to respond. five (5) Business end of the extens Request shall be	t enable Appli bution Provide ults meeting v view or withdu quest one exter If Applicant f Days of the Ir ion, if one wa	cant to pas r within fiv whether it v raw its Inte ension of r ails to noti nitial Revie s requeste	es Initial R e (5) Busi vould like rconnection o more th fy Distribu w results	eview, Applica ness Days of t to proceed wit on Request. an five (5) Bus tion Provider v meeting, or at	int he h siness vithin	
		C.	Supplemental Re	eview					I
			If Applicant reque nonrefundable Su Provider shall co Business Days, a authorization and if (i) the Generatin (ii) the Generatin	upplemental R mplete Supple bsent extraor receipt of the ng Facility qua	eview fee, emental Re dinary circ fee. Supp alifies for F	if require view with umstance plemental ast Track	d, Distribution in twenty (20) s, following Review detern	nines n, or	
I			For Interconnecti not require Interco Distribution Provi Interconnection A providing notice of Requests that pa Interconnection F Business Days of Distribution Provi estimate of any In For all Interconne to Section F.2.e ff the Generator Interconnection	onnection Fac der shall prov Agreement wit of Supplement ss Supplemer acilities or Dis f providing not der shall prov terconnection ection Reques for cost respor	cilities or D ide Applica hin fifteen cal Review stribution L ice of Sup ide Applica h Facilities ts that pas hibility and	istribution ant with a (15) Busir results. v and do r Jpgrades, plemental ant with a or Distribu s Suppler d time frar	Upgrades, Generator hess Days of For Interconne equire within fifteen ( Review result non-binding cc ution Upgrades nental Review,	ction 15) s, pst s. refer	                         
	Advice L Decision	etter No: n No.	4110-E 12-09-018	Brian	ued by <b>K. Cherry</b> President		Date Filed		tinued) 2/19/2013
	62C0				President ory Relations		Resolution No.		

<page-header>          San Figures California         Cancelling Revised Cal. P.U.C. Sheet No.           ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS         Sheet GENERATING FACILITY INTERCONNECTIONS           6.         REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         .           6.         REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         .           7.         REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         .           8.         GENERATING FACILITY INTERCONNECTION REQUESTS (Cont'd.)         .           9.         For Interconnection Requests that fail Supplemental Review, Distribution provider shall provide the technical reason, data and analysis supporting the Supplemental Review results meeting or proceed directly to Detailed Study. Applicant qualifies for, and provide Applicant the option to attend a Supplemental Review results meeting (ii) proceed to Detailed Study. (ii) (iii) withdraw the Interconnection Request. Applicant may request one extension of no more than fifteen (15) Business Days to respond. If Applicant fails to notify Distribution Provider within fifteen (15) Business Days of such notification, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn.           Applicants that elect to proceed to Detailed Study shall provide the applicable study deposit set forth in Section E.3 a with their response. Detailed Study refer so solar Generating Facilities up to 1 MW interconnecting to the Distribution System that do not sell power to Distribution Provider will be waived up to the amount of \$5,000 Generating Facilities eigible for Net Energy Metering under PUC esections 2827, 2827, 8 or 2827,10 ar exempt from any costs</page-header>	T 2/19/2013
Exam Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS         Sheet GENERATING FACILITY INTERCONNECTIONS         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         2. FAST TRACK INTERCONNECTION REVIEW PROCESS (Cont'd.)         C. Supplemental Review (Cont'd.)         Colspan="2">Content Content	ntinued)
Exam Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS         Sheet GENERATING FACILITY INTERCONNECTIONS         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         2. FAST TRACK INTERCONNECTION REVIEW PROCESS (Cont'd.)         C. Supplemental Review (Cont'd.)         Colspan="2">Content Content	
San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         Image: California       Cal. P.U.C. Sheet No.         Image: California       Sheet         Image: California       Sheet         Image: California       Sheet         Image: California       Sheet         Sheet         GENERATING FACILITY INTERCONNECTIONS         Sheet         Sheet         GENERATING FACILITY INTERCONNECTIONS         Sheet         Sheet         GENERATING FACILITY INTERCONNECTIONS         Sheet         GENERATING FACILITY INTERCONNECTION         Califies of Cont'd.)         C FAST TRACK INTERCONNECTION REQUESTS (Cont'd.)         C Interconnection Requests that fail Supplemental Review, Distribution Provider shall provide the technical reason, data and analysis supporting the Supplemental Review results in writing, including, if Distribution Provider can make the determination, which Detailed Study track Applicant qualifies for, and provide Applicant the option to attend a Supplemental Review results meeting, (ii) proceed to a Supplemental Review results meeting, (ii) proceed to a Supplemental Review results meeting, (iii) proceed to a Supplemental Review results meeting, (ii) procee	         (N)
San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21 GENERATING FACILITY INTERCONNECTIONS         Sheet         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         2. FAST TRACK INTERCONNECTION REVIEW PROCESS (Cont'd.)         C. Supplemental Review (Cont'd.)         C. Supplemental Review (Cont'd.)         C. Supplemental Review (Cont'd.)         For Interconnection Requests that fail Supplemental Review, Distribution Provider shall provide the technical reason, data and analysis supporting the Supplemental Review results in writing, including, if Distribution Provider can make the determination, which Detailed Study track Applicant qualifies for, and provide Applicant the option to attend a Supplemental Review results meeting or proceed directly to Detailed Study. Applicant shall notify Distribution Provider within fifteen (15) Business Days following such notification whether to (i) proceed to a Supplemental Review results meeting, (ii) proceed to Detailed Study, or (iii) withdraw the Interconnection Request. Applicant may request one extension of no more than fifteen (15) Business Days to respond. If Applicant fails to notify Distribution Provider within fifteen (15) Business Days of such notification, or at the end of the extension, if one was requested, the Interconnection Request shall be deemed withdrawn.         Applicants that elect to proceed to Detailed Study shall provide the applicable study deposit set forth in Section E.3.a with their response. Detailed Study fees for solar Generating Facilities up to 1 MW interconnecting to the Distribution	
San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21       Sheet         GENERATING FACILITY INTERCONNECTIONS         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)         2. FAST TRACK INTERCONNECTION REVIEW PROCESS (Cont'd.)         C. Supplemental Review (Cont'd.)         Content of the technical reason, data and analysis supporting the Supplemental Review results in writing, including, if Distribution Provider can make the determination, which Detailed Study track Applicant qualifies for, and provide Applicant the option to attend a Supplemental Review results meeting or proceed directly to Detailed Study. Applicant shall notify Distribution Provider within fifteen (15) Business Days following such notification whether to (i) proceed to a Supplemental Review results meeting, (ii) proceed to Detailed Study, or (iii) withdraw the Interconnection Request. Applicant may request one extension of no more than fifteen (15) Business Days to respond. If Applicant fails to notification, or at the end of the extension, if one was requested, the Interconnection	
San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21       Sheet         GENERATING FACILITY INTERCONNECTIONS	
San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.         ELECTRIC RULE NO. 21       Sheet         GENERATING FACILITY INTERCONNECTIONS	(N) I
Son Eronoison California Cancelling Povisod Cal PLLC Sheet No.	60
	31927-E 30239-E

	PF/8			e Gas and Electric Company ancisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31928-E <sup>•</sup> 30240-E
					LECTRIC RULE NO		IONS	Shee	et 61
	F.	REV	/IE	W PROCESS FOR INT	ERCONNECTION	REQUE	STS (Cont'd.)		(N)
		2. F	A	ST TRACK INTERCONI	NECTION REVIEW	V PROCE	SS (Cont'd.)		
I		C	ł.	Optional Supplemental	Review Results M	leeting <u>(C</u>	cont'd.)		
1				If modifications that obv and Applicant and Distr Distribution Provider sh Interconnection Agreen Supplemental Review r or Distribution Upgrades a Applicant with a non-bin Facilities or Distribution the Supplemental Revie Requests that pass Sup cost responsibility and Interconnection Agreen	ibution Provider a all provide Applica- nent within fifteen esults meeting if r s are required. If are required, Distri- nding cost estimat Upgrades within w results meeting oplemental Review time frames for co	gree to su ant with a (15) Busir o Intercon Interconne bution Pro e of any In fifteen (15 g. For all v, refer to	ich modificatio Generator ness Days of the nection Facilitie ovider shall pro- nterconnection ) Business Da Interconnectio Section F.2.e	ns, he ties s or ovide n ys of n	
				If Applicant and Distrib to modifications, Applic twenty (20) Business D Meeting whether it wou withdraw its Interconne extension of no more th Applicant fails to notify Business Days of the S end of the extension, if Request shall be deem proceed to Detailed Stu set forth in Section E.3	ant shall notify Dis bays of the Supple ild like to proceed action Request. Ap nan twenty (20) Bu Distribution Provid Supplemental Revi one was requeste ed withdrawn. Ap udy shall provide t	stribution I mental Re with Deta oplicant m usiness Da der within ew results ed, the Into oplicants the	Provider withir eview Results iled Study or lay request on ays to respond twenty (20) s meeting, or a erconnection hat elect to	e J. If at the	
		e	).	Execution of the Gener	ator Interconnecti	on Agreer	ment		
				Following the receipt of and/or Interconnection that did not require a co paragraph below), Appl fifteen (15) Business Da Generator Interconnect Interconnection Reques more than fifteen (15) E notify Distribution Provi end of the extension, if Request shall be deem	Facilities that have ost estimate may p icant shall notify D ays whether Applic ion Agreement, or st Applicant may Business Days to r der within fifteen ( one was requeste	e been ide proceed di Distributior cant: (i) re (ii) withdu request o espond. 15) Busin	entified (Applic rectly to the Provider with quests a raws its ne extension o If Applicant fai ess Days, or a	ants nin of no ls to nt the	             (N) :ontinued)
	Advice Decisio	Letter on No.	No:	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRA	FT 2/19/2013
	64C0				Vice President Regulatory Relations		Resolution No.		

L

1

Pacific C San Fran U 39	Gas and Electric Company ncisco, California	Cancelling	Revised Revised	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
		ECTRIC RULE NO			Sheet 62
F. REVIE	W PROCESS FOR IN	TERCONNECTIO	N REQU	ESTS (Cont'd.)	(Ņ)
2. FA	ST TRACK INTERCOM	NECTION REVI	EW PROC	CESS (Cont'd.)	
e.	Execution of the Gene	erator Interconned	ction Agre	ement <u>(Cont'd.)</u>	
	If Applicant elects to p Agreement, Distribution Generator Interconnect within fifteen (15) Bus Upon receipt of a draft Applicant has ninety (9 Generator Interconnect written comments, or 1 Generator Interconnect thirty (30) Calendar Da Provider shall begin m Distribution Provider p Interconnection Agreet cost estimate for any I Facilities that have be Distribution Provider a cost estimate, or any of draft Generator Interconnect Applicant with the Ger Applicant determines request termination of Resolution procedures sign the Generator Inter Resolution within nine Request shall be deer After Applicant, or a F	on Provider shall p ction Agreement f iness Days of App t Generator Interce 90) Calendar Day ction Agreement. notification of no ction Agreement a aysAt the reque egotiations with A provides Applicant ment, which cont Distribution Upgra en identified by D and Applicant sha disputed provisior onnection Agreem Days after Distribu- nerator Interconnec the negotiations the negotiations s pursuant to Sec erconnection Agr ty (90) Calendar med withdrawn.	provide Application or Application connection is to sign a Applicant comments and appen st of Appl pplicant a twith the or ains in its des and/or istribution il negotiation and initiation connection Agria and initiation and initiation cement or Days, the	pplicant with a int's signature equest. Agreement, and return the shall provide , to the draft dices within icant, Distribution t any time after draft Generator appendices the or Interconnection Provider. e concerning the ppendices to a ot more than der provides eement. If mpasse, it may e Dispute Applicant fails to initiate Dispute Interconnection	
	has executed the Ger Distribution Provider of construction and insta Upgrades and/or Inte identified in the Gene Distribution Provider a meet schedules in ac	nerator Interconne will commence de allation of Distribu rconnection Facili rator Interconnec and Producer will cordance with the	ection Agr sign, proc tion Provie ties that h tion Agree use good requirem	eement, curement, der's Distribution ave been ment. faith efforts to ents of the	
	Generator Interconne appropriate. Produce Parallel Operation to the Distribution Syste Section E.4.	er is responsible for support the safe a	or all costs and reliabl	associated with e operation of	I I (N) (Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Effective	DRAFT 2/19/2013
65C0		Vice President Regulatory Relations		Resolution No.	

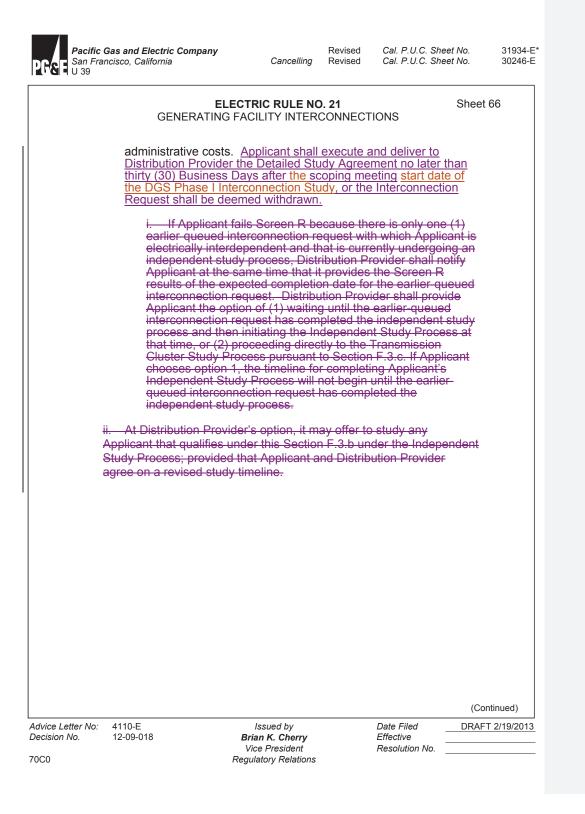
PG&E	Con Fre	Gas and Electric Company ncisco, California	Cancelling	Revised Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
			ECTRIC RULE NO FACILITY INTER			Sheet 63
F.	REVIE	EW PROCESS FOR INT	ERCONNECTIO	N REQUE	ESTS (Cont'd.)	(N)
	2. FA	ST TRACK INTERCON	NECTION REVI	EW PROC	ESS (Cont'd.)	
	e.	Execution of the Gene	rator Interconned	ction Agree	ement (Cont'd.)	
		Distribution Provider and concerning a schedule Provider's Interconnec	for the construct	ion of Dist	tribution	
	3. DE	TAILED STUDY INTER	CONNECTION I	REVIEW F	PROCESS	
	a.	Detailed Study Track S	Selection Proces	6		
		Applicants that apply d enter the Transmission application of Screens Fast Track evaluation Distribution Provider sl the Detailed Study trac provide that informatio as set out in section F. Detailed Study track for determined by the app Applicants that require extraordinary circumst following validation of a the appropriate study of Distribution Provider w Screen R and provide forth below.	Cluster Study P Q and R. For Ap put failed the Sup nall determine, to k for which Applic 2.c. For all other r which Applican lication of Screer application of Sc ances, within twe an Interconnection deposit set forth i ill apply Screen C Applicant with the	rocess wit plicants th pplementa the exten cant is eligible cant is eligible s Q and F creens Q a nty (20) B n Reques n Section Q, and if all e screen ro	hout the lat applied for l Review, t practicable, gible and eview Results is, the specific will be R. For and R, absent usiness Days t and receipt of E.3.a, pplicable, esults as set	
		If Applicant fails Screen data and analysis supp <u>Interconnection Reque</u> <u>Section F.3.c below</u> an to the Transmission Clu notify Distribution Provi following such notificat the Transmission Clust Interconnection Reque of no more than twenty Applicant fails to notify Business Days of recei the extension, if one was shall be deemed withdow	orting Screen Q st will be process d provide Applica uster Study Proce der within twenty on whether it wo er Study Process st. Applicant may (20) Business D Distribution Prov ving the Screen as requested, the	results in v sed in acco ant the opt ess. Appli v (20) Busi uld like to s or (ii) wit v request c ays to res ider within Q results,	writing <u>. The</u> ordance with ion to proceed cant shall ness Days (i) proceed to hdraw the one extension pond. If twenty (20) or at the end of	
Advice Le Decision I		4110-E 12-09-018	Issued by		Date Filed	DRAFT 2/19/2013
66C0	vU.		Brian K. Cherry Vice President Regulatory Relations		Resolution No.	

PG		<b>: Gas and Electric Com</b> ancisco, California	pany Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet		
		GENER	ELECTRIC RULE NO ATING FACILITY INTER			Sheet 64	
F	. REVIE	W PROCESS FOI	R INTERCONNECTION	N REQUE	STS (Cont'd.)	(N) I	
	3. DE	TAILED STUDY IN	NTERCONNECTION R	EVIEW P	ROCESS		
	a.	Detailed Study Tr	ack Selection Process	(Cont'd.)			
		Process, the Inter	to proceed to the Distr connection Request wi Section F.3.b below.				
		If Applicant elects Process, Intercon with Section F.3.c	to proceed to the Tran nection Request will be below.	smission processe	Cluster Study ed in accordance	) )     	
	<u>db</u> .	Independent-Dist	ribution Group Study P	rocess			
		i) Initiation of D	istribution Study Proce	<del>ssi) <u>G</u>rou</del>	p		
		Applicant mu Interconnection close of the re includes notif	for inclusion in a Distrist submit all materials ron on Request no later that elevant Distibution Gro ication from Applicant to on Group Study Proces	equired to an 10 busi up Study hat they y	<u>o complete their</u> ness days after window. This vant to proceed		
		for the group window, using	rovider shall perform a within twenty (20) Busi g the best available info the group study proces	ness Day prmation a	s of the close of about projects the	the I	
		projects witho may elect to p Process, pure	ails Screen Q, the Distr frawn from Rule 21 and proceed with the Trans suant to Section F.3.c.	d notify Ap mission C	oplicants. Applica luster Study	the ants	
		Interconnection	eligible to participate i on Study, Scoping Mee	ting must	be complete an	<u>d</u> l	<b>Formatted:</b> Font color: Black
		the Applicant to the start da	must execute the Deta ate of the DGS Phase I	iled Study Interconn	Agreement prid lection Study.	<u>or</u> (N) (	<b>Formatted:</b> Not Highlight
						(Continued)	,
	ice Letter No:	4110-E	Issued by		Date Filed	DRAFT 2/19/2013	
Deci 67C	ision No. 0	12-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.		

<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31933-Е 30245-Е			
ELECI GENERATING FA	<b>RIC RULE NO</b> CILITY INTER		IONS	Sheet 65	5			
F. REVIEW PROCESS FOR INTERC	ONNECTION	I REQUES	STS (Cont'd.)		(N)			
3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.)								
db. Independent Distribution G	roup Study P	<u>rocess</u> (Co	onťd.)		i			
<u>Study Processii) Scopin</u>	g Meeting							
Within five (5) Business notifiesperforms the Ele notifiescontact the Appl Interconnection Reques R and is thus eligible fo Process, Distribution Pl establish a date agreea for a scoping meeting.	ectrical Indepe icant <u>-to notif</u> ist has passed r the <del>Indeper</del> <del>ovider shall c</del>	enence Te y <u>them</u> tha Screens ( dent-Distri contact Ap	<u>st, it will</u> t the Q and <u>failed S</u> bution Group plicant to <u>and</u>	Study				
The Distribution Provide applicable, shall determ is at or near the bounda potentially impact such potential impact is mad Affected System Opera them of the time and pl soon as practicable.	nine whether the ary of an Affe Affected Sys e, the Distributor(s) to the S	the Interco cted Syste tem(s). If ation Provi Scoping Me	nnection Req m(s) so as to a determination der shall invite seting by infor	on of e the ming				
b. Distribution Group scoping meeting shall I Operation Dates and a exchange information, reasonably be expecte options; (iii) to analyze feasible Points of Interor resources and available the expected start date <u>Study</u> DGS Phase I Interor	be: (i) to discu ternative internative internative internative internative internation d to impact A such information are e information of the next a	iss reason rconnectic transmiss pplicant's i tion; <del>and (</del> id eliminat <u>and (v) to</u> pplicable [	able Commer on options; (ii) ion data that v nterconnectio iv) to determine alternatives advise Applic	cial to would n given <u>cant of</u>	           (N)			
F. REVIEW PROCESS FOR INTERCO				' <del>d.)</del>				
				(Contir	(Continued)			
	lssued by r <b>ian K. Cherry</b> /ice President		Date Filed Effective Resolution No.	DRAFT 2	/19/2013			
	ulatory Relations							

	Gas and Electric Company ancisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31933-E 30245-E			
		LECTRIC RULE NO		IONS	Sheet 6	5			
<del>a.</del> E	Detailed Study Track Se	election Process (C	<del>Cont'd.)</del>						
μ φ φ φ	If Applicant passes Screen Q, but fails Screen R, Distribution Provider shall provide the data and analysis supporting the Screen R results in writing and provide Applicant the option to proceed to the Distribution Group Study Process.								
					(Conti	nued)			
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT	2/19/2013			
69C0		Vice President Regulatory Relations		Resolution No.					

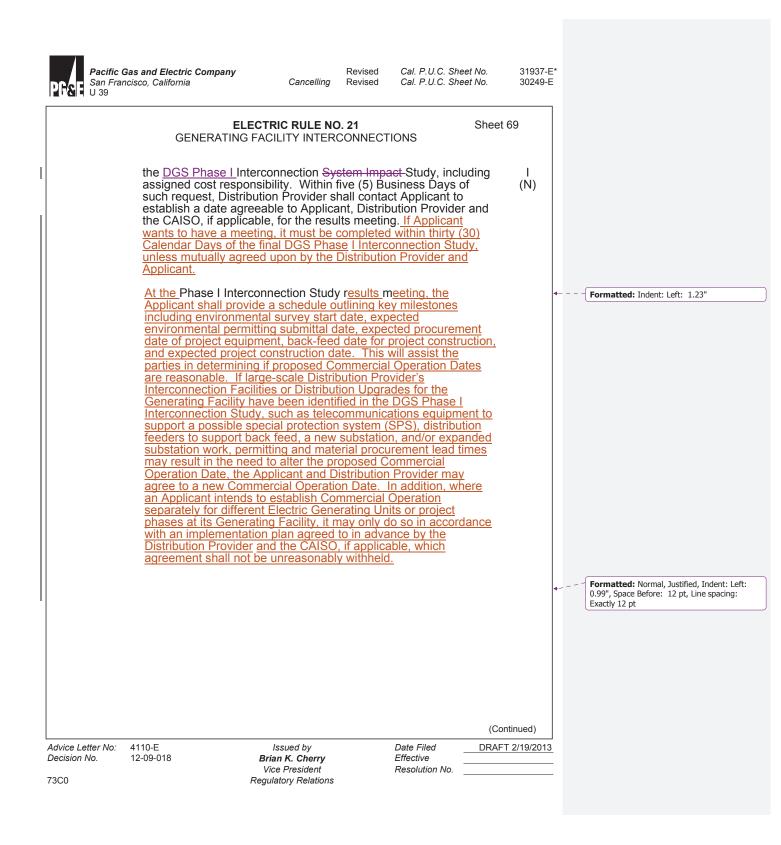
	Gas and Electric Company Incisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		1934-E* 0246-E	
	ELEC GENERATING FA	<b>FRIC RULE NO</b> CILITY INTERC		IONS	Sheet 66		
	W PROCESS FOR INTERC			. ,	,	N)     	
	Independent-Distribution C ii) Scoping Meeting (Cont F. REVIEW PROCE	'd.)		,	ESTS		
<del>21 3.</del> –	(Cont'd.) DETAILED STUDY IN (Cont'd.) Distribution Provider w				<del>SS</del>	       	
	reasonably necessary available technical dat facility loadings, (ii) ge circuit issues, (iv) gene reliability issues.	to accomplish a, including, bu neral instability	its purpos it not limit issues, (	se, such alrea ted to: (i) gene iii) general sh	eral		
	Applicant will bring to t technical data in Attack Generating Facility Inte studies previously perf applicable, and Applica and other resources as the purpose of the mee	ment À of the connection Re ormed. Distribunt will also brir may be reaso	Rule 21 E equest fo ution Pro- ng to the nably req	Exporting rm, any syste vider, the CAI meeting perso juired to accol	SO, if nnel nplish	•	
	During the meeting, Ap Interconnection. The c sufficient to accomplish	uration of the r	esignate i meeting s	<u>ts Point of</u> hall be only w	<u>l</u> hat is		
	Within fifteen (15) Busi Distribution Provider st <u>Detailed Study Process</u> outline of the scope of Impact-Study and <u>DGS</u> contain a non-binding such studies, and shall actual cost of the Intere	all provide App Study Agreen the <u>DGS Phase</u> <u>Phase II Inter</u> good faith estin specify that Ap	plicant wir nent, which e I Interco connection nate of the oplicant is	th an <u>Indepen</u> ch shall conta onnection <del>Sys</del> on <del>Facilities</del> St e cost to perfo s responsible	n an (l t <del>em</del> udy, prm for the	ed)	
Advice Letter No: Decision No. 70C0		Issued by <b>rian K. Cherry</b> Vice President julatory Relations		Date Filed Effective Resolution No.	DRAFT 2/19	9/2013	



Pacific Gas and Electric Company San Francisco, California U 39	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She			
ELECTF GENERATING FAC	RIC RULE NO		IONS	Sheet 67		
F. REVIEW PROCESS FOR INTERCO	IECTION RE	EVIEW PF	ROCESS (Con	í I		
<ul> <li>iii) Grouping of Interconnect Study</li> <li>The results of Screen R Requests to be grouped Study. An Interconnecti grouped with other proje interdependent through the date a DGS Phase I Distribution Provider will Group Study a list of the Distribution Group Study</li> <li>At the Distribution Prov received during a partice window may be studied or in a Distribution Group one or more of the anal For each Interconnectic Distribution Group Study</li> </ul>	will determin together for on Request tts that are the application Interconnec send to eac Interconnec der's option ular Distribuy individually up Study for yses forming n Study reconversion	ne the Inter each Dis that failed determine on of Scree tion Study th Applica ction Require tion Groun (Independ the purpo g the Inter eived with n window,	erconnection tribution Group Screen R will d to be electrivi- een R. No late / begins, nt in a Distribu- lests in its connection Reconstruction o Study Applic dent Study Pro- se of conduction connection Structure in the same the Distribution	$\frac{2}{2}$		
Decision No. 12-09-018 Bria Via	lssued by an K. Cherry ee President atory Relations		Date Filed Effective Resolution No.	DRAFT 2/19/201	013	

Pacific Gas and Electric Company       Revised       Cal. P.U.C. Sheet No.       31936-E         San Francisco, California       Cancelling       Revised       Cal. P.U.C. Sheet No.       30248-E         U 39       U 39       Cancelling       Revised       Cal. P.U.C. Sheet No.       30248-E	
ELECTRIC RULE NO. 21     Sheet 68       GENERATING FACILITY INTERCONNECTIONS     Sheet 68	
F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) (N)	
(Cont'd.)	Formatted: Indent: Left: 0.3", Hanging: 0.3", No bullets or numbering, Tab stops: 0.41", Left + Not at 0.25"
iv) Timing of the the DGS Phase I Interconnection Study.	
Absent extraordinary circumstances, Distribution Provider shall complete and issue a final DGS Phase I Interconnection Study report within sixty (60) Business Days from the start of the study. If the DGS Phase I Interconnection Study indicates a need for Network Upgrades, Distribution Provider will share applicable study results with the CAISO for review and comment and will incorporate comments into the final DGS Phase I Interconnection Study report.	Formatted: Indent: Left: 1.35"
System Impact At any time Distribution Provider determines       I         that it will not meet the required time frame for completing the       I         DGS Phase I Interconnection System Impact Study,       I         Distribution Provider shall notify all       I	
Applicants in the Distribution Study Group as to the status of I the DGS Phase I -Interconnection System Impact Study and I provide an estimated completion date with an explanation of I the reasons why additional time is required.	
Upon request, Distribution Provider shall provide any       I         Applicant in the Distribution Study Group all relevant       I         supporting documentation, workpapers and pre-       I         Interconnection Request and post-Interconnection Request       I         power flow, short circuit and dynamic/stability databases, and       I         currently planned Distribution Upgrades relevant to the       I         Interconnection Request for the DGS Phase I Interconnection       I         Study. Applicant may be required to sign a non-disclosure       I         agreement with terms consistent with Section D.7 regarding       I         Confidentiality.       I	Formatted: Indent: Left: 1.35"
If applicable, Distribution Provider will share the applicableIstudy results with the CAISO for review and comment, andIwill incorporate CAISO comments, if any, into the studyIreport prior to issuing a final DGS Phase I InterconnectionIStudy report to Applicants in the Distribution Study Group.(N)	
Advice Letter No:         4110-Er the Interconnection         Business Days after the scoping meeting.           Decision No.         12-09-018         DRAFT 2/19/2013	
Decision No.     12-09-018     Interfective     Effective       Vice President     Resolution No.       72C0     Regulatory Relations	

<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Revised Cancelling Revised	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	31937-Е* 30249-Е	
	IC RULE NO. 21 LITY INTERCONNEC	Shee	t 69	
On the basis of the meeti Interconnection. The dur sufficient to accomplish it	ng, Applicant shall d ation of the meeting s purpose.	lesignate its Point of shall be only what is	(N)   	
F. REVIEW PROCESS FOR INTERCO	NNECTION REQUE	<del>STS (Cont'd.)</del>		
3. DETAILED STUDY INTERCONN	ECTION REVIEW P	ROCESS (Cont'd.)		
d. Independent Study Process	<del>(Cont'd.)</del>			
<del>ii) ii) </del>			   	Formatted: Indent: Left: 0.92", Hanging: 0.31"
ii) Timing of the Interconnec	ction System Impact	Study Results.		
Provider sha Interconnect within(60) Bu Independent If the System Network Upg applicable st and commer	ordinary circumstan II complete and issu ion System Impact S Study Process Study ImpactStudy indica grades, Distribution I udy results with the ut and will incorporat mection System Imp	e a final Study report to execution of an ty Agreement.study ttes a need for Provider will share CAISO for review e comments into the		Formatted: Font color: Text 1 Formatted: Indent: Left: 2.13"
F. REVIEW PROCESS FOR INTERCO	NNECTION REQUE	<del>STS (Conťd.)</del>		
3. DETAILED STUDY INTERCONN	ECTION REVIEW P	ROCESS (Cont'd.)	į	
d. Independent Study Process	<del>(Cont'd.)</del>		İ.	
ii) Timing of the Interconnection F. REV INTERCONNECTION REQUESTS (Cont	(IEW PROCESS FO	R	Ī	
3. DETAILED STUDY INTERCONN	ECTION REVIEW P	ROCESS (Cont'd.)	l L	
b. Distribution Group Study Proc	<u>cess (Cont'd.)</u>		ļ ļ	
iii <u>v)</u> <u>DGS Phase I Interconne</u> Meeting.	ction <del>System Impact</del>	-Study Results	+ + + + + + + + + + + + + + + + + + + +	
If requested by <u>an_</u> Applica results meeting shall be h CAISO, if applicable, and	eld among Distribut	ion Provider, the cuss the results of	+     ontinued)	
Decision No. 12-09-018 Bria Vicu	ssued by <b>n K. Cherry</b> e President ttory Relations	Date Filed DRA Effective Resolution No.	FT 2/19/2013	



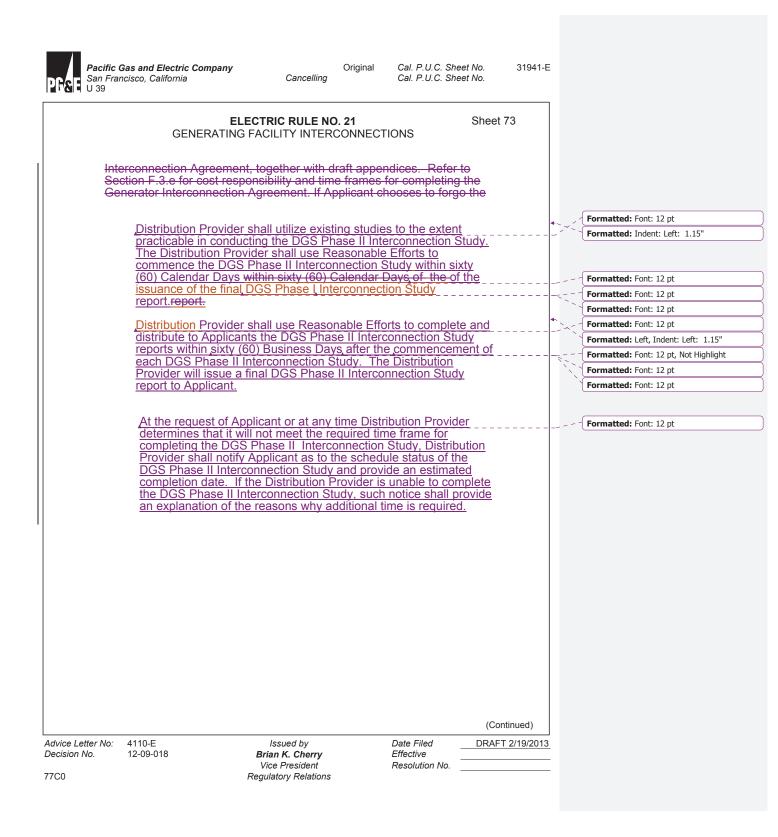
	Gas and Electric Company ancisco, California	Cancelling	Revised Revised	Cal. P.U.C. She Cal. P.U.C. She		31938-E 30250-E		
	ELEC GENERATING FA	TRIC RULE NO		IONS	Sheet 70			
	W PROCESS FOR INTER			. ,	nt'd )	(N) 		
	Independent Distribution (							
	→ i <del>iv)</del> <u>DGS Phase I</u> Intercon Meeting (Cont'd.)	nection <del>System</del>	Hmpact-	Study Results			4	Formatted: Numbered + Level: 1 + Numbering Style: i, ii, iii, + Start at: 4 + Alignment: Left + Aligned at: 0.9" + Indent at: 1.15"
	Where the parties can Operation Date, the C- reasonable by the Dist Phase II Interconnection Operation Date is nee completion, assuming Provider of necessary Provider's Interconnect relief sought by the Ap Applicant must notify the Business Days following dispute procedures un	ommercial Ope ribution Provid on Study where ded to accomm Reasonable E Distribution Up tion Facilities, pplicant under S he Distribution ng the Results	eration Da er will be the revision odate the forts by to grades a pending to Sections I Provider Meeting	ate determined used for the l sed Commerce anticipated he Distribution nd/or Distribution nd/or Distribution d/or Distribution f .1.d. or K. T within five (5) f it is initiating	DGS <u>ial</u> tion if any he			
	Distribution Provider a meeting to discuss the Study, including assign	results of the	DGS Pha	old a results ise I Interconr	nection	- <u> </u>   + - ]   -		Formatted: Font: 12 pt, Not Highlight Formatted: Font: 12 pt, Not Highlight
	Within five (5) Busines Interconnection Study to the Distribution Prov	results meeting	g, the Ap	olicant shall s	<u>ubmit</u>	 - ] - ]     		Formatted: Indent: Left: 1.23" Formatted: Font: 12 pt, Not Highlight Formatted: Font: 12 pt Formatted: Font: 12 pt Formatted: Font: 12 pt Formatted: Font: 12 pt
	<ul> <li>vi) Initial Posting of Interce</li> </ul>	onnection Fina	ncial Sec	urity.				Formatted: Font: 12 pt Formatted: Font: 12 pt
	Each Applicant in a Di posting of Interconnec the requirements of Se after being provided w Study report, or its Inte withdrawn. The initial	tion Financial S ection F.4.b, wi ith the final DG erconnection R	Security in thin sixty S Phase equest sh	n accordance (60) Calenda I <del>D</del> Interconne nall be deeme	<u>with</u> r Days ection	       (N)		
Advice Letter No: Decision No. 74C0		Issued by Brian K. Cherry Vice President gulatory Relations		Date Filed Effective Resolution No.	DRAFT 2	2/19/2013		

	Gas and Electric Company ncisco, California	Cancelling	Revised Revised	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
		ELECTRIC RULE NO			Sheet 70
	Upgrades, Distrib	ased on the cost re ution Upgrades, an acilities set forth in Study report.iv) inancial Security.	d Distribu the final [	tion Provider's DGS Phase I	
	Security in accord within sixty (60) C Interconnection S Interconnection R posting of Intercon cost responsibility and Distribution P	ake its initial posting lance with the requi- calendar Days after ystem Impact Stud equest shall be der nnection Financial- for Network Upgra rovider's Interconn tection System Imp	irements being pro y report, c emed with Security v des, Distr ection Fa	of Section F.4.b, wided with the find or its widrawn. The initi vill be based on t ribution Upgrade cilities set forth in	nal al the s,
Advice Letter No:	4110-Е	Issued by		Date Filed	(Continued) DRAFT 2/19/2013
Decision No. 74C0	12-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.	

	<b>: Gas and Electric Company</b> ancisco, California	Cancelling	Revised Revised	Cal. P.U.C. Shee Cal. P.U.C. Shee		31939-Е 30251-Е
		ECTRIC RULE NO FACILITY INTER		IONS	Sheet 7	'1
F. REVIE	W PROCESS FOR INTE	RCONNECTION	I REQUES	STS (Cont'd.)		(N)
13. DE	TAILED STUDY INTERC	ONNECTION R	EVIEW PF	ROCESS (Con	ťd.)	
d <u>b</u> .	Independent-Distributio	<u>n Group </u> Study P	rocess (C	ont'd.)		
	vij) Modifications					
	At any time during th Applicant, Distribution identify changes to the the costs and benefing and the ability of the Interconnection Requires acceptable to Distribution Provider and/or configuration altering the Intercon Interconnection Stud	on Provider, or the the planned Inter its (including relia proposed chang juest. To the ext pution Provider, t eptance not to be r shall modify the in accordance w nection Request	e CAISO, connection ability) of t ge to acco ent the ide he CAISO e unreasor Point of I vith such c	as applicable, n that may imp he Interconneo mmodate the entified change , as applicable nably withheld, nterconnection hanges withou	may prove ction, es are e, and n t	
	At the <u>DGS Phase I</u> meeting, Applicant s modifications to the publication of the fin <u>Impact</u> -Study report following the <u>DGS P</u> results meeting, <u>Ap</u> writing, modification Interconnection Req Applicant's request within two (2) Busing If no <u>DGS Phase I</u> In meeting is held, App requested modificati <u>Calendar</u> Days of th <del>System Impact</del> -Stud	should be prepare Interconnection al <u>DGS Phase I</u> , but no later tha <u>hase I</u> Interconn plicant shall sub s to any informat juest. Distributio for modification t ess Days of rece interconnection- <del>S</del> plicant shall subn ions with <u>in</u> -twen e receipt of the f	ed to discu Request. Interconne n five (5) ection <del>Sys</del> mit to Distri ion providen n Providen o the CAIS ipt. ystem Imp it to Distri ty five <u>thirt</u>	uss any desire After the Business Day tem Impact St ribution Provid ed in the will forward SO, if applicable spact Study resu bution Provide y (2530) Busin	d s udy er, in le, le, ults er any <del>ess</del>	             (N)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	``	inued) 2/19/2013
75C0		Regulatory Relations		-		

PG&		Gas and Electric Company ncisco, California	/ Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31940-E*
			ELECTRIC RULE NO NG FACILITY INTER		IONS	Sheet 7	2
F.	REVIEV	V PROCESS FOR IN	ITERCONNECTION	REQUES	STS (Cont'd.)		(N)
23	. DET	AILED STUDY INTE	RCONNECTION RI	EVIEW PF	ROCESS (Con	ıt'd.)	
	<u>db</u> .	Independent-Distribu	<u>ition Group</u> Study P	rocess (C	ont'd.)		
	١	vi) Modifications (Co	nťd.)				
I		specifically: (a) a proposed General parameters assort the Generating F characteristics; a configuration. Di applicable, will ev Interconnection F Distribution Provi modifications wor Business Days of Any change to th specified by Distr	mitted under this Se decrease in the ele ating Facility; (b) mo ciated with the Gen- acility step-up trans nd (c) modifying the stribution Provider, valuate whether the Request constitutes der will inform Appli uld constitute a Mat f receipt of the prop e Point of Interconn ribution Provider in a d under this Section tion.	ctrical out difying the erating Fa former imp interconr in coordin proposed a Material cant in wr erial Modi osed requ ection, ex an Intercol	put (MW) of the e technical pedance nection ation with CAI modification t I Modification t fication within fication within thest for modific cept for that nnection Study	ne gy or SO, if o the the 10 cation. y or	
		Modification, App modification or pr such modification ten (10) Business	nodification is deterr licant may either wi roceed with a new li n. Applicant shall m b Days after being p rmination results.	thdraw the nterconne ake such	e proposed ction Request determination		
		Modifications ma <u>System Impact D</u> modifications to t Upgrades. <u>Such</u> <u>Interconnection S</u> an estimate of tin associated increr	cations determined i y still necessitate th GS Phase I Interco he Interconnection re-evaluation will o StudyDistribution Pri- ne to complete the r nental cost required cant may either acc	e need to nnection S Facilities a ccur durin ovider will e evaluati	re-evaluate th Study to deterr and Distributio <u>g the DGS Ph</u> provide Applic ion and the	nine n <u>ase II</u>	       (N)
							inued)
Decision	Letter No: 1 No.	4110-E 12-09-018	Issued by Brian K. Cherry Vice President		Date Filed Effective Resolution No.	DRAFT	2/19/2013
76C0			Regulatory Relations				

	<b>Pacific Gas and Electric Co</b> San Francisco, California U 39	mpany Cancelling	Driginal	Cal. P.U.C. Shee Cal. P.U.C. Shee		E	
	GENE	ELECTRIC RULE NO. 2 RATING FACILITY INTERCO		ONS	Sheet 73		
F. R	EVIEW PROCESS FC	R INTERCONNECTION F	REQUES	TS (Cont'd.)	(N)		
<u>3</u> 3.	DETAILED STUDY	NTERCONNECTION REV	IEW PR	OCESS (Cont	d.) l		
	d <u>b</u> . Independent Di	stribution Group Study Pro	cess (Co	ont'd.)			
	v) Modifications	<del>s (Cont'd.)</del>					
	proposed mo Interconnect make such d	nd cost to complete the re odification request, or proce ion Request for such modif etermination within ten (10 ad the Material Modification	eed with ication. /	a new Applicant shall ss Davs after		«	Formatted: Indent: Left: 0.9", Hanging: 0.27"
		urpose of the Interconnection on Study and Study Depos		ties <u>DGS Phas</u>	ell I I		
	Interconnection Businessthirty Phase I Interce Phase I Interce Provider the of Generating F Facilities Stude out in Section accordance with a Generate writing to be re deemed nece responsible for support the si Transmission F.3.e for cost	(i) five (5) Business Days f on <u>Study</u> results meeting, or ( <u>30) Calendar</u> Days of the connection <del>System Impact</del> connection <del>System Impact</del> rer is earlier, Applicant sha data required by Distributio acilities 5 MW or less, App dy <u>DGS Phase II Interconnec</u> E.3.a <del>, unless the Facilitie</del> with Section F.3.d.vii. Facilitie or Interconnection Agreemed responsible for all actual co sesary by Distribution Provi or all costs associated with afe and reliable operation of responsibility and time fra erconnection Agreement.	or (ii) with e receipt Study re Il submit il submit licant sh ection Study staon Study est Study ent, Appi sts of al der. Appi Parallel f the Dis stion E.4 mes for d	hin twenty five of the final DC port if no DGS sults meeting to Distribution er. At that time all also submit udy deposit, as will be waived if and move dir icant must agr required facilit plicant is Operation to stribution and . Refer to Sect	(25)         I           S         I           s         I           e, for         I           the         I           sset         I           ectly         I           cetin         I           ies         I	*	Formatted: Left, Indent: Left: 1.12", Space Before: 0 pt, After: 12 pt, No widow/orphan control, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers, Tab stops: 1.42", Left
	viii) DGS Phase II	Interconnection Study Pro	cedures		 		Formatted: Font: 12 pt
		ver of the Interconnection I			   		)
	mutually agree to a Distribution Provide Study report to App	y may be waived if Distribu such waiver. Within thirty ( er provides the final Interco plicant (if the Interconnection on Provider shall tender a c	30) Cale onnectior on Facilit	ndar Days afte System Impa ies Study is	f I		
Advice Let Decision N 77C0		Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No	DRAFT 2/19/201	<u>3</u> 	



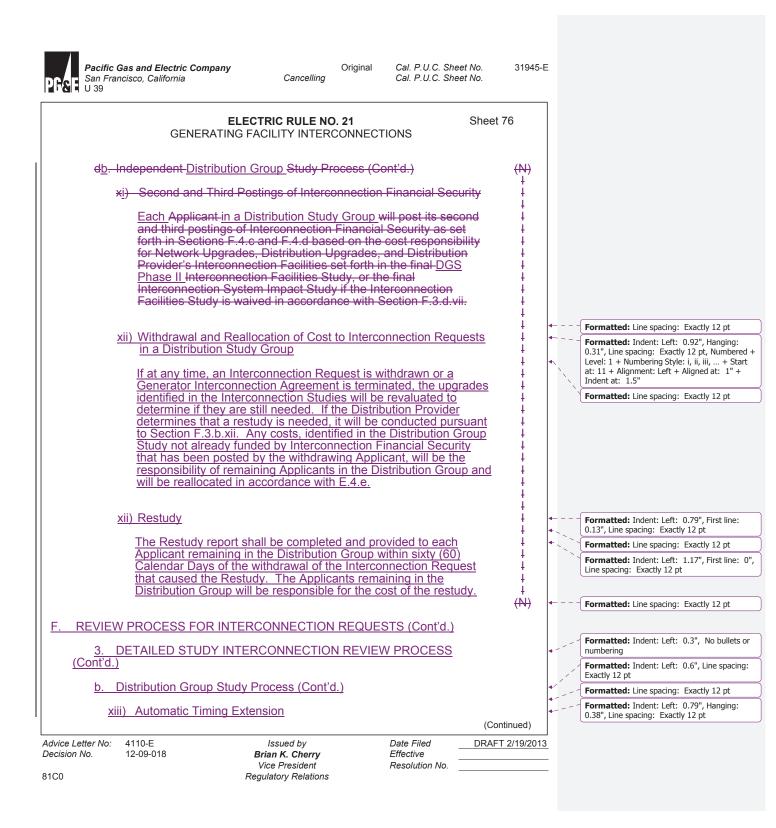
Pacific Gas and Electr San Francisco, Californ U 39		Cancelling	Original	Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No		-E*
G	ELECTRI ENERATING FACIL	<b>C RULE NO.</b> ITY INTERC			heet 74	
F. REVIEW PROCES: 43. DETAILED STU db. Independer viii) vii) viii) Facilitie Agreeme actual co Distribut associat operatio in Section time fran Agreeme (Cont'd), Upon rev Applican pre-Inter power, s Intercon consiste The Dist Intercon Intercon Intercon Study Pr physical responsi Intercon Distribut estimate	S FOR INTERCON IDY INTERCONNE #Distribution Grou Waiver of the Inter s Study and move ent, Applicant must posts of all required ion Provider. Appl ed with Parallel Op n of the Distribution in E.4. Refer to Se- nes for completing ent. viii)DGS Phase	INECTION REV CTION REV Section Revealed and the section of the section of the section of the section of the section of the section of the section sect	REQUES VIEW PF cess (Co Facilities General riting to t emed ne- onsible f upport th mission for cost ra- tor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon actor Intercon facility of Intercon Facilities uest of th	STS (Cont'd.) ROCESS (Cont'd.) ROCESS (Cont'd.) Study. (Cont'd.	P	Formatted: Left, Numbered + Level: 1 + Numbering Style: i, ii, iii, + Start at: 8 + Alignment: Left + Aligned at: 0.9" + Indent at: 1.15" Formatted: Font: 12 pt Formatted: Font: 12 pt Formatted: Left, Indent: Left: 1.15"
maximiz	<b>Brian</b> Vice	he Commer		ration Dates of the	Continued) RAFT 2/19/2013	1 <u>3</u>

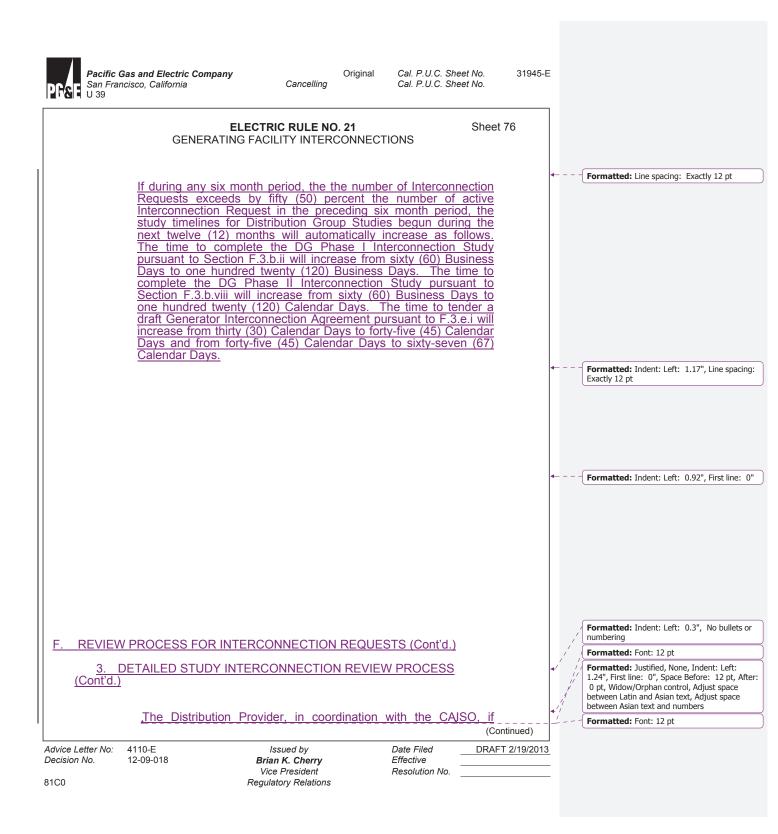
PGSE Pacific San Frai	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	t No. t No.	31942-E*
	ELEC GENERATING FA	<b>FRIC RULE NO</b> CILITY INTERC	. <b>21</b> CONNECTIO	ONS	Sheet 74	
					(Contin	ued)
Advice Letter No: Decision No.	4110-E 12-09-018 <b>B</b>	lssued by rian K. Cherry		Date Filed Effective	DRAFT 2/	19/2013
78C0		/ice President iulatory Relations		Resolution No.		
	109					

Pacific Gas and Electric Company San Francisco, California U 39	Oriç Cancelling	jinal Cal. P.U.C. She Cal. P.U.C. She		<u>11943</u> -E≛	
ELECT GENERATING FAC	<b>RIC RULE NO. 21</b> CILITY INTERCON	NECTIONS	Sheet 75		
F. REVIEW PROCESS FOR INTERC			(N) I n <u>t'd.)</u> I	<b>Formatted:</b> Font	: 12 pt, All caps
db. Independent Distribution G	roup Study Proce	ss (Conťd.)	(N)		
ix) DGS Phase II Interconn	ection Study Resu	Ilts Meeting		<b>Formatted:</b> Font	: 12 pt
If requested by an Ap	plicant in a Dist	ribution Study Gr	oup. a	Formatted: Font	: 12 pt
results meeting shall b	e held among [	Distribution Provide	er, the	Formatted: Font	
CAISO, if applicable, an DGS Phase II Intercor	a the Applicant to inection Study, in	alscuss the results	of the	Formatted: Font	:: 12 pt
final Commercial Opera	tion Date and ass	signed cost respon	sibility.	Formatted: Font	: 12 pt
Within five (5) Busine Provider shall contact A	ess Days of su Applicant to estat	<u>ch request, Distr</u> blish a date agreea	ibution able to	Formatted: Font	: 12 pt
Applicant, Distribution F	Provider and the	CAISO, if applicat	ole, for		
the results meeting. If A be completed within th	Applicant wants to	<u>have a meeting, i</u>	t must		
Phase II Interconnectio	n Study, unless i	mutually agreed up	bon by		
the Distribution Provider	and Applicant.				
x) Re-Evaluation of Distribution Interconnection Study	oution Upgrades	Following DGS Ph	ase II	Formatted: Font	: 12 pt
				Formatted: Font	:: 12 pt
If an assessment follow Interconnection Study	ing the issuance	<u>of the final DGS Pl</u> -evaluate an Appl	<u>icant's</u>		
required Distribution L	Jpgrades due to	o a project witho	Irawal,		
Distribution Provider sha re-evaluation shall take					
from the date of notice					
borne by the Applicant b	eing re-evaluated	<u>.</u>			
viiiix) Timing of the DGS	Phase II Interconr	nection Facilities St	udy.		
Distribution Provider sha	all tender a draft (	Senerator Interconr	ection		
Agreement pursuant to	F.3.e.i. Refer t	o Section F.3.e fo	or cost		
responsibility and time		mpleting the Ger	<u>ierator</u>		
Interconnection Agreem	<u>ent.</u>				
1				Formatted: Leve	el 4, Indent: Left: 0.9",
]					eep with next, Tab stops:
			(Continued)		)
Advice Letter No: 4110-E	Issued by	Date Filed	DRAFT 2/19/2013	3	
Decision No. 12-09-018 BI	rian K. Cherry	Effective		<u>-</u>	
•	lice President ulatory Relations	Resolution No.		-	

	ific Gas and Electric Company Francisco, California	Original Cancelling	Cal. P.U.C. Sh Cal. P.U.C. Sh		3-E	
		RIC RULE NO. 21 ILITY INTERCONNEC	CTIONS	Sheet 76		
. REV	IEW PROCESS FOR INTERCO	ONNECTION REQU	ESTS (Cont'd.)	(N)		
<u>∃</u> 3. D	ETAILED STUDY INTERCON	NECTION REVIEW	PROCESS (Co	nt'd.) I		
d	b. Independent Distribution Gr	oup_Study Process (	Cont'd.)			
	ix) Timing of the DGS Phas (Cont'd_)	e II Interconnection	Facilities Study			
	At any time Distribution the required time frame Facilities Study, Distribu the Distribution Study G Interconnection Facilitie completion date with an time is required.	for completing the Ir tion Provider shall n roup in writing as to s Study and provide	<u>iterconnection</u> otify each Appli the -status of th an estimated	cant in I le I		
	ix)viii) Timing of the Interco	onnection Facilities S	<del>tudy. (Cont'd.)</del>			
	Within thirty (30) Calendar D Interconnection Financia	<del>ays after <u>Second an</u> al Security</del>	d Third Posting	<u>s of</u>		
	Each Applicant in a Distr posting prior to 120 Cale DGS Phase II Interconne Interconnection Financia construction activities, as based on the cost respo Distribution Upgrades, a Facilities set forth in the Facilities Set forth in the Facilities Study, or the fin if the Interconnection Fa Section F.3.d.vii.	endar Days after pub ection Study report, a al Security on or before s set forth in Section nsibility for Network nd Distribution Provi- final DGS Phase II I nal Interconnection S	lication of the fi and third postin re the start of s F.4.c and F.4 Upgrades. der's Interconn nterconnection System Impact	<u>nal</u>   g <del>s of</del>   .d   ection     Study		
	vi) Withdrawal and Deallage	ation of Coat to Inter	connection Dec		<b>4</b>	Formatted: Line spacing: Exactly 12 pt
	xi) Withdrawal and Realloca in a Distribution Study G If at any time, an Inte Generator Interconnection	Broup Pronnection Reque	st is withdraw	 	•	<ul> <li>Formatted: Indent: Left: 0.92", Hanging:</li> <li>0.31", Line spacing: Exactly 12 pt, Numbered + Level: 1 + Numbering Style: i, ii, iii, + Start at: 11 + Alignment: Left + Aligned at: 1" + Indent at: 1.5"</li> </ul>
	identified in the Interco	onnection Studies v	will be revalua	ited to (N)		Formatted: Line spacing: Exactly 12 pt
	determine if they are s provides the final Inter Applicant, or determine conducted pursuant to s the Distribution Grou	erconnection Facilit es that a restudy i Section F.3.b.xii. A		<del>ort to</del> will be ified in		{ Formatted: Font color: Black
Advice Letter N Decision No. 79C0	12-09-018 <b>Bri</b> Vie	Issued by <b>an K. Cherry</b> ce President latory Relations	Date Filed Effective Resolution No.	September 20, 20 September 20, 20		

Pacific ( San Frai U 39	Gas and Electric Compar ncisco, California	<b>ny</b> Cancelling	Original	Cal. P.U.C. Sh Cal. P.U.C. Sh		31943-E
	GENERAT	ELECTRIC RULE NO		ONS	Sheet 76	\$
	withdrawing Ap	Financial Security t plicant, will be the be Distribution Grou E.4.e.	responsi	bility of ren	naining	
					(Contin	ued)
vice Letter No: cision No. C0	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.	September September	



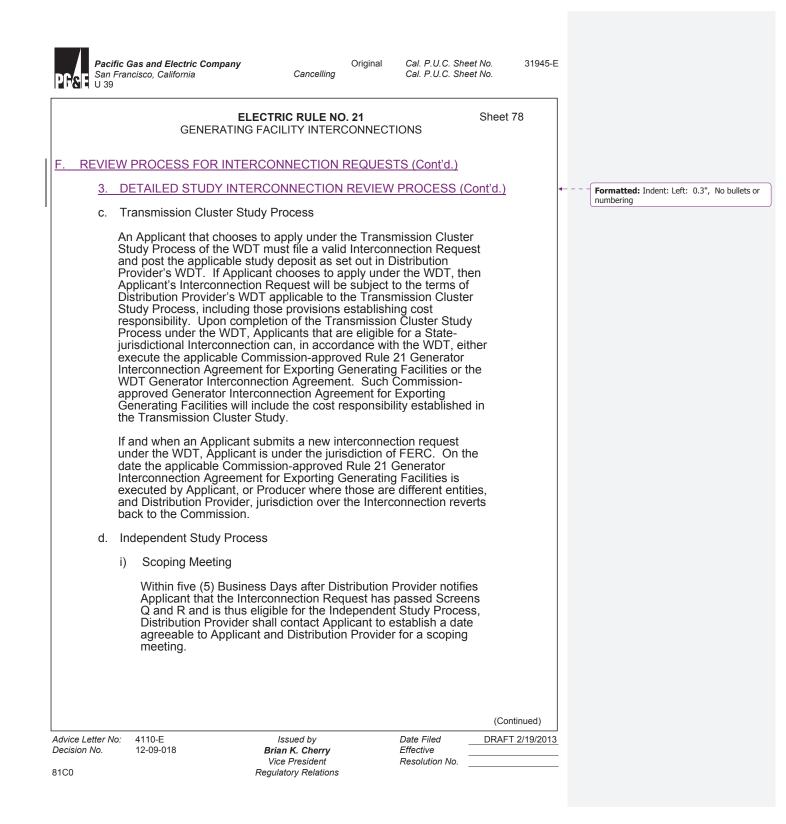


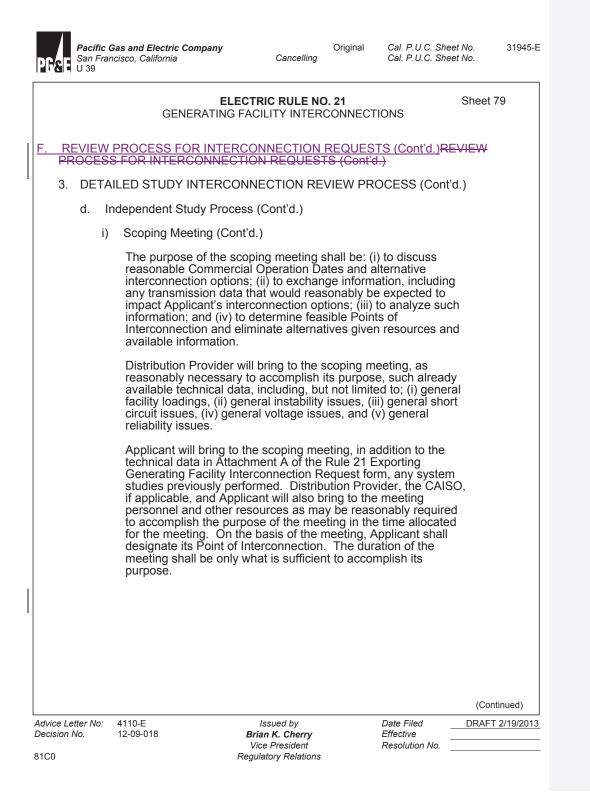
	<b>: Gas and Electric Compa</b> ancisco, California	ny Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31945-E		
	GENERA	ELECTRIC RULE NO		IONS	Sheet 7	76		
	is at or near potentially imp potential impace Affected Syste	all determine whether the boundary of an act such Affected Sys t is made, the Distrib m Operator(s) to the So ie and place of the so table.	Affected stem(s). ution Pro Scoping N	System(s) so If a determina vider shall inv deeting by info	as to tion of te the prming		ed: Font: 12 pt	
	Interconnection Study Group or meeting, or in t Phase II Interco (45) Calendar I	of a Distribution Grou Study report to each ii) the Interconnection he case of a Distribution nnection Study -but in Days after Distribution erconnection Study re	Applicant Facilitie on Group no even Provider	t in the Distributes Study resulter Study the DG t later than for	ty-five			
Advice Letter No. Decision No. 81C0	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.		tinued) 7 2/19/2013		

PG&E	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31945-E
	ELE GENERATING F	CTRIC RULE NO	. <b>21</b> CONNECTIO	ONS	Sheet 76	
					(Continu	ed)
Advice Let Decision N		lssued by Brian K. Cherry	1	Date Filed Effective	DRAFT 2/	19/2013
81C0	R	Vice President regulatory Relations		Resolution No.		-

PG&E	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Origina Cancelling	al Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.		
		TRIC RULE NO. 21 ACILITY INTERCONNE		leet 77	
	EVIEW PROCESS FOR INTERC DETAILED STUDY INTERCON dbIndependent-Distribution G xii) Restudy The Restudy report sha Applicant remaining in t	INECTION REVIEW F roup Study Process ( Il be completed and p he Distribution Study	PROCESS (Cont'd.) Cont'd.) rovided to each Group within thirty		<b>Formatted:</b> Font color: Black
	(30 <u>ninetysixty (690) Ca</u> Interconnection Facilitie requested,Request that remaining in the Distribution responsible for the cost	s Study results meetin caused the Restudy. Jation Study Provider s	<del>ng, if</del> The Applicants		Formatted: Font color: Black Formatted: Font color: Black Formatted: Font color: Black Formatted: Font color: Black
	<u>xiii) Automatic Timing Exter</u> If during any six month Requests exceeds by fi	period, the the numbe fty (50) percent the nu	umber of active	4	<ul> <li>Formatted: Indent: Left: 0.79", Hanging:</li> <li>0.38", Line spacing: Exactly 12 pt, Outline</li> <li>numbered + Level: 3 + Numbering Style: i, ii,</li> <li>iii, + Start at: 12 + Alignment: Left + Aligned</li> <li>at: 0.5" + Indent at: 0.75"</li> </ul>
	Interconnection Reques study timelines for Distr next twelve (12) months The time to complete th pursuant to Section F.3 Days to one hundred tw complete the DG Phase	ibution Group Studies will automatically inc e DG Phase I Intercon b.ii will increase from venty (120) Business I	begun during the rease as follows. nnection Study sixty (60) Business Days. The time to		Formatted: Line spacing: Exactly 12 pt Formatted: Indent: Left: 1.17", Right: 0.97", Space After: 0 pt, Widow/Orphan control, Don't allow hanging punctuation, Font Alignment: Baseline
	Section F.3.b.viii will inc one hundred twenty (12 draft Generator Interco together with draft apport Interconnection Facilitie F.3.e for cost responsib Generator Interconnect	crease from sixty (60) 0) Calendar Days. The nection Agreement produces, unless Applic s Study results meeting ility and time frames f	Business Days to he time to tender a ursuant to F.3.e.i- ant requests an ng. Refer to Section or completing the		Formatted: Font color: Black Formatted: Font color: Auto
	(30) Calendar Days to f forty-five (45) Calendar	Days to sixty-seven (	r Days and from 67) Calendar Days,		<b>Formatted:</b> Font color: Black
	c. Transmission Cluster Study	/ Process			
Advice Le Decision 81C0	No. 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President egulatory Relations	Date FiledDI Effective Resolution No	(Continued) RAFT 2/19/2013	

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31945-E
		ECTRIC RULE NO		ONS	Sheet 7	7
S S T T A	Applicant's Interconne tudied under the Trans hall have the option of ransmission Cluster St ariff in accordance with pplicant's Interconnect nder this Rule regardle nterconnection under th	mission Cluster Si applying for Interc udy Process of the tis provisions. If ion Request shall as of whether Apr	tudy Proce connection e Wholesa Applicant be deeme	ess, Applicant under the ale Distributior fails Screen ( ed withdrawn	ı	
					(O-: "	
Advice Letter No:	4110-E	lssued by		Date Filed	(Conti	nued) 2/19/2013
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by Brian K. Cherry		Effective	UKAFI	19/2013
81C0		Vice President Regulatory Relations		Resolution No.		



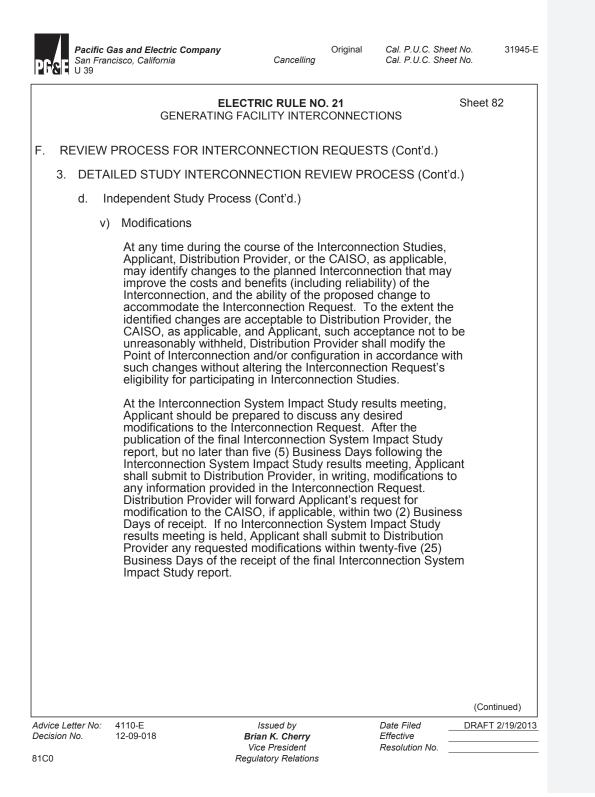


PG&E	0	a <b>s and Electric Company</b> cisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31945-E	
		ELEC GENERATING F/	TRIC RULE NO		IONS	Sheet 8	30	
<u>F. R</u>	EVIEW	PROCESS FOR INTERC	ONNECTION I	REQUES	<u>TS (Cont'd.)</u>		•	(Formatted: Indent: Left: 0"
<u>3.</u>		LED STUDY INTERCON		VIEW PR	OCESS (Cont'o	<u>d.)</u>		
	<u>d. In</u>	dependent Study Proces						
	<u>i)</u>	Scoping Meeting (Cont						
		Within fifteen (15) Busin Distribution Provider sh <u>Study Agreement with p</u> Process Study Agreem scope of the Interconne Interconnection Facilitie estimate of the cost to p that Applicant is respon Interconnection Studies costs.	all provide App provisions for a ent, which shal ction System I is Study, conta perform such si sible for the ac	licant with <u>n</u> Indeper I contain a mpact Stu in a non-t tudies, an ctual cost o	n an <u>Detailed</u> ndent Study an outline of the udy and binding good fa d shall specify of the			
F. R	EVIEW	PROCESS FOR INTERC	ONNECTION	REQUES <sup>.</sup>	<del>TS (Cont'd.)</del>			
3	DETA	LED STUDY INTERCON	NECTION RE		OCESS (Cont'o	<del>1.)</del>		
	d. In	dependent Study Proces	<del>s (Cont'd.)</del>					
	<del>i)</del>	Scoping Meeting (Cont	<del>d.)</del>					
		Applicant shall execute Independent Study Pro (30) Business Days afte Interconnection Reques	cess Study Agr	reement n meeting, c	o later than thi	rty		
	ii)	Timing of the Interconn	ection System	Impact St	udy Results.			
		Absent extraordinary ci complete and issue a fi report within sixty (60) I Independent Study Pro Impact Study indicates Distribution Provider wi CAISO for review and co into the final Interconne	nal Interconnec Business Days cess Study Agi a need for Net I share applica omment and w	ction Syste after the reement. work Upgi ble study vill incorpo	em Impact Stud execution of ar If the System rades, results with the prate comments	dy 1		
		At any time Distribution the required time frame System Impact Study, I	for completing	the Inter	connection	int	tinued)	
Advice Le Decision I		4110-E 12-09-018	lssued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT	2/19/2013	
81C0		Re	gulatory Relations					

Pacific O San Fran U 39	Gas and Electric Company acisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		LECTRIC RULE NO G FACILITY INTERO		IONS	Sheet 80
	in writing as to the Study and provide a explanation of the r	status of the Interc an estimated comp easons why additio	connection letion dat onal time	n System Impa e with an is required.	ct
					(01)
		1 11		Dete File I	(Continued)
vice Letter No: cision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed	DRAFT 2/19/2013
20		Vice President Regulatory Relations		Resolution No.	

PG®	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31945-E	
		ECTRIC RULE NO. FACILITY INTERC		IONS	Sheet	81	
	REVIEW PROCESS FOR INTER         3. DETAILED STUDY INTERCO         d. Independent Study Proc         ii) Scoping Meeting (Co         Upon request, Distribute relevant supporting of Interconnection Requepower flow, short circo planned Distribution Request for the Interomay be required to si consistent with Section         iii) Interconnection System	DNNECTION REV ess (Cont'd.) nt'd.) ution Provider sha ocumentation, wo lest and post-Inter uit and stability da Jpgrades relevant connection System gn a non-disclosu on D.7 regarding C	All provid rkpapers rconnecti atabases t to the Ir n Impact Confident	e Applicant all and pre- ion Request , and currently neterconnection Study. Applica ment with terms tiality.	ant	*	 Formatted: Indent: Left: 0"  Formatted: Numbered + Level: 1 + Numbering Style: i, ii, iii, + Start at: 3 + Alignment: Left + Aligned at: 0.9" + Indent at: 1.15"
F	REVIEW PROCESS FOR INTER B. DETAILED STUDY INTERCO d. Independent Study Proc iii) Interconnection Syst If requested by <u>-an</u> A among Distribution P Applicant to discuss the System Impact Study Within five (5) Busine Provider shall contact Applicant, Distribution the results meeting.	DNNECTION REV ess (Cont'd.) em Impact Study I pplicant, a results rovider, the CAISC he results of the li y, including assign tss Days of <u>thesuc</u> t Applicant to esta	Results I meeting D, if appl nterconn ed cost r <del>h</del> reques	OCESS (Cont'on Meeting. shall be held icable, and ection <u>Facilities</u> esponsibility. st, Distribution ate agreeable t	<u>3</u> :0		
Advice Decisio 81C0	Letter No: 4110-E n No. 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.		tinued)	

	Gas and Electric Compan ncisco, California	<b>y</b> Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
	GENERAT	ELECTRIC RULE NO			Sheet 81
iv	<ul> <li>Initial Posting of I</li> </ul>	nterconnection Fina	ncial Secu	urity.	
	Financial Security Section F.4.b, with provided with the report, or its Intero withdrawn. The ir Security will be ba Upgrades, Distribu	ake its initial posting in accordance with hin sixty (60) Calend final Interconnection connection Request hitial posting of Inter- ased on the cost res ution Upgrades, and acilities set forth in the udy report.	the requir ar Days a System I shall be c connection consibility Distributi	ements of ifter being mpact Study leemed n Financial for Network on Provider's	
					(Continued)
vice Letter No: cision No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed	DRAFT 2/19/2013
C0		Regulatory Relations			



	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		LECTRIC RULE NO G FACILITY INTERC		ONS	Sheet 83
. REVIEW	PROCESS FOR INTE	ERCONNECTION F	REQUEST	S (Cont'd.)	
3. DETA	AILED STUDY INTERC	CONNECTION REV	IEW PRO	CESS (Cont'c	l.)
d. I	ndependent Study Pro	cess (Cont'd.)			
v	) Modifications (Cont	'd)			
	specifically: (a) a de proposed Generatir parameters associa the Generating Fac characteristics; and configuration. Distr if applicable, will ev the Interconnection Distribution Provide modifications would Business Days of re modification. Any of for that specified by Study or otherwise constitute a Materia If the proposed mod Modification, Applic modification or pro- such modification. within ten (10) Busin Modification determ	ng Facility; (b) modi ited with the Gener- ility step-up transfo (c) modifying the ir ibution Provider, in aluate whether the Request constitute r will inform Applica constitute a Mater eceipt of the propos thange to the Point Distribution Provid allowed under this il Modification. dification is determinant may either with eed with a new Intra Applicant shall make ination results.	fying the te ating Facili rmer imper- nterconnect coordinati proposed i s a Materia ant in writir ial Modifica ed reques of Intercor er in an In Section F.3 ned to be a draw the p proonnective e such de ng provide	echnical ity technology dance stion on with CAISC modification to al Modification og whether the ation within 10 t for nection, exce terconnection 3.d.v, shall a Material proposed on Request fo termination ad the Material	D, b. b pt r
	Modifications may s System Impact Stud Interconnection Fac Provider will provide the re-evaluation ar complete the re-eva additional time and the proposed modifi Interconnection Ree make such determin being provided the I	till necessitate the dy to determine mo- ilities and Distributi e Applicant an estin duation. Applicant cost to complete th ication request, or p quest for such modi- nation within ten (10	need to re- difications on Upgrad hate of time cremental may either e re-evalua proceed wi fication. A 0) Busines	evaluate the to the les. Distribution cost required accept the ation, withdraw th a new opplicant shall	to
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
31C0		Vice President Regulatory Relations	I	Resolution No.	

PG			Gas and Electric Compa acisco, California	any Cancelling	Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
			GENERA	ELECTRIC RULE NO		IONS	Sheet 84
=.	REV	IEW	PROCESS FOR I	NTERCONNECTION	REQUES	TS (Cont'd.)	
	3. C	DETA	ILED STUDY INTE	ERCONNECTION RE		OCESS (Cont'd	.)
	d	l. Iı	ndependent Study	Process (Cont'd.)			
		vij	) Scope and Purp	ose of the Interconne	ection Faci	lities Study and	Study Deposit.
			meeting, or (ii) w receipt of the fin- no Interconnecti Applicant shall s by Distribution P MW or less, App deposit, as set o	ive (5) Business Day vithin twenty-five (25) al Interconnection Sy on System Impact St ubmit to Distribution rovider. At that time, vicant shall also subr out in Section E.3.a, u accordance with Sec	Business stem Impa udy results Provider th , for Gener nit the Fac inless the F	Days of the loct Study report meeting is held the data required ating Facilities study Facilities Study	d,
		vii	) Waiver of the In	terconnection Facilitie	es Study		
			Applicant mutual Calendar Days a Interconnection 3 Interconnection 3 Provider shall ter Agreement, toge to Section F.3.e completing the G Applicant choose to a Generator Ir in writing to be re facilities deemed responsible for a support the safe Transmission Sy Section F.3.e for	udy may be waived if ily agree to such waiv fiter Distribution Prov System Impact Study Facilities Study result nder a draft Generato ther with draft appen for cost responsibility Generator Interconnec es to forgo the Faciliti neterconnection Agree esponsible for all act. I necessary by Distriti and reliable operatio restem as set forth in S cost responsibility a Generator Interconnection Patters and the set for the set and reliable operation restem as set for the set cost responsibility a	ver. Within ider provid report to A to meeting, or Interconu dices, to A r and time f ction Agree ies Study a ment, App ual costs of pution Prov ith Parallel n of the Di Section E.4 nd time fra	a thirty (30) les the final Applicant (if the , Distribution nection ,pplicant. Refer frames for ement If and move direct licant must agree f all required vider. Applicant I Operation to stribution and L. Refer to mes for	ly ee
							(Continued)
	e Letter ion No.		4110-E 12-09-018	Issued by Brian K. Cherry Vice President		Date Filed Effective	DRAFT 2/19/2013
31C0				Vice President Regulatory Relations		Resolution No.	

<text><text><text><text><text><text><text></text></text></text></text></text></text></text>	
<text><list-item><list-item><section-header><text><text><text><text></text></text></text></text></section-header></list-item></list-item></text>	FT 2/19/2013
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) ( Independent Study Process (Cont'd.) viii) Timing of the Interconnection Facilities Study. The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4. by where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities and/or he Interconnection Facilities Study deposit. If applicable, Distribution Provider will share the applicable study results with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit. If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report to Applicant. Within thirty (30) Calendar Days after Distribution Provider provides the final Interconnection Facilities Study report to Applicant, or within thirty (30) Calendar Days of an Interconnection Agreement, logether with draft appendices, unless Applicant requests an Interconnection Facilities Study results meeting. Refer to Section F.3.e for cost responsibility and time frames for completing the Generator Interconnection	Continued)
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) (. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities and/or erconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit. If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a final Interconnection Facilities Study report to Applicant. Within thirty (30) Calendar Days after Distribution Provider provides the final Interconnection Facilities Study report to Applicant, or within thirty (30) Calendar Days of an Interconnection Facilities Study results meeting, if requested, Distribution Provider shall tender a draft Generator Interconnection	
<ul> <li>GENERATING FACILITY INTERCONNECTIONS</li> <li>REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)</li> <li>DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.)</li> <li>Independent Study Process (Cont'd.)</li> <li>viii) Timing of the Interconnection Facilities Study.</li> <li>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit.</li> <li>If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a final Interconnection Facilities Study report to Applicant.</li> <li>Within thirty (30) Calendar Days after Distribution Provider provides the final Interconnection Facilities Study report to Applicant, or within thirty (30) Calendar Days of an Interconnection Facilities Study results meeting, if requested, D</li></ul>	
<ul> <li>GENERATING FACILITY INTERCONNECTIONS</li> <li>REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)</li> <li>DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.)</li> <li>Independent Study Process (Cont'd.)</li> <li>viii) Timing of the Interconnection Facilities Study.</li> <li>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4. b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities and initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Study for Study and the required facilities and for Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit.</li> <li>If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a final Interconnection Facilities Study report to Applicant.</li> <li>Within thirty (30) Calendar Days after Distribution Provider provides the final Interconnection Facilities Study report to Applicant, or within thirty (30) Calendar Days of an</li> </ul>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii) Timing of the Interconnection Facilities Study.</u> The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities are limited to Distribution Provider's Interconnection Facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit. If applicable, Distribution Provider's Interconnection Facilities actives with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit. If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a final Interconnection Facilities Study report to Applicant.	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii) Timing of the Interconnection Facilities Study.</u> <u>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit.</u> If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will incorporate CAISO comments, if any, into the study report prior to issuing a final Interconnection Facilities Study report to	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. <u>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities and/or Network Upgrades are identified and the required facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study deposit. If applicable, Distribution Provider will share the applicable study results with the CAISO for review and comment, and will</u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> <u>Timing of the Interconnection Facilities Study.</u> <u>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades are limited to Distribution Provider's Interconnection Facilities and/or Network Upgrades are identified and the required facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed </u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. <u>The Interconnection Facilities Study shall be completed and provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades are limited to Distribution Provider's Interconnection Facilities only, the Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Facilities Study shall be completed within forty-five (45) Business Days after Applicant posts the initial Interconnection Financial Security and, for Generating</u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. <u>The Interconnection Facilities Study shall be completed and</u> provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades and/or Network Upgrades are identified and the required facilities are limited to Distribution Provider's Interconnection Facilities only, the Interconnection Facilities Study shall be completed	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. <u>The Interconnection Facilities Study shall be completed and</u> provided to Applicant within sixty (60) Business Days after Applicant posts the initial Interconnection Financial Security in accordance with Section F.4.b where Distribution Upgrades or Network Upgrades are identified and, for Generating Facilities with a Gross Nameplate Rating of 5 MW or less, Applicant submits the Facilities Study deposit in accordance with Section E.3.a and F.3.d.vi. In cases where no Distribution Upgrades	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> <u>Timing of the Interconnection Facilities Study.</u> <u>The Interconnection Facilities Study shall be completed and</u> <u>provided to Applicant within sixty (60) Business Days after</u> <u>Applicant posts the initial Interconnection Financial Security in</u> <u>accordance with Section F.4.b where Distribution Upgrades or</u> <u>Network Upgrades are identified and, for Generating Facilities</u> <u>with a Gross Nameplate Rating of 5 MW or less, Applicant</u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii)</u> Timing of the Interconnection Facilities Study. <u>The Interconnection Facilities Study shall be completed and</u> <u>provided to Applicant within sixty (60) Business Days after</u> <u>Applicant posts the initial Interconnection Financial Security in</u> <u>accordance with Section F.4.b where Distribution Upgrades or</u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.) <u>viii) Timing of the Interconnection Facilities Study.</u> <u>The Interconnection Facilities Study shall be completed and</u>	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.) d. Independent Study Process (Cont'd.)	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 3. DETAILED STUDY INTERCONNECTION REVIEW PROCESS (Cont'd.)	
GENERATING FACILITY INTERCONNECTIONS REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.)	
GENERATING FACILITY INTERCONNECTIONS	
	et 85
Pacific Gas and Electric Company       Original       Cal. P.U.C. Sheet No.         San Francisco, California       Cancelling       Cal. P.U.C. Sheet No.         U 39       U 39       U 39	31945-E

Pacific Gas and Electric Company San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
ELEC GENERATING F/	CTRIC RULE NO. ACILITY INTERC			Sheet 86
F. REVIEW PROCESS FOR INTERC		EQUEST	<u>S (Cont'd.)</u>	
3. DETAILED STUDY INTERCON	INECTION REV	IEW PRC	CESS (Cont'd	.)
d. Independent Study Proces	<u>s (Cont'd.)</u>			
viii) Timing of the Interconr	nection Facilities	Study.		
At any time Distribution the required time frame Facilities Study, Distribution writing as to the status and provide an estimate the reasons why addition	e for completing ution Provider sl of the Interconr ed completion d	the Interc nall notify nection Fa ate with a	onnection Applicant in acilities Study	
ix) Interconnection Facilitie	es Study Results	Meeting.	<u>.</u>	
If requested by Applica Distribution Provider, the discuss the results of the including assigned cos Days of the request, Di to establish a date agree and the CAISO, if appli	he CAISO, if app he Interconnecti t responsibility. istribution Provid eeable to Applic	olicable, a on Faciliti Within fiv der shall c ant, Distri	nd Applicant to es Study, e (5) Business contact Applicar bution Provider	nt
Within thirty (30) Calen Facilities Study results tender a draft Generate with draft appendices, cost responsibility and Interconnection Agreer	meeting, Distrib or Interconnection to Applicant. Re time frames for	oution Pro on Agreen fer to Sec	<u>vider shall</u> nent, together stion F.3.e for	÷
x) Second and Third Post	tings of Intercon	nection Fi	nancial Securit	Y
Applicant will post its s Interconnection Financ and F.4.d based on the Upgrades, Distribution Interconnection Facilitie Facilities Study, or the Study if the Interconne accordance with Section	ial Security as s cost responsib Upgrades, and es set forth in th final Interconne ction Facilities S	et forth in ility for Ne Distributic e final Inte ction Syst	<u>Sections F.4.c</u> etwork on Provider's erconnection em Impact	
				(Continued)
	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT 2/19/2013
81C0 Re	egulatory Relations			

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
		ECTRIC RULE NO			Sheet 87
F. REVIEW	PROCESS FOR INTE	RCONNECTION	REQUES	TS (Conťd.)	
<u>3. DETA</u>	ALED STUDY INTERC	ONNECTION REV	IEW PR	OCESS (Cont'd.)	
<u>e.</u> G	enerator Interconnection	on Agreement			
<u>i)</u>	Tender				
	The Distribution Prov Interconnection Agree within thirty (30) Cale	ement, together w	vith draft	appendices,	
	i) Provision of the fin results meeting, if he	nal Interconnection eld) to Applicant,	n Facilitie	s Study report (or	-
	ii) Provision of the fir report (or results me			Impact Study	
	iii) Provision of the fi report to each Applic results meeting, if he	ant in the Distribu	Interconn tion Stud	<u>ection Study</u> y Group (or	
	Applicant(s) shall pr comments, to the dra Days.				
					(Continued)
dvice Letter No: ecision No.	4110-Е 12-09-018	Issued by Brian K. Cherry		Effective	DRAFT 2/19/2013
1C0		Vice President Regulatory Relations		Resolution No.	

		<b>Gas and Electric C</b> cisco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31945-E
		GEN	ELECTF ERATING FAC	RIC RULE NO		IONS	Sheet 8	38
F. RE 73.	DET	AILED STUDY Generator Inte ) Negotiation <u>Notwithsta</u> <u>Distribution</u> <u>concerning</u> <u>Agreemen</u> <u>Applicant v</u> final Interc Interconne <u>Interconne</u> <u>Study Proc</u> <u>concerning</u> <u>Generator</u> (90) Calen with the fin <u>case of the</u> <u>Interconne</u> <u>System Im</u> is waived) <u>Producers</u> <u>Distribution</u> <u>upgrades t</u> <u>accordanc</u> <u>be comple</u> <u>requests</u> . <u>Parallel Op</u>	nding Section Provider sha the appendic tat any time a with the final Ir onnection Sys ction Facilities ction Study re- cess. Distributed Interconnection dar Days after al DGS Phase bistribution C ction Facilities pact Study rep in the case of whose Intercon Group Study riggered by m e with a paymited in time for Producer is re- peration to sup System and	F.3.e.i, at the I begin negress to the Ge fter Distribution tern Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact tem Impact provisions of a Study is wa provisions of the Intercome Torup Study a Study report the Independent the	EVIEW PF Cont'd.) te request otiations we merator In tion Provice on Facilitie Study reprised Study reprised Study reprised Study reprised Study reprised Study reprised Study reprised to not r Process of the appendice of the a	of Applicant, <u>vith Applicant</u> <u>terconnection</u> <u>terconnection</u> <u>terconnection</u> <u>terconnection</u> <u>terconnection</u> <u>ter provides</u> <u>s Study repor</u> ort if the nal DGS Phas <u>Distribution G</u> <u>icant shall neg</u> <u>endices to the</u> <u>nore than nine</u> <u>provides Appl</u> <u>udy report in the</u> <u>interconnection</u> <u>icant shall neg</u> <u>to final</u> <u>Interconnection</u> <u>icon Facilities S</u> <u>y Process</u> . <u>re studied in a</u> <u>red to fund</u> <u>nection Reque</u> <u>vs such upgra</u> <u>uch Interconnec</u> <u>associated w</u> <u>able operation</u>	t (or se II proup gotiate draft ety icant ne Study a <u>est in</u> des to ection ith of the	(N)                         
Advice Lette Decision No 81C0		4110-E 12-09-018	<b>Bria</b> Vio	Issued by an K. Cherry ce President latory Relations		Date Filed Effective Resolution No.		2/19/2013

P	Pacial San U 39	fic Gas and Electric Comp Francisco, California	any ( Cancelling	Original Cal. P.U.C. Cal. P.U.C.	
		GENERA	ELECTRIC RULE NO. 3 TING FACILITY INTERCO		Sheet 89
F	. REVIE	W PROCESS FOR I	NTERCONNECTION R	EQUESTS (Cont'd.)	)
	3. DE	TAILED STUDY INT	ERCONNECTION REVI	EW PROCESS (Co	ont'd.)
	e.	Generator Interconr	nection Agreement (Cont	ťd.)	
		ii) Negotiation (Co	nt'd.)		
		it may request t tender of the dra pursuant to Sec procedures purs the Parties, if A entities, has not Agreement, or i to Section K, wi the final <u>DGS P</u> <u>of the Distribution</u> Facilities Study Study report if the case of the to have withdraw Provider shall p Interconnection	determines that negotial ermination of the negotial aft Generator Interconne- tion F.3.e.i and initiate D suant to Section K. Unle- oplicant or Producer, wh executed the Generator nitiated Dispute Resoluti thin ninety (90) Calendai hase II Interconnection S on Group Study Process report (or final Interconne ne Interconnection Facili Independent Study Proc wn its Interconnection Re- rovide to Producer a final Agreement within fifteer etion of the negotiation p	ations at any time a action Agreement Dispute Resolution ere those are differ- on procedures purs r Days after issuand Study report in the con- or Interconnection lection System Impa- tites Study is waived ess, it shall be deer equest. Distribution al Generator n (15) Business Day	fter ed by ent suant ce of <u>case</u> act d <u>) in</u> med
		iii) Extensions of C	commercial Operation Da	ate.	
		upon in the exer Reasonable Con the Interconnect System Impact waived. Intercon Process will not beyond the cont Commercial Op Agreement is op producer is still and Network Up Interconnection schedule agreed	The Commercial Operation cuted Generator Intercommercial Operation Date tion Facilities Study results Study results meeting if it nection Requests under be granted extensions of rol of Producer. A reque eration date after the Generator responsible for funding a orgades as specified in the Agreement and under the d upon in the Generator is provision has no impa- ment terms.	nection Agreement es will be discussed lts meeting or the the Facilities Study or the Independent { except in circumstar est for an extension nerator Interconnect o provided that, the ant Distribution Upg ne Generator ne same payment Interconnection	t. I at Is <del>Study nees of</del> <u>ction</u>
Ar	lvice Letter N	ю: 4110-Е	Issued by	Date Filed	(Continued) DRAFT 2/19/2013
De	ecision No.	12-09-018	Brian K. Cherry Vice President	Effective Resolution No	
82	C0		Regulatory Relations		

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31946-E*
		ECTRIC RULE NO FACILITY INTERC		IONS	Sheet	90
33. DET f. i i i i i i	GENERATING W PROCESS FOR INTEL AILED STUDY INTERCO Engineering & Procurem Prior to executing a Gene advance the implemental request, and Distribution authorizes Distribution Pro- folong lead-time items no nterconnection. Howeve to offer an E&P Agreeme result of an allegation that or comply with any prereo The E&P Agreement is a shall provide for Applican Applicant and to make ac security for such costs.	RCONNECTION ONNECTION RE ent (E&P) Agree tion of its intercon Provider shall of rovider to begin e ecessary for the ecessary for the ent if Applicant is at Applicant has fa quisites specified n optional proceed to pay the cost	REQUES WIEW PF ment ction Agro nection, fer, an E8 ingineerin establishr ovider sh in Dispute ailed to m in other dure. The of all acti	STS (Cont'd.) ROCESS (Cont an Applicant m P Agreement of and procure ment of the all not be oblig e Resolution as beet any milest parts of this Ru e & P Agreement vities authorized	er to hay that ment ated s a ones ule. ent ed by actory	(N)                         
Advice Letter No: Decision No. 82C0	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.	DRAFT	2/19/2013

P	F&E		: Gas and Electric Com ancisco, California	<b>npany</b> Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31947-Е														
			GENER	ELECTRIC RULE N ATING FACILITY INTER		TIONS	Sheet 91															
	F. R	REVIE	W PROCESS FO	R INTERCONNECTIO	N REQUE	STS (Cont'd.)		(N)														
3	3.	DE	TAILED STUDY IN	NTERCONNECTION F	REVIEW P	ROCESS (Con	ťd.)	1														
		f.	Engineering & Pr	ocurement (E&P) Agre	ement (Co	onťd.)																
			cancellation costs interconnection, w whether or not su Applicant withdray Distribution Provide equipment ordere Applicant shall be To the extent that Distribution Provide which event Distri- paid by Applicant of such equipment to Applicant, in whote	y the cost of such auth for equipment that is which cannot be mitigat ch items or equipment ws its Interconnection der terminates the E&F d can be canceled und obligated to pay the a the equipment cannot der may elect: (i) to tak bution Provider shall n for such equipment ar t, or (ii) to transfer title nich event Applicant sh ry of such equipment.	already ord ted as here later beco Request, c Agreeme der reason issociated t be reasor ke title to th efund App nd shall pa to and de	dered for its eafter describer me unnecessa or either Applica nt, to the exten able terms, cancellation co nably canceled, ne equipment, i licant any amou y the cost of de liver such equip	d, iry. If ant or it the osts. n unts elivery oment															
	4.	INT	ERCONNECTION	I FINANCIAL SECURI	TY																	
		a.	Types of Intercon	nection Financial Secu	urity.																	
			any combination of	on Financial Security p of the following types o in favor of Distribution	of Interconr	an Applicant manection Financia	ay be al															
			or financial in	e and unconditional let stitution that has a cre l Poor's or A2 or better	dit rating c	of A or better by																
			(b) an uncondition that has a created or better by N	nal and irrevocable gu edit rating of A or bette /loody's;	aranty issi r by Stand	ued by a compa ard and Poor's	or A2	   (N)														
			in an interest	sit standing to the cred -bearing escrow accou tution that is reasonab	unt maintai	ned at a bank of	or	<b>هــ</b> -	<b>Formatted:</b> In 0.31"	ndent: Left:	C	0.9	0.9	0.92	0.92"	0.92",	0.92", H	0.92", H	0.92", Ha	0.92", Ha	0.92", Har	0.92", Han
							(Contin	ued)														
De	lvice Le ecision I C0	tter No: No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations	_	Date Filed Effective Resolution No.	DRAFT 2/															

	c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
		ECTRIC RULE NO FACILITY INTER			sheet 92
F. REVIE	W PROCESS FOR INTE	RCONNECTION	REQUES	STS (Cont'd.)	(N)
4. INTER	CONNECTION FINANCIA	AL SECURITY (C	Cont'd.)		
<u>a.</u>	Types of Interconnection	n Financial Secu	rity (Cont'o	<u>d.</u> )	i
	Interconnection Financia in such form as Distribut to time by notice to Appli evaluated and approved Provider.	ion Provider may icants, or in such	reasonat	oly require from tin m as has been	
	Distribution Provider sha Interconnection Financia any time the guarantor o maintain the credit rating provide to Distribution Pr Security meeting the req Business Days of the ch	I Security to the f the Interconnec g required by this rovider replacem uirements of this	greatest e tion Finar Section F ent Interco Section F	xtent possible. If ncial Security fails .4.a, Applicant sh onnection Financi	sto I nall I ial I
	Interest on a cash depose Provider in an interest-be this Section F.4.a will ac	earing escrow ac	count und	ler subpart (d) of	
b.	Initial Posting of Intercor	nnection Financia	al Security		i
	On or before sixty (60) C Interconnection System notice to Distribution Pro Security instruments.	Impact Study rep	ort, Applic	cant must post, w	
	First, Applicant proposing shall post an Interconned amount equal to the less responsibility assigned to Impact Study <u>or final DG</u> <u>of the Distribution Group</u> \$20,000 per MW of elect the amount of megawatt existing Generating Faci Request, including any m \$7,500,000.	Ction Financial Se ser of (i) fifteen pe o Applicant in the <u>iS Phase I Interco</u> <u>Study Process f</u> trical output of the increase in the o lity as listed by A	ecurity ins ercent (15 final Inter onnection or Networ e Large G generating pplicant ir	trument in an %) of the total co cconnection Syste <u>Study in the case</u> k Upgrades, (ii) enerating Facility capacity of each its Interconnecti	(N) st em 2 r or
					(Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by <b>Brian K. Cherry</b> Vice President		Date Filed	DRAFT 2/19/2013
84C0		Regulatory Relations			

ELECTRIC RULE NO. 21         Sheet 93         CENERATING FACILITY INTERCONNECTIONS         F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Contd.)       (N)		<b>ific Gas and Electric Company</b> Francisco, California )	Cancelling	Original	Cal. P.U.C. Sheet No Cal. P.U.C. Sheet No		
2       4. INTERCONNECTION FINANCIAL SECURITY (Cont'd.)         b. Initial Posting of Interconnection Financial Security (Cont'd.)         Applicant proposing to interconnect a Small Generating Facility shall post an Interconnection Financial Security instrument in an amount equal to the lesser of (i) fittee percent (15%) of the total cost responsibility assigned to Applicant in the final Interconnection System Impact Study or final DSS Phase I Interconnection System Study in the case of the Distribution Group Study Process for Network Upgrades, or (ii) \$20,000 per NW of electrical upput of the Small Generating Facility or the amount of megavati increase in the generating capacity of each existing Generating Facility as listed by Applicant in the Interconnection Request.         Second, Applicant shall also post an Interconnection Financial Security instrument in the amount of Wenty percent (20%) of the total upput of the sisted by Applicant in the final interconnection Study Incoses for Distribution Provider's Interconnection Flancial Security instrument in the amount of Wenty percent (20%) of the total upput of the sisted by Applicant in the final interconnection Study Picess for Distribution Provider's Interconnection Flancial Security required by this Section F.4. Shall result in the Interconnection Flancial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written no					•	neet 93	
b.       Initial Posting of Interconnection Financial Security (Cont'd.)         Applicant proposing to interconnect a Small Generating Facility shall post an Interconnection Financial Security instrument in an amount equal to the tesser of (i) fifteen percent (15%) of the total cost responsibility assigned to Applicant in the final Interconnection System Impact Study or final DGS Phase I Interconnection System Susting Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as issued by Applicant in its Interconnection Request.         Second, Applicant shall also post an Interconnection Financial Security instrument in the amount of twenty percent (20%) of the total estimated cost responsibility assigned to Applicant in the final Interconnection System Impact Study Disc Phase I Interconnection Financial Security instrument in the amount of Wenty percent (20%) of the total estimated cost responsibility assigned to Applicant in the final Interconnection System Impact Study Disc Phase I Interconnection Financial Security instrument in the amount of Wenty percent (20%) of the total estimated cost responsibility assigned to Applicant in the final Interconnection Request being deemed withdrawn subject to Section F.6.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting. <td>F. REV</td> <td>IEW PROCESS FOR INTE</td> <td>RCONNECTION</td> <td>REQUE</td> <td>STS (Cont'd.)</td> <td>(N)</td> <td></td>	F. REV	IEW PROCESS FOR INTE	RCONNECTION	REQUE	STS (Cont'd.)	(N)	
Applicant proposing to interconnect a Small Generating Facility shall post an Interconnection Financial Security instrument in an amount equal to the lesser of (i) fifteen percent (15%) of the total cost responsibility assigned to Applicant in the final Interconnection System Impact Study or final DGS Phase I Interconnection System instrument in the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by Applicant in its Interconnection Request.         Second, Applicant shall also post an Interconnection Financial Security instrument in the amount of twenty percent (20%) of the total cost exponsibility assigned to Applicant in the final Interconnection Subtem Interconnection System Interconnection System Interconnection System Interconnection System Interconnection System Interconnection System Interconnection Study in the case of the Distribution Group Study Process for Distribution Provider's Interconnection Financial Security no Interconnection Request.         Second, Applicant to timely post the Interconnection Financial Security instrument in the amount of twenty percent (20%) of the total cost exponsibility assigned to Applicant in the final Interconnection Subdy in the case of the Distribution Group Study Process for Distribution Dygrades.         The failure by an Applicant to timely post the Interconnection Financial Security no later than the applicable final day for posting. <ul> <li>Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.</li> <li>Moter the applicable final day for posting.</li> </ul> <ul> <li>(N)</li> <li>(N)</li> <li>(N)</li> <li>(N)</li> <li>(N)</li></ul>	<u>)</u> 4. If	NTERCONNECTION FINAL	ICIAL SECURIT	Y (Cont'd	.)	i	
post an Interconnection Financial Security instrument in an amount responsibility assigned to Applicant in the final Interconnection System Impact Study or final DGS Phase I Interconnection Study in the case of the Distribution Group Study Process for Network Upgrades, or (ii) \$20,000 per MW of electrical output of the Small Generating Facility or the amount of megawatt increase in the generating capacity of each existing Generating Facility as listed by Applicant in its Interconnection Request.         Second, Applicant shall also post an Interconnection Financial Security instrument in the amount of twenty percent (20%) of the total estimated cost responsibility assigned to Applicant in the final Interconnection System Impact Study DGS Phase I Interconnection Upgrades.         The failure by an Applicant to timely post the Interconnection Financial Security required by this Section F.4.b shall result in the Interconnection Request being deemed withdrawn subject to Section F.6.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.         (N)         Advice Letter No:       110°. Lett         Vice President than the applicable final day for posting.         Vice President       Effective Effective Meesidion No.	b	. Initial Posting of Intercor	nection Financia	al Security	(Cont'd.)	Ì	
Advice Letter No:       4110-E       Issued by       Issued by       Date Filed       Iter in the ind index in the ind index index in the ind interconnection System Impact Study DGS Phase I Interconnection       Iter index inde		post an Interconnection I equal to the lesser of (i) responsibility assigned to Impact Study <u>or final DC</u> of the Distribution Group \$20,000 per MW of elect the amount of megawatt existing Generating Facil	Financial Security ifteen percent (1 ) Applicant in the <u>iS Phase I Interc</u> Study Process f rical output of the increase in the o	y instrume 5%) of the final Inte connection or Networ e Small G generating	ent in an amount e total cost rconnection Syster <u>1 Study in the case</u> k Upgrades, or (ii) enerating Facility of g capacity of each	2             	
Security required by this Section F.4.b shall result in the Interconnection Request being deemed withdrawn subject to Section F.6.       I         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.       I         Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.       I         Maximum distribution the applicable final day for posting.       I       I         Maximum distribution the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I         It has the applicable final day for posting.       I       I </td <td></td> <td>instrument in the amount estimated cost responsib Interconnection System Study in the case of the Distribution Provider's In</td> <td>of twenty perce ility assigned to mpact Study <u>DG</u> Distribution Grou</td> <td>nt (20%) ( Applicant <u>SS Phase</u> Ip Study F</td> <td>of the total in the final <u>I Interconnection</u> Process for</td> <td>ity            </td> <td></td>		instrument in the amount estimated cost responsib Interconnection System Study in the case of the Distribution Provider's In	of twenty perce ility assigned to mpact Study <u>DG</u> Distribution Grou	nt (20%) ( Applicant <u>SS Phase</u> Ip Study F	of the total in the final <u>I Interconnection</u> Process for	ity           	
Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.  Applicant shall provide Distribution Provider with written notice that it has posted the required Interconnection Financial Security no later than the applicable final day for posting.  Advice Letter No: 4110-E Issued by Brian K. Cherry Effective Resolution No.  Continued  Advice President  Ad		Security required by this Interconnection Request	Section F.4.b sh	all result i	in the		
has posted the required Interconnection Financial Security no later       1         than the applicable final day for posting.       1         I       I		has posted the required	nterconnection F	der with w Financial S	ritten notice that it Security no later		
Advice Letter No:       4110-E       Issued by       Date Filed       DRAFT 2/19/2013         Decision No.       12-09-018       Brian K. Cherry       Effective		has posted the required	Interconnection	<u>der with w</u> Financial	<u>rritten notice that it</u> Security no later		
Advice Letter No:     4110-E     Issued by     Date Filed     DRAFT 2/19/2013       Decision No.     12-09-018     Brian K. Cherry     Effective						i (N)	
Advice Letter No:     4110-E     Issued by     Date Filed     DRAFT 2/19/2013       Decision No.     12-09-018     Brian K. Cherry     Effective							
Advice Letter No:     4110-E     Issued by     Date Filed     DRAFT 2/19/2013       Decision No.     12-09-018     Brian K. Cherry     Effective						(Continued)	
Vice President Resolution No.							

	ic Gas and Electric Company irancisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31950-E
		ECTRIC RULE NO		ONS	Sheet 94	1
F. REVIE	W PROCESS FOR INT	ERCONNECTION	REQUES	STS (Cont'd.)		(N)
14. IN	TERCONNECTION FINA	ANCIAL SECURIT	Y (Cont'd.	)		
C.	Second Posting of Inter	rconnection Finan	cial Securi	ity		
	On or before one hundr publication of the final <u>I</u> final Interconnection Fa System Impact Study re waived in the case of th post two separate Interconne the total Interconnection Network Upgrades equa percent (30%) of the tot Network Upgrades in ei Study (final DGS Phase Distribution Group Stud Study (final DGS Phase	DGS Phase II Inter cilities Study repo sport if the Interco le Independent Str connection Financial section Financial Securi als the lesser of (i tal cost responsibi- ther the final Inter of Interconnection <u>y Process</u> ) or fina e II Interconnection	rconnectio rt (or final nnection F udy Proce ial Securit a Large G ecurity inst ty posted b ) \$15 millic lity assign connection <u>Study in t</u>	n Study report Interconnectio facilities Study <u>ss</u> ), Applicant y instruments. Generating Fac trument such to by Applicant fo on, or (ii) thirty ed to Applicant n System Impa he case on the lection Facilitie the case of the	on ris shall bility hat or t for act ≘ es	
	Distribution Group Stud Applicant proposing to i post an Interconnection Fir Network Upgrades equa percent (30%) of the tot Network Upgrades in ei Study or final Interconn- final DGS Phase II Inter Distribution Group Stud Second, Applicant shall instrument such that the posted by Applicant for Facilities and Distribution total cost responsibility Interconnection Study of Interconnection System Study Process if the Inter Distribution Provider's I Upgrades.	nterconnect a Sm Financial Security parcial Security po- als the lesser of (i tal cost responsibi- ther the final Inter- ection Facilities Si <u>connection Studie</u> <u>y Process</u> ) which also post an Inter- bistribution Provid on Upgrades equa assigned to Applia <u>r final</u> Interconnect Impact Study in ter- erconnection Faci	all Genera y instrume osted by A ) \$1 millior lity assign connection tudy,(final as, respect ever is low connection finan der's Interd ls thirty pe cant in the ction Facili he case of lities Study	ating Facility sh nt such that th pplicant for h, or (ii) thirty ed to Applican n System Impa DGS Phase I tively, for the er. n Financial Se cial Security connection ercent (30%) of final DGS Pha ties Study,-ion f the Independ y is waived, for	ie t for act or curity f the <u>ase II</u> r final ent	                                   
					(Contir	nued)
Advice Letter No Decision No.	2 4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2	2/19/2013
86C0		Vice President Regulatory Relations		Resolution No.		

	ic Gas and Electric Company irancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31951-E
		ECTRIC RULE NO FACILITY INTER		IONS	Sheet 95	
F. REVIE	EW PROCESS FOR INTE	RCONNECTION	REQUES	STS (Cont'd.)		(N)
24. IN	TERCONNECTION FINAL	NCIAL SECURIT	Y (Cont'd.	)		i
C.	Second Posting of Interc	connection Finan	cial Secur	ity (Cont'd.)		i
	If the start date for Const Distribution Provider's In Upgrades on behalf of A Calendar Days after pub Interconnection Study re report (or final Interconne of the Independent Study Study is waived), that sta Generator Interconnection second posting of Intercon Section F.4.d rather than	terconnection Fa pplicant is prior t lication of the fin- <u>port or final</u> Inter ection System Im <u>y Process</u> if the I art date must be on Agreement an connection Financ	cilities and o one hund al <u>DGS Ph</u> connection pact Stud nterconne- set forth in d Applicar	d Distribution dred twenty ( <u>nase II</u> n Facilities St y report <u>in the</u> ction Facilities Applicant's nt shall make	udy <u>e case</u> s its	
	The failure by an Applica Security required by this Interconnection Request Section F.6 or, if applical the Generator Interconne	Section F.4.c sh being deemed v ble, shall constitu	all result ir /ithdrawn a ite ground	n the and subject to	)	
d.	Third Posting of Intercor	nnection Financia	I Security.			i
	On or before the start of or Distribution Provider's Upgrades on behalf of A modify the two separate posted as follows.	Interconnection pplicant, whichey	Facilities of rer is earlie	or Distribution er, Applicant s	ı shall	
	With respect to the Interce Network Upgrades, Appl equals one hundred perce assigned to Applicant for Interconnection Study or final Interconnection Sys Independent Study Proce waived.	icant shall modificent (100%) of the Network Upgrading the <u>final</u> Interconnect tem Impact Stud	/ this instrue total cos les in the t tion Facili y in the ca	ument so that it responsibilit final <u>DGS Pha</u> ties Study, or use of the	t it sy <u>ase II</u> the	   (N)
					(Continu	ued)
Advice Letter No Decision No.	2: 4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT 2/	19/2013
87C0		Vice President Regulatory Relations		Resolution No.		

	0	e <b>Gas and Electric Co</b> ancisco, California	<b>mpany</b> Cance	Original elling	Cal. P.U.C. She Cal. P.U.C. She		31952-E
		GENE	ELECTRIC RUL RATING FACILITY IN		IONS	Sheet 9	96
F. R	EVIE	W PROCESS FC	R INTERCONNEC	TION REQUE	STS (Cont'd.)		(N)
<u>3</u> 4.	INT	ERCONNECTIO	N FINANCIAL SEC	URITY (Cont'd	.)		
	d.	Third Posting of	Interconnection Fin	ancial Security	(Cont'd.)		i
		Distribution Prov Upgrades, Applic hundred percent Applicant for Dis final <u>DGS Phase</u> Facilities Study,	ne Interconnection I ider's Interconnection ant shall modify this (100%) of the total tribution Provider's II Interconnection S for the final Interconnection adependent System is waived.	on Facilities or s instrument so cost responsib Interconnection Study or final Ir nection System	Distribution that it equals bility assigned to a Facilities in the terconnection a Impact Study	one o ne y in	
		Security required	Applicant to timely by this Section F.4 Generator Interco	d shall constil	tute grounds fo	ancial or	
	e.	Termination of th	f Withdrawal of Inte ne Generator Interco Financial Security <u>fo</u> dy Process	onnection Agre	ement on	2	
		Request or termi shall allow Distril Financial Securit Upgrades at the liquidated Interco separately provio Network Upgrad cost responsibilit final Interconnec System Impact S	th in Section F.4.e.i nation of a Generat pution Provider to lid y, or balance thered time of withdrawal. onnection Financial led by Applicant to s es in accordance wi y for Network Upgra tion Facilities Study idudy if the Interconni ider shall remit to A	or Interconnec quidate the Inte of, posted by A To the extent Security plus of satisfy its oblig th Section E.4 ades assigned , or the final In nection Facilitie	tion Agreemen erconnection pplicant for Ne the amount of capital, if any, ation to finance exceeds the to to Applicant by terconnection es Study is wai	nt etwork the e otal y the	- - - - - - (N)
							inued)
Advice Lei Decision N		4110-E 12-09-018	lssued by <b>Brian K. Che</b> Vice Preside	erry	Date Filed Effective Resolution No.	DRAFT	2/19/2013
88C0			Regulatory Rela		NESUIUIUII INU.		

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
		ELECTRIC RULE NO		IONS	Sheet 97
4. INTE	GENERATIN V PROCESS FOR IN ERCONNECTION FIN General Effect of With Termination of the Ge Interconnection Finan Independent Study PI Withdrawal of an Inter Generator Interconner Applicant of any Inter Applicant for Distribution Distribution Upgrades to pay for costs incurr Provider on behalf of J Interconnection Facilit Distribution Provider h i) Conditions for Pa Security Upon Wi Termination of Ge A portion of the Ir released to Applic withdrawal of the Generator Interco following reasons (1) Failure to Securitation of Applicant den failed to securitation of failed to securitation of faith effort to	NG FACILITY INTER TERCONNECTION IANCIAL SECURIT Indrawal of Intercome inerator Interconne- icial Security for Pro- focess. (Cont'd.) roonnection Requess ction Agreement sh connection Financia on Provider's Interor , except with respec- ed or irrevocably co Applicant for Distrib- ties and Distribution has not been reimbu- ritial Recovery of Intercor- enerator Interconne- therconnection Fina- cant, consistent with Interconnection Re- menter a Power Purch withdrawal of the I f the Generator Inter- nonstrates to Distrib- re an acceptable po- capacity of the Generator Inter- generator Interconne- capacity of the Generator Inter- generator Inter- capacity  Inter- generator I	CONNECT I REQUES Y (Cont'd nection Rection Agre pjects Stud st or termin all result in all result in all security connection ct to any a primitted b ution Prov upgrades ursed. terconnect nection Agree nection Agree nection Agree nection Prov agrees or ter nection Agree nection Prov asse Agrees nector ter nection Prov passe Agrees nector purch nection Prov passe Agrees neterconnection power purch nerating F effort car	STS (Cont'd.) equest or ement on died Under the nation of a n the release to posted by Facilities and mounts necess by Distribution rider's and for which ion Financial equest or ement. Trity shall be F.4.e.ii, if the ermination of the or any of the ement.	(N) I I I I I I I I I I I I I
	process or bil Affiliate that p	g participation in a ateral negotiations rogressed, at minir -parties of propose	with an er num, to th	itity other than a e mutual excha	nge (N) (Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed	DRAFT 2/19/2013
89C0		Vice President Regulatory Relations		Resolution No.	

1

	c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		<b>ECTRIC RULE NO</b> G FACILITY INTER		IONS	Sheet 98
F. REVIE	W PROCESS FOR INT	ERCONNECTION	REQUES	STS (Cont'd.)	(Ņ)
<u>5</u> 4. INT	FERCONNECTION FINA	ANCIAL SECURIT	Y (Cont'd	.)	
e.	General Effect of Withor Termination of the Gen Interconnection Financ Independent Study Pro	erator Interconnection ial Security for Pro-	ction Agre	ement on	
	<ul> <li>Conditions for Parti Security Upon With Termination of Ger</li> </ul>	drawal of Intercor	nection R	Request or	l.)
	(2) Failure to Secu	ire a Necessary P	ermit.		
	termination of t Applicant demo received a fina Authority of an	vithdrawal of the In the Generator Inte constrates to Distrib I denial from the p y permit or other a n or operation of the	rconnection oution Pro rimary iss outhorization	on Agreement, vider that it has uing Governme on necessary f	s I ental I
	<ul><li>(3) Increase in the Facilities or Dis</li></ul>	Cost of Distribution		er's Interconneo	ction I
	terminates the on an increase is greater, in th Interconnectior whichever is gr Upgrades alloc System Impact This Section F. increase under	Iraws the Intercon Generator Interco of: (i) more than 3 e estimated cost of Facilities; or (ii) r eater, in the estim ated to Applicant : Study to the Inter 4.e.i.(3) shall not a (i) or (ii) above is spplicant pursuant	nnection / 30% or \$3 of Distribu nore than lated cost from the I connectio apply if the the result	Agreement bas 00,000, whiche tion Provider's 30% or \$300,0 of Distribution nterconnection in Facilities Stu e cause of the of a change	ever I 1 000, I 1 1 1 1 1 1
Advice Letter No	4440 5	lagued by		Date Filed	(Continued)
Decision No.	: 4110-E 12-09-018	lssued by <b>Brian K. Cherry</b> Vice President		Effective Resolution No.	DRAFT 2/19/2013
90C0		Regulatory Relations			

		n <b>d Electric Co</b> l , California	mpany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31955-E*
		GENE		RIC RULE NO		IONS	Sheet	99
<u>&gt;</u> 4. INT e.	ERCC Gene Term Interc i) C S T (4	OCESS FC DNNECTIO eral Effect o ination of th connection of conditions fc Security Upc ermination 4) Material Created Intercon Applicar terminat on a ma Study in Facility r final Inter Point of Intercon different different Chedule for interconnect 1) Up to Or the <del>Final</del> (or <del>Final</del> report if If, at any Financia	RATING FAC RATING FAC R INTERCO N FINANCIA f Withdrawa the Generato Financial Se or Partial Re on Withdrawa of Generato Change in A by Distributi nection. At withdraws the Senerato Change in A by Distributi nection. At withdraws the Point of mandated by pronnection Interconnec nection has line on a dif location tha Determinini ion Financia the Hundred <u>Afinal Interco</u> the Intercon or time after t I Security for	DNNECTION AL SECURIT I of Intercon r Interconne courity. (Con- covery of In- covery of Intercon r Interconne Applicant's In ion Provider the Intercor rator Intercor e from the In- interconne / Distributior Facilities St tion shall be moved to (i) ferent right of in previously g Non-Refun al Security for Twenty (120 connection Fac- ponnection Sy nection Fac- he initial pos-	CONNECT N REQUES TY (Cont'd. nection Rection Agre t'd.) terconnect is Change nection Agre terconnect is Change nection Rection A rection Agre terconnect is Change nection for the provider tudy. A ma where the a differen of way, or i dentified ndable Por or Network 0) Calenda acilities Stud stimg of the pgrades u	STS (Cont'd.) equest or ement on ion Financial equest or ement. (Cont'd ction Facilities in the Point of equest or Agreement bas tion System In e Generating and included i aterial change Point of t substation, (i (iii) a materiall on the same I tion of the	d.) f sed npact n the in the in the in the in the <u>fter</u> <u>port</u>	(N)                         
Advice Letter No: Decision No. 91C0	4110 12-0	D-E 9-018	<b>Bri</b> Vie	Issued by an K. Cherry ce President latory Relations		Date Filed Effective Resolution No.		ntinued) [ 2/19/2013

1

P	G&E	San Er	Gas and Electric ( ancisco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31956-E <sup>°</sup>
			GEN	ELECT	CILITY INTER		IONS	Sheet 1	00
	F. F	REVIE	W PROCESS F	OR INTERC	ONNECTION	N REQUES	STS (Cont'd.)		(N)
7	4.	INT	ERCONNECTI	ON FINANCI	AL SECURI	ΓΥ (Cont'd	.)		
1		e.	General Effect Termination of Interconnection	the Generate	or Interconne	ection Agre			
				for Determini ection Financi			rtion of the Upgrades (Co	onťd.)	
			Final I Interco	One Hundred nterconnectio onnection Sys onnection Fac	on Facilitiès S stem Impact	Study Repo Study Rep	ort if the	he	
1			Study report Applic termin applica Provid for Ne Applic percer Financ \$10,00 Gener retaine Financ Constr Applic Interco under Pre-Co Provid	report (or fina if the Intercon ant withdraws ates the Gen able, in accor er shall liquid twork Upgrad ant in an amo the (50%) of the cial Security for the sec	al Interconne nnection Fac s the Intercor erator Intercor dance with S late the Inter les under Se bunt of (i) any e value of the or Network L sted and appi Capacity at t tion Provider has been dravites for Network er of the rema ancial Secur Applicant has connection F ctivities for N the capital pr	ction Syste ilities Stud prection R Section F.4. or posted an e posted an e posted an pgrades (1 roved MW the time of (1), or (ii) if 1 win down to prk Upgrades aining bala is separate inancial S etwork Up ovided as	equest or Agreement, as 4.e.i, Distribution Financial Se of and reimbur mount less fift neterconnection with a maximu- value of the withdrawal be the Interconnection of finance Pre- les on behalf of nce of the mount calcular ly provided ca ecurity to finan grades, Distril if drawn from	s on curity se y im of ection of of ated pital nce bution	- - - - - - - - - - - - - - - (N)
								(Cor	ntinued)
	lvice Le ecision	etter No: No.	4110-E 12-09-018		lssued by <b>rian K. Cherry</b> /ice President		Date Filed Effective Resolution No.	DRAF	T 2/19/2013
92	C0				ulatory Relations				

1

	Gas and Electric Company ancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		7-E
		ECTRIC RULE NO		IONS	Sheet 101	
F. REVIE	W PROCESS FOR INT	ERCONNECTION	REQUES	STS (Cont'd.)	(N)	
34. INT	ERCONNECTION FINA	NCIAL SECURIT	Y (Cont'd.	)		
e.	General Effect of Withd Termination of the Gen Interconnection Financi	erator Interconne	ction Agre			
	<li>ii) Schedule for Deter Interconnection Fin (Cont'd.)</li>	mining Non-Refur ancial Security fo	idable Por r Network	tion of the Upgrades.		
		Hundred Twenty-O rconnection Facili nt of Construction	ies Study	Report and th	s and l e l	
	Calendar Days Interconnection System Impact Study is waived Activities for eit Provider's Inter Applicant withd terminates the applicable, in a Provider shall I for Network Up Applicant in an percent (50%) Financial Secu \$20,000 per red Generating Fad retained by Dis Financial Secu Construction A Applicant, the I Interconnectior under (i) above apart from the Pre-Construction	between one hund and after the date a Facilities Study r Study report if the d), and the comme ther Network Upg connection Facilit raws the Intercon Generator Interco ccordance with S iquidate the Interco grades under Se amount of (i) any of the value of the rity for Network Up quested and appri- cility Capacity at the tribution Provider rity has been draw ctivities for Network esser of the rema a Financial Securit on Activities for Network of Activities for Network of Activities for Network of Activities for Network of The capital pro- net financial Securit	e of issuant eport (or f enterconner- ades or D ies or Dist nection Re- nection F.4. posted an posted an posted an ogrades (v oved MW he time of n, or, (ii) if f vn down to rk Upgrad- ning balar y or the an separatel nancial Se etwork Upp ovided as i	ice of the final inal Interconne nection Faciliti of Constructio istribution Upgra equest or Agreement, as .e.i, Distributio Financial Sec and reimburs nounts less fift terconnection vith a maximul value of the withdrawal be the Interconne of finance Pre- es on behalf on the of the mount calculat y provided cap ecurity to finan grades, Distrib f drawn from t	ection         I           es         I           n         I           n         I           n         I           n         I           n         I           n         I           n         I           n         I           pn         I           pn         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I           print         I	
	4440 5			Data 5%	(Continued)	
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/20	113
9300		Vice President Regulatory Relations		Resolution No.		

Regulatory Relations

	<b>c Gas and</b> rancisco, C	Electric Company California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		1959-E		
			ECTRIC RULE NO		IONS	Sheet 102			
F. REVIE	W PRO	CESS FOR INTE	ERCONNECTION	REQUES	STS (Cont'd.)	1)	N)		
<u>)</u> 4. IN	TERCON	NNECTION FINA	NCIAL SECURIT	Y (Cont'd	.)				
e. General Effect of Withdrawal of Interconnection Request or Termination of the Generator Interconnection Agreement on Interconnection Financial Security. (Cont'd.)									
	Int	hedule for Detern erconnection Fin ont'd.)	mining Non-Refur ancial Security fo	idable Poi r Network	rtion of the Upgrades.				
	(3)	After Commend	cement of Constru	ction Acti	vities.				
		of Applicant con Request or terr	tion Activities on I mmence, any with nination of the Ge Applicant will be t	ndrawal of nerator In	the Interconn terconnection	ection			
	(4)	Notification and	d Accounting by D	istribution	Provider.				
		Business Days Security. Withi liquidating ever with an accoun liquidated Intern not otherwise ra- incurred or irrev behalf of Applic be applied as d Applicant with r Financial Secur proceeds shall	ovider will notify A of liquidating any n seventy-five (75 ting of the disposi connection Finance eimbursed to App vocably committee ant in accordance lirected by the Co remaining proceed rity cannot be loca escheat to the St ommencing with to 500.	Interconn Calenda vider will tion of the cial Securi licant or a d by Distri e with this mmission. ds from In ated, such ate pursua	action Financia ar Days of any provide Applic proceeds of t ty and all proc pplied to costs bution Provide Section F.4.e Where an terconnection remaining ant to the Uncl	ant he æeds s er on shall aimed ivil	· · · · · · · · · · · · · · · · · · ·		
						(Continue	ed)		
Advice Letter No Decision No.	: 4110-E 12-09-		lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19	3/2013		
95C0			Vice President Regulatory Relations		Resolution No.				

	Gas and Electric Company ancisco, California	Or Cancelling	riginal	Cal. P.U.C. She Cal. P.U.C. She		31959-E		
		TRIC RULE NO. 21 Acility Intercom	-	ONS	Sheet 103	3		
	W PROCESS FOR INTER					(N)   	<b>•</b>	Formatted: Indent: Left: 0.25", No bullets or
	General Effect of Withdray Termination of the Genera Interconnection Financial Independent Study Proces ii) Schedule for Determir Interconnection Finan	val of Interconnect tor Interconnection Security for Projec is. (Cont'd.) ning Non-Refundat	tion Re <u>n Agre</u> ts Stud	q <u>uest or</u> ement on lied Under the tion of the	2			numbering
 	<u>(Cont'd.)</u> <u>f. F. REVIEW PROCESS</u> (Cont'd.) eneral Effect of Withdrawa of the Generator Interc	FOR INTERCONN	NECTIO	<del>N REQUEST</del>	nation		•	Formatted: Indent: Left: 0.67", Numbered + Level: 1 + Numbering Style: a, b, c, + Start at: 1 + Alignment: Left + Aligned at: 1.25" + Indent at: 1.5" Formatted: Indent: Left: 0.67"
	Financial Security for Int Distribution Group Study. Withdrawal of an Inter Generator Interconnection	connection Reque	<u>quests</u> est or	Studied Und termination	<u>er the</u> of a		•	- Formatted: Indent: Left: 0.92"
	to liquidate the Interconnection posted by Applicant for Net the time of withdrawal. Interconnection Financial provided by Applicant to Upgrades or Distribution exceeds the total cost Distribution Upgrades Interconnection Facilities Impact Study if the In Distribution Provider shall	ection Financial Se etwork Upgrades of To the extent the Security plus c b satisfy its oblig Upgrades in acc responsibility fo assigned to A Study, or the fina terconnection Fa	ecurity, or Distr anou apital, ation f ordanc or Net Applica al Inter cilities	or balance the ibution Upgrated if any, separated of finance Noted with Section work Upgrated nt by the connection Sec	ereof, des at idated arately etwork on E.4 es or final ystem			
	Withdrawal of an Inter Generator Interconnectio Applicant of any Intero Applicant for Distribution with respect to any amou irrevocably committed by for Distribution Provider Distribution Provider has r	n Agreement sha connection Finan Provider's Interco unts necessary to Distribution Provides Interconnection	Il resu cial S nnectio pay fo der on Facili	t in the relea ecurity poste on Facilities, o or costs incur behalf of Ap	ase to ed by except red or plicant	I (N)		
Advice Letter No: Decision No. 95C0		Issued by Brian K. Cherry Vice President equiatory Relations		Date Filed Effective Resolution No.	(Contir DRAFT 2	,		
5500		guidiory Nelalions						

DOAL	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31959-E
	ELEC GENERATING FA	TRIC RULE NO	. <b>21</b> CONNECTIO	ONS	Sheet 103	
					(Continu	ed)
Advice Let Decision N		Issued by		Date Filed Effective	DRAFT 2/1	9/2013
95C0		Brian K. Cherry Vice President gulatory Relations		Resolution No.		



Pacific Gas and Electric Company San Francisco, California

Original Cancelling

Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.

31959-E

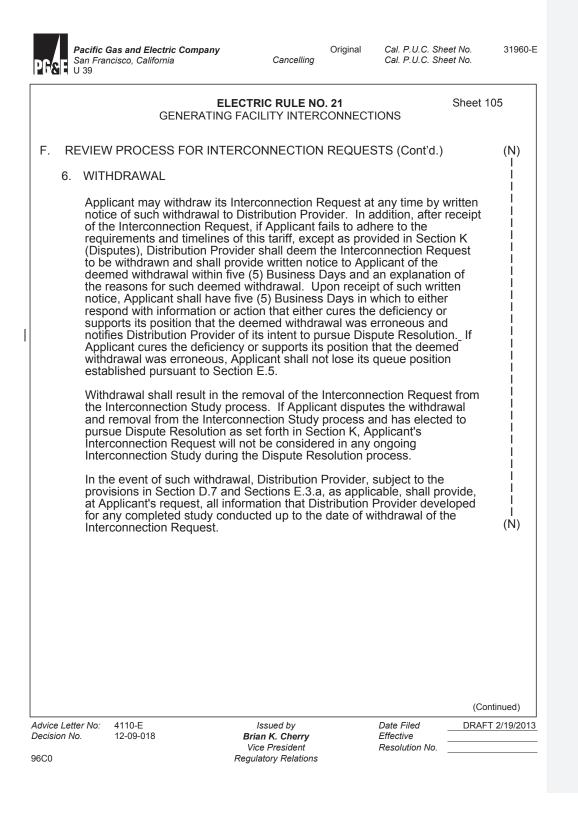
**ELECTRIC RULE NO. 21** Sheet 104 GENERATING FACILITY INTERCONNECTIONS F. REVIEW PROCESS FOR INTERCONNECTION REQUESTS (Cont'd.) 5. COMMISSIONING TESTING AND PARALLEL OPERATION a. Commissioning Testing Producer Arranges for and Completes Commissioning Testing of Generating Facility and Producer's Interconnection Facilities: Producer is responsible for testing new Generating Facilities and associated Interconnection Facilities according to Section L.5 to ensure compliance with the safety and reliability provisions of this Rule prior to being operated in parallel with Distribution Provider's Distribution or Transmission System. For non-Certified Equipment, Producer shall develop a written testing plan to be submitted to Distribution Provider for its review and acceptance. Alternatively, Producer and Distribution Provider may agree to have Distribution Provider conduct the required testing at Producer's expense. Where applicable, the test plan shall include the installation test procedures published by the manufacturer of the Generating Facility or Interconnection Facilities. Facility testing shall be conducted at a mutually agreeable time, and depending on who conducts the test, Distribution Provider or Producer shall be given the opportunity to witness the tests. b. Parallel Operation or Momentary Parallel Operation Producer shall not commence Parallel Operation of its Generating Facility with Distribution Provider's system unless it has received Distribution Provider's express written permission to do so. Distribution Provider shall authorize Producer's Generating Facility for Parallel Operation or Momentary Parallel Operation with Distribution Provider's Distribution or Transmission System, in writing, within five (5) Calendar Days of satisfactory compliance with the terms of all applicable agreements. Compliance may include, but not be limited to, provision of any required documentation and satisfactorily completing any required inspections or tests as described herein or in the agreements formed between Producer and Distribution Provider. (Continued) Advice Letter No: 4110-E Issued by Date Filed DRAFT 2/19/2013 Decision No. 12-09-018 Brian K. Cherry Effective

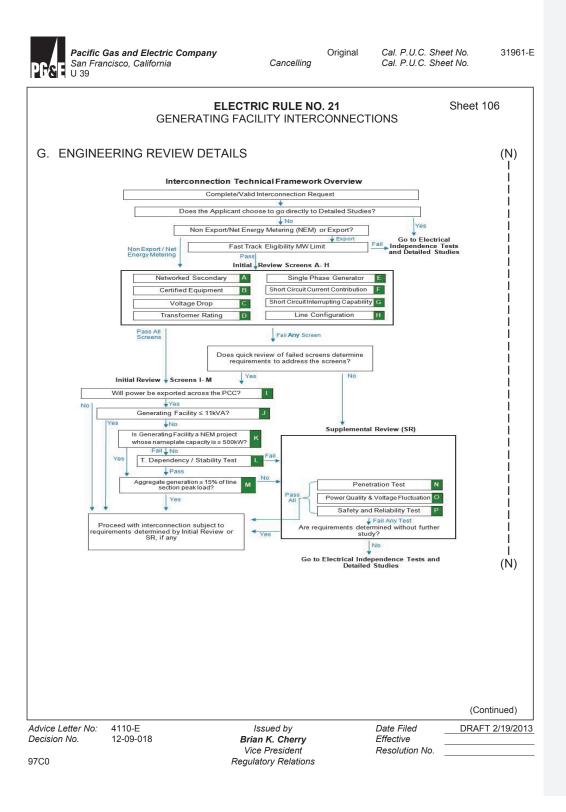
Vice President

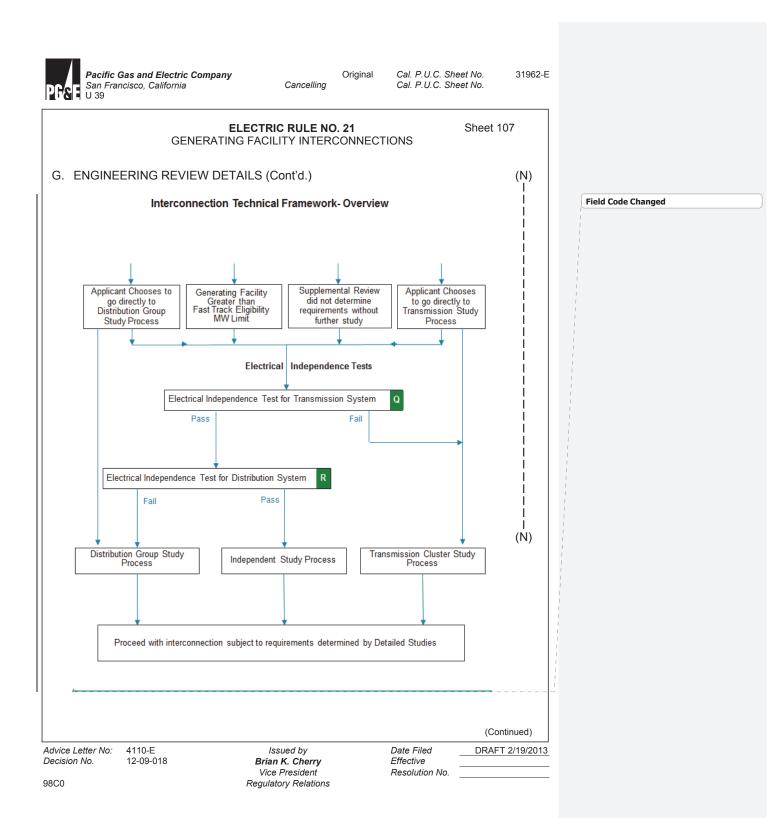
Regulatory Relations

Resolution No.

95C0







PG&E		<b>: Gas and Electric Company</b> ancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31963-E*			
			ECTRIC RULE NO		IONS	Sheet 108				
G. E	NGIN	EERING REVIEW DETA	ILS (Cont'd.)				(N)			
1.	INI	TIAL REVIEW SCREEN	S							
	The Initial Review consists of Screens A through M. If any of the ScreensIA through H are not passed, a quick review of the failed Screen(s) mayIdetermine the requirements to address the failure(s).Otherwise,Supplemental Review is required.I									
		me examples of solutions a failed Screen A through		ailable to n	nitigate the im	pact				
	1.	Replace an overloaded transformer.	distribution trans	former wit	h a larger					
	2.	Replace overloaded see	condary conducto	ors with lar	ger conductor	·.				
<ol> <li>Determine if phase balancing on the transformer is possible with minimal review.</li> </ol>										
	4.	If possible without furthe actually overstress equi	er study check if t pment.	the Genera	ating Facility v	vill				
	a.	Screen A: Is the PCC of	on a Networked S	econdary	System?		i			
		<ul> <li>If Yes (fail), must go Generating Facility is criteria. If the Gener continue to Screen E</li> </ul>	s on a Spot Netw rating Facility me	ork and m ets the foll	eets the follow					
		The proposed Gene equipment package inverter-based gene Spot Network's max the interconnection a Spot Network or c Network protectors.	and, together wit ration, shall not e imum load or 50 of a Generating F	th the aggr exceed the kW. Unde acility res	egated other smaller of 5 9 r no condition ult in a backfe	% of a shall ed of	i I I I (N)			
						(Continu	ued)			
Advice Le		4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/	19/2013			
99C0			Vice President Regulatory Relations		Resolution No.					

	: Gas and Electric Company ancisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		ECTRIC RULE NO FACILITY INTER			Sheet 109
G. ENGIN	EERING REVIEW DETA	ILS (Cont'd.)			(N)
1. INI <sup>-</sup>	TIAL REVIEW SCREENS	S (Cont'd.)			
a.	Screen A: Is the PCC of	on a Networked S	econdary	System? (Cont	ťd.)
	• If No (pass), continue	e to Screen B.			
	Significance: Specia Facilities proposed t Systems because of network protectors. distribution systems.	o be installed on f the design and o There are no suo	Networke operationa	d Secondary I aspects of	
b.	Screen B: Is Certified E	quipment used?			
	Does the Interconnectio as set out in Section L c Provider approval?	n Request propo or does the equip	se to use ment have	Certified Equip interim Distrib	ment I ution I
	• If Yes (pass), continu	ue to Screen C.			
	• If No (fail) continue t	o Screen C pursi	uant to Se	ction G.1.	
	Interim approval allows has not completed this F met the intent of this scr Distribution Provider's d for one Generating Faci Generating Facility.	Rule's Certification reen. Interim appriseretion on case	on requirer proval is gr by case b	nents as having anted at bases, and app	g I I roval I
	Significance: If the Gen been Certified or previor Distribution Provider do of the Generating and/o Functions. Site Commis ensure that the Protectiv Certification indicates th have been tested and ve	usly approved by es not need to re r Interconnection ssioning Testing ve Functions are at the criteria in S	Distribution peat its full Facility's may still b working p	on Provider, I review and/or Protective e required to roperly.	test I I I I
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	(Continued) DRAFT 2/19/2013

Regulatory Relations

100C0

	PGa			s and Electric sco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31965-E'	
				GEI		CTRIC RULE NO		IONS	Sheet 1	10	
	G.	ENGIN	EEF	RING REVI	EW DETAIL	S (Cont'd.)				(Ņ)	
		1. INI	ΓΙΑΙ	L REVIEW	SCREENS (	Cont'd.)				i	
		C.	Sc	reen C: Is	the Starting	Voltage Drop v	vithin acce	ptable limits?			
		• If Yes (pass), continue to Screen D.									
			•	If No (fail),	, continue to	Screen D purs	uant to Se	ection G.1.			
	Note: This Screen only applies to Generating Facilities that start by motoring the Generator(s). Distribution Provider has two options in determining whether Starting Voltage Drop is acceptable. The option to be used is at Distribution Provider's discretion.										
			Fa	cility's starti	ing In-rush C	vider may dete Current is equal of the Custome	to or less	than the	g		
1			ser cor dro nor sta	vice distrib nductors to p calculatio nographs to rting a Gen	ution transfo Customer's on. Alternati o determine lerator must	vider may dete rmer (if presen service equipm vely, Distributic the voltage dro be less than 2. or secondary li	t) and the nent and p on Provide opVoltag 5% for prii	secondary erform a volta r may use tab e drops cause mary	ge les or		
			Sig	nificance:							
			1.			s potential volt nerators that s			s that		
			2.			ating Facilities to other Distril					
			3.	its Genera	his Screen d ating Facility Section H.2	oes not relieve complies with .d.	Producer the flicker	from ensuring requirements	that of	   (N)	
										tinued)	
	Advice Decisio	e Letter No: on No.		110-E 2-09-018		Issued by Brian K. Cherry		Date Filed Effective	DRAFT	2/19/2013	
	101C0	1			Re	Vice President egulatory Relations		Resolution No.			

	PG/		an Fr	<b>: Gas and Electric Company</b> ancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31966-E*
					ECTRIC RULE NO		IONS	Sheet 11	1
	G.	EN	GIN	EERING REVIEW DETA	ILS (Cont'd.)				(N)
		1.	INI	TIAL REVIEW SCREEN	S (Cont'd.)				
			d.	Screen D: Is the trans exceeded?	former or second	ary condu	ctor rating		
				Do the maximum aggree Facilities connected to a transformer or secondar Distribution Provider pra	a secondary distri	bution trar g, modifie	nsformer exce d per establis	ed the	
				• If Yes (fail), continue	e to Screen E pur	suant to S	ection G.1.		
				• If No (pass), continu	e to screen E.				
I				Significance: This scree or secondary conductor analysis determines a tr Distribution Provider will the change is needed.	overloads. When ansformer or con	n Distribut ductor cha	ion Provider's	ed,	
			e.	Screen E: Does the Sir imbalance?	ngle-Phase Gene	rator caus	e unacceptab	le	
				If the proposed Generat interconnected on a cen cause unacceptable imb service?	ter tap neutral of	a 240 volt	service, does	s it 40 volt	
				• If Yes (fail), continue	e to Screen F purs	suant to S	ection G.1.		
				• If No (pass), continu	e to screen F.				(N)
								(0*	
	Advice	e l ette	er No	4110-E	Issued by		Date Filed	(Conti	nued) 2/19/2013
	Decisi			12-09-018	Brian K. Cherry Vice President		Effective Resolution No.		L, 10/2010
	102C0	)			Regulatory Relations				

	PGa		Son Er	<b>: Gas and Electric C</b> ancisco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		-E*
				GEN		T <b>RIC RULE NO</b> CILITY INTER		IONS	Sheet 112	
	G.	EΝ	IGIN	EERING REVIE	W DETAILS	6 (Cont'd.)			(N)	
		1.	INI	TIAL REVIEW S	SCREENS (C	Cont'd.)			ļ	
			e.	Screen E: Doe imbalance? (C		e-Phase Gene	erator caus	e unacceptab	le I I	
I				Significance: ( transformer wi that the aggree between the tw Provider's ana Distribution Pro- why the chang	th 120/240 V gated gross of vo phases of lysis determi ovider will fu	/ secondary v output is as ba f the 240 volt ines a transfo rnish the cust	oltage mus alanced as serviceV rmer chan	st be installed s practicable /hen Distributi ge is required	such I I ion I I. I	
			f.	Screen F: Is the acceptable lim		cuit Current C	ontributior	Ratio within		
				• If Yes (pass	s), continue t	to Screen G.				
				• If No (fail),	continue to S	Screen G purs	suant to Se	ection G.1.	ļ	
				Note: This Scr Gross Rating o			nerating Fa	acilities with a		
				When measure Distribution Tra Short Circuit Co to Distribution F Generating Fac	ansformer se ontribution R Provider's Di	rving a Gener atios of all Ge stribution Sys	rating Faci enerating f stem circui	lity, the sum o Facilities conn t that serves th	ected I	
				Significance: If expected that if Provider's Distr sensitivity, rela	t will have no ribution Syste	o significant in em's short cir	npact on D cuit duty, f	istribution ault detection		
									(Continued)	
l	Advice	e Leti	er No:			Issued by		Date Filed	DRAFT 2/19/201	3
	<i>Decisi</i> 103C0		0.	12-09-018	1	<b>Brian K. Cherry</b> Vice President gulatory Relations		Effective Resolution No.		_

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO		ONS	Sheet 113
G. ENGINE	ERING REVIEW DETA	AILS (Cont'd.)			(N)
1. INIT	IAL REVIEW SCREEN	S (Cont'd.)			
g.	Screen G: Is the Short	Circuit Interruptin	g Capabili	ty Exceeded?	
	Does the proposed Ger Generating Facilities on protective devices and o substation breakers, fus Interconnection Reques of the short circuit interr proposed for a circuit th interrupting capability?	the distribution ci equipment (includi e cutouts, and lin t equipment on th upting capability;	rcuit, caus ing, but no e reclosers e system f or is the In	e any distribu t limited to, s), or to exceed 87.3 iterconnection	I 5% I 1
	If Yes (fail) continue	to Screen H purs	uant to Se	ection G.1.	
	<ul> <li>If No (pass), continu</li> </ul>	ie to Screen H			
	Note: This Screen does Gross Rating of 11 kVA		erating Fa	cilities with a	
	Significance: If the Ger expected that it will not to be overstressed.	nerating Facility pa cause any of Distr	asses this s ribution Pro	screen, it can ovider's equip	be I ment I (N)
					(Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed	DRAFT 2/19/2013
104C0		Vice President Regulatory Relations		Resolution No.	

	Gas and Electric Company Incisco, California	Orig Cancelling	ginal Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO. 21 FACILITY INTERCON	NECTIONS	Sheet 114
G. ENGINE	ERING REVIEW DETA	AILS (Cont'd.)		(N)
1. INIT	IAL REVIEW SCREEN	S (Cont'd.)		
	Screen H: Is the line content of the line cont	onfiguration compatibl	le with the	
	<ul> <li>If Yes (pass), contin</li> </ul>	ue to Screen I.		
	If No (fail), continue	to Screen I pursuant	to Section G.1.	
	Note: This Screen does Gross Rating of 11 kVA	s not apply to Generat or less	ing Facilities with a	
	Line Configuration Scre configuration that will se of Interconnection to be from Table G.1 if the pro	erve the Generating Fa	acility. Based on th ing Facility, determi	ine I
	Type	Table G-1 of Interconnection		
-	Primary Distribution Line Type Configuration Three-phase, three-wire Three-phase, four-wire Three-phase, four-wire (For any line that has such a section OR mixed three-wire &	Type of Interconnection to be made to <u>Primary Distribution Line</u> Any type Single-phase, line-to-neutral All others	Result/Criteria Pass Screen Pass Screen To pass, aggregate Generating Facility nan rating must be less that or equal to 10% of Line Section peak load	n l
Advice Letter No: Decision No. 105C0	4110-E 12-09-018	lssued by <b>Brian K. Cherry</b> Vice President Regulatory Relations	Date Filed Effective Resolution No.	(Continued) DRAFT 2/19/2013

	as and Electric Company cisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31970-E*
		ECTRIC RULE NO		IONS	Sheet 11	5
G. ENGINEE	ERING REVIEW DETAI	LS (Cont'd.)				(N)
1. INITIA	AL REVIEW SCREENS	(Cont'd.)				
	Creen H: Is the line cornection type? (C		atible with	the		
Fa di ne D of	ignificance: If the prima acility is of a "three-wire stribution transformer is eutral configuration, the istribution Provider's, or ' system neutral groundi landing Protective Func	" configuration, single-phase a n there is no cor other Custome ing during the op	or if the Go nd connec ncern abou r's equipm	enerating Fac ted in a line-t ut overvoltage ent caused b	cility's o- es to y loss	
i. S	creen I: Will power be	exported across	the PCC?			
•	If Yes, Continue to So	creen J.				
•	If No, then to ensure a across the PCC, the o the following five option complete.	Generating Facil	ity must in	icorporate on	e of	
e> pr (e se	ption 1 ("Reverse Powe covided. The default set export) of the service tra econd time delay. For n 8.	, a reverse pow tting for this Pro nsformer's ratin	er Protecti tective Fui g, with a n	ve Function r action shall be aximum 2.0	nay be e 0.1%	       (N)
					(01)	
Advice Letter No:	4110-E	Issued by		Date Filed	(Conti	nued) 2/19/2013
Decision No. 106C0	12-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.		

	c <b>ific Gas and Electric Company</b> n Francisco, California 19	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		971-E
	ELEC GENERATING FA	TRIC RULE NO Acility Interg		IONS	Sheet 116	
G. ENG	INEERING REVIEW DETAILS	S (Cont'd.)			(N	)
1. 1	NITIAL REVIEW SCREENS (	Cont'd.)				
i	. Screen I: Will power be ex	ported across	the PCC?	(Cont'd.)		
	Option 2 ("Minimum Power minimum amount of power (and, therefore, that power Function may be provided. Function shall be 5% (impo Rating, with a maximum 2.	is imported ac is not exported The default se ort) of Generati	ross the F d), an und etting for t ng Facility	PCC at all time er-power Prote his Protective	s I ective I I I	
	Option 3 (Certified Non-Isla export of power is limited to all of the following condition Generating Facility must be rating of Producer's service the Generating Facility must service transformer capacit apply to Customers taking transformer); and c) the Generating Islanding.	o acceptable le ns be met: a) th e no more than e equipment; b) st be no more t ty rating (this ca primary service	vels, this 25% of th the total han 50% apacity re without a	option requires ross Capacity ne nominal am Gross Capacit of Producer's quirement doe an intervening	s that I of the I pere I ty of I es not I	
	The ampere rating of the C this evaluation will be that r was originally sized or for v not the intent of this provisi increasing the size of the c approval for the resize.	rating for which which an upgra on to allow inc	the custo de has be reased ex	omer's utility se en approved. port simply by	ervice I It is I I	l)
					(Continued	(E
Advice Letter		lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/	2013
107C0		Vice President gulatory Relations		Resolution No.		

		s and Electric Company sco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		972-E			
			ECTRIC RULE NO FACILITY INTER		IONS	Sheet 117				
G. ENGI	NEEF	RING REVIEW DETA	ILS (Cont'd.)			(N	)			
1. IN	ITIA	L REVIEW SCREENS	6 (Cont'd.)							
i.	Sc	reen I: Will power be	exported across	the PCC?	? (Cont'd.)					
	Option 4 (Relative Generating Facility Rating): This option, when used, requires the Net Rating of the Generating Facility to be so small in comparison to its host facility's minimum load, that the use of additional Protective Functions is not required to ensure that power will not be exported to Distribution Provider's Distribution or Transmission System. This option requires the Generating Facility capacity to be no greater than 50% of Producer's verifiable minimum Host Load over the past 12 months.									
	Ор	tion 5: Inadvertent Ex	port as described	d in Appen	idix One.					
	Sig	nificance:								
	1.	If it can be assured a power, Distribution F does not need to be Generating Facility p voltage regulators.	Provider's Distribution studied for load-	ution or Tr carrying c	ansmission Sy apability or	ystem I				
	2.	This Screen permits relaying as a Non-Is 3).	the use of revers landing Protectiv	se-power ve Function	or minimum-po n (Option 1, 2,	ower I and I				
	3.	This Screen allows, Generating Facilities protection to qualify process without imp Protective Functions	s that incorporate for interconnection lementing revers	e Certified on through	Non-Islanding the Fast Trac	ck I	)			
						(Continued	))			
Advice Letter No Decision No.		110-E 2-09-018	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT 2/19/2 DRAFT 2/19/2				
108C0			Regulatory Relations							

	PF/8		n Fr	<b>Gas and Electric Com</b> ancisco, California	pany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31973-E*		
				GENER		RIC RULE NO CILITY INTER		IONS	Sheet 11	3		
	G.	ENC	SIN	EERING REVIEW	DETAILS	(Cont'd.)				(N)		
		1.	1. INITIAL REVIEW SCREENS (Cont'd.)									
			j. Screen J: Is the Gross Rating of the Generating Facility 11 kVA or I less?									
I		<ul> <li>If Yes (pass), skip Screens K, L- and M: and Initial Review is complete.</li> </ul>										
				• If No (fail), cor	ntinue to S	creen K.						
				Significance: The fault current levels Distribution Provic	and any p	potential line	overvoltag	ges from loss	on of			
	<ul> <li>k. Screen K: Is the Generating Facility a Net Energy Metering (NEM)</li> <li>Generating Facility with nameplate capacity less than or equal to 500</li> <li>kW?</li> </ul>											
				• If Yes (pass),	skip scree	n L and cont	inue to scr	een M.				
				• If No (fail), cor	ntinue to so	creen L.						
	Significance: The purpose of this Screen is solely to facilitate I interconnection of NEM facilities below this size threshold by allowing I such facilities to bypass Screen M. The use of nameplate capacity I expedites the Initial Review analysis. In Supplemental Review, the net export will be analyzed. (N)											
									(Conti	nued)		
		Letter		4110-E		Issued by		Date Filed		2/19/2013		
	ecisio 09C0	on No.		12-09-018	V	ian K. Cherry ice President ılatory Relations		Effective Resolution No.				

PG/S		<b>: Gas and Electric Comp</b> ancisco, California	any Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		GENERA	ELECTRIC RULE NO		IONS	Sheet 119
G.	ENGIN	EERING REVIEW I	DETAILS (Cont'd.)			(N)
	1. INI <sup>-</sup>	TIAL REVIEW SCR	EENS (Cont'd.)			
	I.	Screen L: Transm	ission Dependency an	d Transm	ission Stability	Test
		or posted, transien Generating Facility Provider, with earli requests. Where (	ion Request for an are t <u>/dynamic</u> stability limit has interdependencie er-queued Transmissic i) or (ii) above are met quest to the Transmiss	ations, or s, known on System , the impa	(ii) the propos to Distribution interconnection cts of this	ed I on I
		• If Yes (fail), Su	pplemental Review is r	equired.		
		• If No (pass), co	ontinue to Screen M.			
		identified as having	cial consideration must current or future (due quests) grid stability co	to curren	to those areas tly-queued	
	m.	Section less than	aggregate Generating 15% of Line Section penatic sectionalizing dev	eak load fo	pacity on the L or all line section	Line I Dns I
		• If Yes (pass), Ir	nitial Review is comple	te.		
		• If No (fail), Sup	plemental Review is re	equired.		
		Significance:				
		minimal impac	on of Generating Facili t on the operation and ovider's Distribution Sy	load resto	/ will have a pration efforts o	of (N)
						(Continued)
	Letter No:		Issued by		Date Filed	DRAFT 2/19/2013
Decisio 110C0	n NO.	12-09-018	<b>Brian K. Cherry</b> Vice President Regulatory Relations		Effective Resolution No.	



Cancelling

Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No. Original

31975-E\*

					GENEF		CTRIC RUL ACILITY IN	E NO. 21 TERCONNEC	TIONS	Shee	et 120
	G.	EN	GIN	EEF	RING REVIEW	/ DETAIL	S (Cont'd.)	)			(N)
		1.	INI	ΓIΑI	L REVIEW SC	REENS (	(Cont'd.)				İ
			m.	Se	creen M: Is the ection less than ounded by auto	1 15% of	Line Section	on peak load	for all line s	the Line sections	
				2.	The operatin Facility capa Provider's Di requiring add	city may stribution	be differen i System w	t since the in ill no longer	npact on Dis	stribution	   ;   
				Fac	e purpose of th cility needs add iting the penet	ditional st	tudy and is	not intende	d as justifica		
		2.	SU	PPL	_EMENTAL RE	EVIEW S	CREENS				
			Sci det Stu abl	reer erm idie e to e un	upplemental R ns are not pass nine the require s are required dentify the no necessarySo te the impact of	sed, a qu ements to . In certa ecessary ome exar	ick review address f ain instanc solution a nples of so	of the failed the failure(s) es, Distributi nd determine plutions that r	Screen(s) v or that Deta on Provider that Detail	vilÍ ailed <sup>-</sup> may be ed Studie	
			1.	Re	eplacing a fixed	d capacito	or bank wit	h a switched	capacitor b	ank.	
			2.	Ad	ljustment of lin	e regulati	ion setting	5.			
			3.	Sir	mple reconfigu	ration of	the distribu	ition circuit.			(N)
										(	(Continued)
	Advice Decisi				110-E 2-09-018		lssued by Brian K. Che	rrv	Date Filed Effective	DR	AFT 2/19/2013
	111C0				0.0		Vice Preside egulatory Rela	nt	Resolution	No.	

I

l

	Gas and Electric Company ancisco, California	Cancelling	Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet						
		LECTRIC RULE NO			Sheet 121					
G. ENGINI	EERING REVIEW DET	AILS (Cont'd.)			(N)					
2. SUI	PPLEMENTAL REVIEW	V SCREENS (Con	ťd.)							
a.	Screen N: Penetratio	on Test								
	Where 12 months of lir be calculated, can be e a power flow model, is the Line Section less tl sections bounded by a Generating Facility?	estimated from exis the aggregate Ger nan 100% of the m	sting data, nerating F ninimum lo	or determined t acility capacity o bad for all line	from I on I I					
	• If yes (pass), contin	nue to Screen O.								
	<ul> <li>If no (fail), a quick review of the failure may determine the requirements to address the failure; otherwise Electrical Independence Tests and Detailed Studies are required. Continue to Screen O. (Note: If Electrical Independence tests and Detailed I Studies are required, Applicants will continue to the Electrical Independence Tests and Detailed Studies after review of the remaining Supplemental Review Screens, if Applicant elects to I proceed.)</li> </ul>									
	Note 1: If none of the a to Screen N.	bove options are a	available, t	this screen defa	ults I					
	Note 2: The type of Ge account when calculati Section minimum load solar Generating Facili load will be used (i.e., Facilities and 8 am to 6 tracking systems), whil other Generating Facil	ng, estimating, or or relevant for the ap ties with no battery 10 am to 4 pm for 6 pm for solar Geno e absolute minimu	determinin plication o storage, ixed pane erating Fa	ng circuit or Line of this screenF daytime minimu I solar Generati cilities utilizing	e I For I Im I ing I					
	Note 3: When this scr Facility, the net export Point of Common Cou System will be conside	in kW, if known, <del>th</del> oling into Distributio	<del>at <u>which</u> r</del> on Provide	nay flow across er's Distribution	the I (N)					
					(Continued)					
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed	DRAFT 2/19/2013					
112C0		Vice President Regulatory Relations		Resolution No.						

Pf&	Sa	n Fra	Gas and Electric Com ncisco, California	pany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31977-E*
			GENER	ELECTRI ATING FACIL	<b>C RULE NO</b> ITY INTER		IONS	Sheet 12	2
G.	ENG	INE	ERING REVIEW	DETAILS (C	ont'd.)				(N)
	2. 3	SUF	PLEMENTAL RE	VIEW SCRE	ENS (Con	ıťd.)			i
	á	a.	Screen N: Pene	etration Test	(Cont'd.)				i
			Note 4: Distributio Generating Facilit Facility capacity k data.	y capacity for	r purposes	s of this sc	reen Generatir	ng	
			Note 5: NEM Ger to 500 kW that ma Distribution Provic studied in the Tran under the Indeper	ay flow acros ler's Distribut nsmission Cl	s the Point tion or Tra uster Stud	t of Comm nsmission	on Coupling in System will no	ito ot be	
			Significance: Pen result in power flo have a minimal im protection of the D	w from the ci pact on equi	rcuit back pment loa	toward the	e substation wi	es not II	
	ł	<b>)</b> .	Screen O: Powe	er Quality and	d Voltage 1	Fests			
			In aggregate with Section, distributio	existing Gen on circuit, and	erating Fa d/or substa	cility capa ation.	city on the Line	9	
			voltage regulation compliance w	ation on the I /ith Commiss	line section sion Rule 2	h can be n 2 and/or C	Review that th naintained in onservation Vo tem conditions	oltage	
				ation is withi	n acceptat	ole limits a	Review that the start the start of the second secon		I I (N)
								(Cont	inued)
Advice Decisio		No:	4110-Е 12-09-018	Brian	sued by <b>K. Cherry</b> President		Date Filed Effective Resolution No.	DRAFT	2/19/2013
113C0					ory Relations		Resolution NO.		

	c Gas and Electric Co rancisco, California	ompany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31978-E
	GENE	ELECTR ERATING FACI	<b>RIC RULE NO</b>		IONS	Sheet 123	3
G. ENGIN	EERING REVIE	W DETAILS (	Conťd.)				(N)
2. SU	PPLEMENTAL F	REVIEW SCR	EENS (Con	ťd.)			
b.	Screen O: Po	wer Quality ar	nd Voltage T	ests			
	In aggregate wit	th existing ger	neration on	the line se	ction (Cont'd.)	)	
	c) Can it be d harmonic le Coupling (F	evels meet IEI	hin the Sup EE 519 limit	plemental is at the Po	Review that th pint of Commo	ne on	
	If yes to all o	of the above (	pass), conti	nue to Scr	een P.		
	determine th Electrical In Continue to Detailed Stu Electrical In	ne requiremen dependence T Screen P. (No idies are requ	its to addres ests and Do ote: If Electr ired, Applica ests and Do	ss the failu etailed Stu ical Indepo ants will co etailed Stu	idies are requi endence tests	ired. and	
	Significance: A experienced by System caused	other Custom	ers on Distr	ibution Pro	ovider's Distrik		
С.	Screen P: Sat	ety and Relia	bility Tests				
	Does the locatio generation capa reliability that ca Study?	acity on the Lir	ne Section o	create imp	acts to safety		
	address the	review of the f failure; otherv idies are requ	vise Electric	al Indepe	the requiremendence Tests tion G.3.	ents to and	
	• If no (pass),	Supplementa	I Review is	complete.			(N)
						(Contir	nued)
Advice Letter No: Decision No.	4110-E 12-09-018		ssued by n K. Cherry		Date Filed	DRAFT 2	2/19/2013
114C0	12 00 010	Vic	e President atory Relations		Resolution No.		

		<b>and Elec</b> co, Califor	<b>tric Company</b> nia	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		·E'
		(		CTRIC RULE NO ACILITY INTER		IONS	Sheet 124	
G. ENGIN	EER	ING RE	VIEW DETAIL	S (Cont'd.)			(N)	
2. SU	PPL	EMENT	AL REVIEW S	CREENS (Con	ťd.)			
c.	Scr	een P:	Safety and R	eliability Tests	(Cont'd.)			
	that	may af	e: In the safet fect the nature ide, but are no	y and reliability and performan t limited to:	test, there ice of an li	are several fanterconnection	ictors I	
	1.	Genera	ating Facility e	nergy source				
	2.	Modes	of synchroniza	ation				
	3.	Unique	e system topolo	ogy				
	4.	Possib	le impacts to c	ritical load cust	omers			
	5.	Possib	le safety impa	cts				
	stuc	ly requi	rements are ne	of these factors eeded. The follo isidered under t	owing are	some example		
	1.	domina		n have significa I number of cus ˈs)?				
	2.	Is there feeder		neven distributio	on of loadi	ng along the		
	3.	the sub distribu	ostation (i.e. <2 ution line from	erating Facility le 2.5 electrical line the substation to e (i.e. 600A clas	e miles), a o the cust	nd is the		
							(Continued)	
Advice Letter No: Decision No.		10-Е 2-09-018		Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT 2/19/201	3
115C0			F	Regulatory Relations				-

PGa			<b>Gas and Elec</b> ancisco, Califor	t <b>ric Company</b> mia	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31980-E
			(	ELEC GENERATING FA	TRIC RULE NO		IONS	Sheet 125	5
G.	ΕN	IGINI	EERING RE	EVIEW DETAIL	S (Cont'd.)				(N)
	2.	SUI	PPLEMENT	TAL REVIEW SO	CREENS (Con	ťd.)			
		C.	Screen P:	Safety and Re	liability Tests	(Cont'd.)			
			prever	he Generating F It reconnection of and frequency	of the generato	or to the s	ystem until sys	tem	
			Facility Facility	rational flexibility /, such that trans / to a neighborir ads or voltage is	sfer of the line	section(s	) of the Genera	ating gger	
				he Generating F		Certified a	nti-islanding		
	3.	DE	TAILED ST	UDY SCREENS	3				
		a.		Is the Interconr nission System?		st electrica	ally Independe	nt of	
			based on l interconne Request to located at anticipated If Distribut described have pass Independe determine Applicant	n Provider, in co knowledge of the cotion requests u to the Distribution a point of interc d to require or co ion Provider det above, then the ed Distribution F ence for the CAI s that interdepen may be studied s set forth in Se	e interdepende inder any tariff onnection suc- portribute to the ermines that n Interconnectio Provider's Dete SO Controlled ndencies exist under the Trar	encies with f, whether sufficient h that it is e need for no interdep on Reques ermination Grid. If E as descri	h earlier-queue the Interconne MW size and reasonably Network Upgro bendencies exi st will be deem of Electrical Distribution Pro bed above, the	ed ection ades. st as ed to vider	- - - - - - - - - - (N)
Advice			4110-E 12-09-018		lssued by Brian K. Cherry		Date Filed Effective	(Contir DRAFT 2	,
116C0		<i>.</i>	12-03-010		Vice President gulatory Relations		Resolution No.		

		•
PFs	E	S L

ſ

**Pacific Gas and Electric Company** San Francisco, California U 39

Cancelling

Original Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.

31981-E\*

	GENERAT	ELECTRIC RULE NO. 21 ING FACILITY INTERCONNEC	TIONS	Sheet 126
G. ENGINE	ERING REVIEW D	ETAILS (Cont'd.)		(N)
3. DET	AILED STUDY SCF	REENS (Cont'd.)		
	Screen Q: Is the Int the Transmission S	erconnection Request electric ystem? (Cont'd.)	cally Independe	nt of I
	conduct the Determ Controlled Grid as s Tariff. The results of flow, and short-circu of Appendix Y to the	r will coordinate with the CAIS ination of Electrical Independ set forth in Section 4.2 of App of the incremental power flow, uit current contribution tests so e CAISO Tariff will determine quest is electrically independe	ence for the CÁ endix Y to the C aggregate pow et out in Section whether the	NISO I CAISO I ver I n 4.2 I I
	<ul> <li>If Yes (pass), co</li> </ul>	ntinue to Screen R.		
	<ul> <li>If No (fail), proce</li> </ul>	eed to Section F.3.c.		
	equal to 500 kW Coupling will no	enerating Facilities with net ex / that may flow across the Poi t be studied in the Transmissi ay be studied under the Indep	int of Common on Cluster Stud	1
	interdependent with other interc System interder (i.e., be found to queued Distribu interconnection	enerating Facilities that are <u>e</u> with the Transmission System connection requests that have bendencies. It is possible to p b have no electrical interdepen tion System and/or Transmiss requests as set out above), b udy Process, and still trigger a	n must be studie Transmission bass this Screer ndencies with e sion System e studied under	n Q I arlier- I r the I work (N)
Advice Letter No:	4110-E	Issued by	Date Filed	(Continued) DRAFT 2/19/2013
Decision No.	12-09-018	Brian K. Cherry Vice President	Effective Resolution No.	
117C0		Regulatory Relations		

DCe		P S
	٦	U

**Pacific Gas and Electric Company** San Francisco, California J 39

Cancelling

Original Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.

31982-E\*

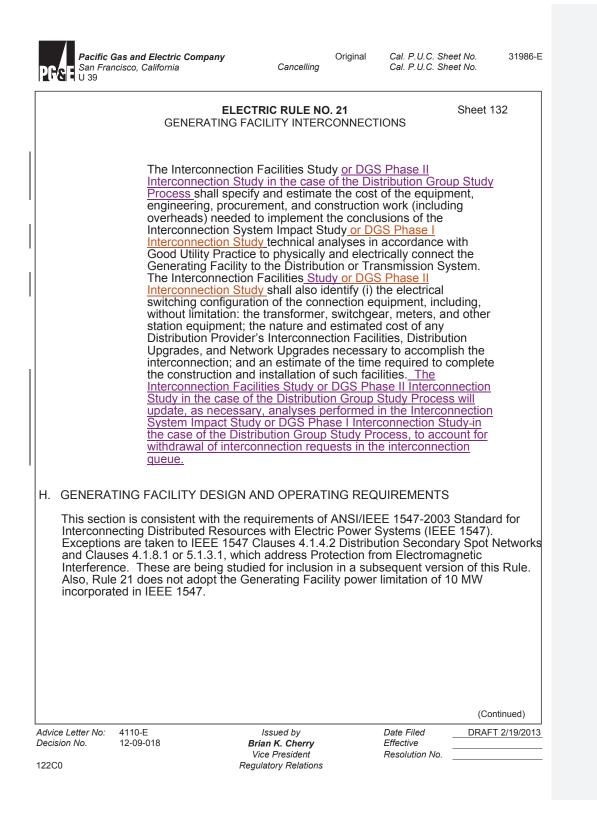
118C0		Vice President Regulatory Relations	Resolution No.	
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry	Date Filed Effective	DRAFT 2/19/2013
				(Continued)
	Significance: Inte earlier-queued int	tinue to the Distribution Group erconnection Requests that are erconnection requests that ha alify for independent study.	e electrically relat	ted to
	• If Yes (pass), o	continue to Independent Study	y Process	
	For Interconnection the CAISO Contro Interconnection R relationships betw queued interconne Process, the Inde studied under pre to complete their in Provider may con and/or short-circu Base Case data, o judgment to deter studied independe the Interconnectio independence on to earlier-queued interconnection st	on Requests that are electrica olled Grid, Distribution Provide equest for known or reasonat veen the Interconnection Requection requests in the Distribut pendent Study Process, or int decessor interconnection provide respective interconnection stud duct incremental power flow, it duty tests using existing inter- overall system knowledge, an mine whether an Interconnect on Request being evaluated for the Distribution System may linterconnection requests that udies, then it fails the evaluat the Distribution System.	er will evaluate ea oly anticipated uest and any earl ition Group Study terconnection req cedures that have idies. Distribution aggregate power erconnection stud d engineering tion Request can on ection request or electrical be electrically reli- have yet to com	ach     I       ier-     I       juests     I       juests     I       je yet     I       flow,     I       flies,     I       be     I       s.     If       If     I
b.	earlier-queued an	nterconnection Request indep d yet to be studied interconne the Distribution System?		
3. DET	TAILED STUDY SC	CREENS (Cont'd.)		
G. ENGINE	ERING REVIEW	DETAILS (Cont'd.)		(N)
	GENER	ELECTRIC RULE NO. 21 ATING FACILITY INTERCONNE	ECTIONS	Sheet 127

PG&E		<b>Gas and Electric Co</b> cisco, California	ompany	Cancelling	Original	Cal. P.U.C. Sh Cal. P.U.C. Sh		31983-E	1		
		GENE	ELECTRI ERATING FACIL	<b>C RULE NO</b> ITY INTER		IONS	Sheet 12	28			
		ERING REVIEN AILED STUDY		-				(N)   			
		ndependent St nterconnection		nd Distribu	ition Grou	p Study Proce	<u>SS</u>				
	영정의민준이 이미아이 이 비원이 이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비원이 이 비	The Interconnect by stem Impact <u>o as DGS Phas</u> <u>hterconnection</u> <u>rocess</u> . The In- racilities, Distritu- ecessary to mi- didress short ci- psociated with Provider anticip or the Interconne- Jugrades, then luring the study <u>the estimated on- terconnection</u> <u>study shall be a</u> <u>broup pro rate of the gawatt increa- benerating Fac- therconnection</u>	Study and an I se I Interconne Study, respec interconnection bution Upgrade itigate thermal ircuit, <u>dynamic</u> the requested bates that Relia nection Studies Distribution Pr y process as se costs of short of facilities, if any assigned to all on the basis of g Facility. The irconnection far assigned to all on the basis of proposed new ase in the gene cility as listed by	nterconnection Study tively, for t Studies w es and Reli overloads /-stability a Interconne bility Netwidentify th ovider will et forth in S ircuit relate /, identified Interconnection the short of estimated cilities, if a Interconnection the maxin Generating erating cap	ction Facily and DGS he Distribu- iill identify iability Ner and volta, and volta, and reliabil ection Ser ork Upgra e need for coordinat Sections F ed upgrad d through action Req circuit dut I costs of a ny, identify num mega o Facility of a	lities Study, re <u>S Phase II</u> <u>ution Group S</u> Interconnection twork Upgrade ge violations, a ity issues vice. If Distribu- des will be rear r Reliability Ne e with the CAI <u>.3.b or</u> F.3.d a es and shared a Distribuion C <u>uests in that S</u> <u>y contribution</u> <u>all other upgra</u> <u>ied through a</u> <u>uests in that S</u> <u>awatt electrica</u> or the amount <u>ach existing</u>	udy on es and ution quired, twork SO bove. So bove.		*	Formatted: Indent: Left: 0.9" Formatted: Font: 12 pt Formatted: Indent: Left: 1.25"	
							(Con	tinued)			
Advice Le Decision 119C0		4110-E 12-09-018	<b>Brian</b> Vice	sued by <b>K. Cherry</b> President fory Relations		Date Filed Effective Resolution No.	DRAFT	2/19/2013	-		

P		fic Gas and Electric Company Francisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
			ELECTRIC RULE NO		IONS	Sheet 129
G.	ENGIN	EERING REVIEW DET	AILS (Cont'd.)			
	3. DE	TAILED STUDY SCREE	ENS (Cont'd.)			
	C.	Independent Study Pro Interconnection Studies		on Group	Study Proces	<u>s</u>
		i) Interconnection Sys	stem Impact and D	GS Phase	e I Interconnec	<u>stion</u> Study.
		(1) Scope of the In Interconnection		em Impac	t <u>and DGS Pr</u>	<u>ase l</u>
		Interconnection Study Process analysis, a stat and any other s localized short Distribution and	ction System Impa <u>a Study in the case</u> may consist of a lo pility/ <u>dynamic</u> analy studies that are dee circuit analysis will d Transmission Sys	of the Ďis calized sh sis, a pow med nece evaluate i tem only	tribution Grou hort circuit ver flow analys essary. The impacts to the with any local	p sis,
		allocated to the that requires th CAISO Control the Transmission Section F.3.c.	ty related Reliability Generating Facilit e upgrades. Short led Grid are approp on Cluster Study P The short circuit du	y <u>or Gene</u> circuit du priately ev rocess as ity contrib	rating Facilitie ty impacts to t aluated only in set forth in ution of any	he າ
		Process <u>or Disi</u> subsequently ic Process will be circuit duty-rela of the short circ	Requests studied tribution Group Stu dentified in the <u>Trar</u> allocated its <u>their</u> ted Reliability Netv cuit duty contributio	dy Proces smission pro rata sh vork Upgra	<u>s</u> that are Cluster Study hare of the sho ades on the ba	prt
		Facility.				
						(Continued)
	ice Letter N ision No.	o: 4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
1200	0		Vice President Regulatory Relations		Resolution No.	

	PG&F	Com Eres	Gas and Electric Co ncisco, California		Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
			GENE	ELECTRIC RATING FACILIT			IONS	Sheet 130
	G. E	NGINE	ERING REVIE	N DETAILS (Co	nťd.)			(N)
	3	. DET	AILED STUDY	SCREENS (Cor	nťd.)			
			ndependent Stu connection Stu	udy Process <u>and</u> dies (Cont'd.)	l Distribut	on Group	Study Proces	is I
		i		tion System Imp tion_Study. (Cor		and DGS	<u>S Phase I</u>	
			(1) Scope of Phase I	of the Interconne Interconnection	ection Sys Study. (C	tem Impa Cont'd.)	ct <u>Study and E</u>	DGS
			Intercor Study F based, requirer request indicatio necessa	erconnection System <u>process</u> , shall star- state the results ment or potentian ed Interconnection on of the cost and ary to correct and plement the Inter-	n the case ate the ass of the and l impedim on Servic of length o y problem	of the Ďi sumptions alyses, an ents to pr e, includir of time tha s identifie	stribution Grou a upon which it ad provide the oviding the ag a preliminar at would be	up I tis I I y I
			The Inte Intercor Provide and Rel of the Ir faith est	erconnection System nection Study s r's Interconnection liability Network nterconnection F timate of cost re ction time require	stem Impa hall provid on Faciliti Upgrades Request al sponsibilit	act <u>Study</u> de a list of es, Distrik that are i ong with a	f Distribution oution Upgrade required as a r a non-binding	es, esult
								(Continued)
	Advice Le Decision		4110-E 12-09-018	Brian K	ed by 5. <b>Cherry</b>		Date Filed Effective	DRAFT 2/19/2013
	121C0				resident y Relations		Resolution No.	

PG		o =	Gas and Electric Incisco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31986-E
			GEN	ELECT	<b>RIC RULE NO</b> CILITY INTER		IONS	Sheet 131	
G.	EN	GINEE	RING REVIE	W DETAILS (	(Cont'd.)				
	3.	DETA	ILED STUDY	SCREENS (	Conťd.)				
			dependent St es (Cont'd.)	udy Process	and Distributi	on Group	Study Process	<u>s</u> Interconr	ection
		ii)	Interconneo Interconneo	ction Facilities <u>ction </u> Study.	Study and D	GS Phase	<u>e II</u>		
				and Purpose hase II Interce					
			not me Phase Interco Applica resourc require Interco Study a Interco	et the require I Interconnection Requition Window, tes on a reased d time frame, nnection Custa as to the sche nnection Stud th an explana	d time frame tion Study du uests in the E study comple onable basis the Distributi tomer(s) with dule status of ly and provide	for completed to the la Distribution exity, or un to perform on Providenthe Dist f the DGS e an estim	mines that it v eting the DGS rge number of a Group Study navailability of a the study in t er shall notify f ribution Group Phase I nated completion y additional tin	he the o	
			Applica relevan Interco stability	nt(s) all supp it pre-Intercor nnection Req databases for subject to cor	orting docum nection Requuest power floor or the DGS P	entation, v uest and p ow, short o hase I Inte	circuit and		
								(Contin	ued)
Advic Decis		ter No:	4110-E 12-09-018	D	lssued by rian K. Cherry		Date Filed Effective	DRAFT 2/	19/2013
122C			12 00 010	١	/ice President ulatory Relations		Resolution No.		



PGa			<b>and Electric Comp</b> to, California	any	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
			GENERA	ELECTRIC	C RULE NO		IONS	Sheet 133
Н.	GENE (Cont		NG FACILITY	DESIGN AN	ID OPERA	TING RE	QUIREMENTS	S (N)
			RAL INTERCON REMENTS	NNECTION	AND PRO	TECTIVE	FUNCTION	
	pi ni pi Ir in P	rotect ot the rovidin itercor npact t rovide	otective Functic Distribution Pro Generating Fac og adequate pro nection Faciliti the operation o r's Distribution istribution Prov ers.	ovider's Dist cility. A Pro- otection for i ies. Produce f other Prote and Transm	ribution an ducer shal ts Generat er's Protec ective Func ission Sys	d Transmi I be solely ting Facilit ctive Funct ctions on I stem in a n	ission System responsible fo y and ions shall not Distribution nanner that wo	and I pr I I I buld I
	a	Pro	tective Functio	ns Required				
		Dist follo Dist the Dist prev	nerating Facilitie ribution or Tran wing Protective ribution Provid Generating Fac ribution Provid vent the Genera vider's Distribu	nsmission S e Functions er's Distribu cility to be a er's Distribu ating Facility	ystem sha to sense a tion or Tra utomatical tion or Tra v from bein	II be equip abnormal c nsmission ly disconn nsmission g connect	ped with the conditions on System and c ected from System or to red to Distribut	ause I I I
		(1)	Over and und frequency trip		ip functior	is and ove	r and under	
		(2)	Distribution of Generating Fa Distribution of Provider's Dis within the AN 106 volts to 1	enerating Fa r Transmissi acility from r r Transmissi stribution Sy SI C84.1-19 27 volts (on uge of 59.3 F	acility from on System econnectir on System stem servi 95 Table 1 a 120 volt Iz to 60.5	n energizin n circuit an ng with Dis n unless D ce voltage l Range B basis), ind	g a de-energiz d to prevent the stribution Provisitribution and frequence voltage Range	ne I ider's I y is I e of I
								(Continued)
Advice Decisio	Letter N on No.		10-E -09-018	Brian	sued by <b>K. Cherry</b> Brosident		Date Filed Effective	DRAFT 2/19/2013
122C0					President ory Relations		Resolution No.	

PG&	50	n Er	Gas and Electric Compa ancisco, California	ny Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31987-E
			GENERA	ELECTRIC RULE NO		TIONS	Sheet 13	4
H.	GEN (Co		RATING FACILITY E .)	8	(N) I			
	1.		NERAL INTERCON QUIREMENTS (Cor	NECTION AND PRO	DTECTIVE	FUNCTION		
		a.	Protective Function	s Required (Cont'd.)				i
			the formation of Distribution Pro-	revent the Generatin of an Unintended Isla ovider's Distribution S of an Unintended Isla	nd, and ce System wi	ease to energiz	ze	
			Distribution System System circuit to wh Generating Facility Distribution circuit p	cility shall cease to er for faults on Distribu nich it is connected (I shall cease to energi rior to re-closure by equipment (IEEE 15	tion Provid EEE 1547 ze Distribu Distributio	der's Distributi '-4.2.1). The ution Provider' n Provider's	on	
		b.	Momentary Paralle	ling Generating Facil	ities			
			used to transfer Pro Distribution or Tran	rovider's approval, th oducer's loads from I ismission System to u of the Protective Fu	Distribution Producer's	n Provider's s Generating F	acility	       (N)
							(Cont	nued)
Advice Decisio		No:	4110-E 12-09-018	lssued by <b>Brian K. Cherry</b>		Date Filed Effective	DRAFT	2/19/2013
123C0				Vice President Regulatory Relations		Resolution No.		

PG&	San F	c Gas and Electric Comj rancisco, California	bany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31988-E
		GENER/	ELECTRIC ATING FACIL	C RULE NO		IONS	Sheet 1	35
	GENEI (Cont'o	RATING FACILITY I.)	DESIGN AN	ID OPERA	TING REC	QUIREMENT	S	(N) 
		ENERAL INTERCO EQUIREMENTS (Co		AND PRO	TECTIVE	FUNCTION		
	C.	Suitable Equipme	nt Required					
		Circuit breakers of Common Coupling Article 100, the De suitable for their in interrupting the ma location. Produce shall be designed shall not potentiall Distribution Provid Generating Facilit 220% of the Inter 4.1.8.3). The Inter withstand voltage environments defi C37.90.1-2002 as 4.1.8.2).	g (PCC) mus sfinitions Sec itended appl aximum avai r's Generatir so that the fa y compromis ler's Distribur y paralleling- connection Fa rconnection fa and current and current	t be Certifi tion of the ication. The lable fault mg Facility ailure of ar se the safe tion and The device sha acility rate Facility sha surges in a Std C62.4	ed or "List National I his include current ex and Interc by single d ty and reli ransmissic all be capa d voltage ( all have the accordance 1.2-2002 c	ed" (as define Electrical Cod s being capal pected at the onnection Fa- evice or comp ability of on System. T bble of withsta IEEE 1547- e capability to e with the or IEEE Std	ed in le) as ble of ir cilities ponent he unding	
	d.	Visible Disconned	t Required					
		When required by Producer shall fur isolating switch (c Distribution Provis to isolate the Gen Distribution or Tra rated for load bre	mish and ins or a compara der and Prod perating Facil ansmission S	tall a gang ble device lucer) near lity from Di system. Th	ed, manua mutually a the Point stribution ne device o	ally-operated agreed upon l of Interconne Provider's does not have	ection	         (N)
							(Con	tinued)
Advice L Decision	etter No. No.	4110-E 12-09-018		ued by <b>K. Cherry</b>		Date Filed Effective	DRAFT	2/19/2013
124C0			Vice	President ory Relations		Resolution No.		

PGs		Francisc		<b>lectric Company</b> lifornia	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31989-E*
					ECTRIC RULE NO		TIONS	Sheet 136	3
Н.	GEN (Cont		NG I	FACILITY DESIG	SN AND OPERA	TING RE	QUIREMENTS	5	(N) I
				INTERCONNEC <sup>*</sup> IENTS (Cont'd.)	TION AND PRO	TECTIVE	FUNCTION		
	С	I. Vis	ible l	Disconnect Requ	ired (Cont'd.)				
		The	e dev	vice must:					
		(1)	(Th	ow visible verifica his requirement n serve contact sep	nay be met by o			shed.	
		(2)		lude markings or sed positions.	signage that cle	early indic	ates open and		
		(3)	a)	quickly and con Provider persor inspection, test Distribution Pro without obstacle	purposes be ca iveniently 24 ho nnel for construc- ing or to isolate vider's Distribut es or requiring ecial permission	urs a day ction, oper the Gene ion or Tra those see	by Distribution ration, mainten rating Facility finsmission Sys eking access to	ance, rom tem	
		(3)	b)		ousiness hours. ovide notice to (	Distributi	on Provider, wl	nere	
		(4)	be o	capable of being	locked in the op	en positic	n		(N)
								(Contir	nued)
Advice Decisio	Letter N		10-E -09-01	18	lssued by Brian K. Cherry		Date Filed	DRAFT 2	/19/2013
125C0		12			Vice President Regulatory Relations		Resolution No.		

PG&	50	n Era	Gas and Electric Cor ancisco, California	npany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		31990-E
			GENER	ELECTR RATING FACII	i <b>c Rule No</b> Lity Inter		IONS	Sheet 13	7
	GEN (Cor		ATING FACILIT	Y DESIGN AI	ND OPERA	TING RE	QUIREMENTS		(N) I
		-	NERAL INTERC QUIREMENTS ((		AND PRO	TECTIVE	FUNCTION		
		d.	Visible Disconne	ect Required	(Cont'd.)				
			installation. signage mus location prov If the switch signage with	ation approve If the device st be installed viding a clear is not access contact infor	ed by Distri is not adjac l at a Distril descriptior sible outside mation and	bution Pro cent to the bution Pro of the lock e the lock d a Distrib	ovider prior to PCC, perman ovider approved cation of the de	ent I	
							ers totaling one this requireme		
	(	Э.	Drawings Requir	ed					
			Prior to Parallel Generating Faci Protective Funct equipped with P approved by Dis Certified Equipm previously appro-	lity, Distributi tion and contr rotective Fun tribution Prov- nent may sati	on Provide rol diagram ctions and vider for sys sfy this req	r shall app s. Genera a control s stem-wide uirement l	prove Producer ating Facilities scheme previo application or	's usly only	
		f.	Generating Faci	lity Condition	s Not Ident	ified			
			In the event this for a particular C may agree upon	Generating Fa	acility, Distr				I I (N)
								(Contii	nued)
Advice		No:	4110-E		sued by		Date Filed		2/19/2013
Decisio 126C0	n NO.		12-09-018	Vice	n K. Cherry President tory Relations		Effective Resolution No.		

	c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31991-E
		ECTRIC RULE NO		ONS	Sheet 13	8
H. GENEI (Cont'o	RATING FACILITY DESI	GN AND OPERA	TING REC	QUIREMENTS	8	(N) I
2. PR	EVENTION OF INTERFE	ERENCE				
su or op fac tak rea tak fac Pr Dis wit ca	oducer shall not operate of perimpose a voltage or cr Transmission System that erations, service to Distri- cilities. If such interference as contractive action at its asonable time to do so by the corrective action in a ti cilities causing interference ovider may, without liabili- stribution Provider's Distri- th Section D.9 of this Rule used by its operation, eac teria:	urrent upon Distril at interferes with E bution Provider C ce occurs, Produc own expense after or Distribution Prov mely manner, or or ce without restriction ty, disconnect Pro- ibution or Transm e. To eliminate ur	bution Pro Distributior ustomers, er must di r being giv ider. If Pr continues con or limit, oducer's fa ission Sys ndesirable	vider's Distrib or communic ligently pursu ven notice and oducer does i to operate the , Distribution collities from tem, in according interference	ution ation e and d not e dance	
a.	Voltage Regulation					
	The Generating Facility PCC while in parallel wit The Generating Facility customers to go outside A (IEEE 1547-4.1.1).	h Distribution Pro shall not cause th	vider's Dis e service	stribution Syst	em. er	       (N)
					(Cont	inued)
Advice Letter No. Decision No. 127C0	: 4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.		2/19/2013

PGa			c Gas and Electric Com rancisco, California	pany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
			GENER		Ric Rule NC			Sheet 139
H.		ENEI onť c	RATING FACILITY I.)	DESIGN A	ND OPERA	TING REG	QUIREMENTS	(N)   
	2.	PR	EVENTION OF IN	TERFEREN	ICE (Cont'd	.)		i
		b.	Voltage Trip Setti	ng				
			The voltage range Protective Function regulation Function Distribution Provide time whenever the voltage operating respond to voltage connected.	n and are n n. Generat ler's Distrib voltage at range. The	not intended ing Facilities ution Syster the PCC de Protection	to define or s shall cean n within the eviates from Function s	or imply a volta ise to energize e prescribed tr n the allowable shall detect and	age I ip I e I d I
			i) Generating Fa	acilities (30	kVA or less	)		
			be capable of experienced of plus to minus volts, on a 12 settings at that that minimize on a 120-volt for voltage dr Voltage may	operating v on Distributi 5% of the r 0 volt base) e generator s nuisance base (88%- op between be detected on. Howeve	within the vo on Provider nominal volta ), at the serv terminals m tripping betw -110% of no the genera I at either the er, the voltag	Itage rang 's Distribu' age (e.g. 1 vice panel ay be sele veen 106 minal volt tor termina e PCC or f ge range a	tion System fro 14 volts to 126 or PCC. The t ected in a man volts and 132 v age) to comper als and the PCC the Point of it the PCC, with	I           bm           bit <tr< td=""></tr<>
								(Continued)
Advice Decisio	on N		4110-E 12-09-018	<b>Bria</b> Vic	Issued by an K. Cherry e President		Date Filed Effective Resolution No.	DRAFT 2/19/2013
128C0	1			Regula	atory Relations			

PG				and Electric Company co, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		Ē
					ELECTRIC RULE NO			Sheet 140	
H.	(C	ont'c	l.) EVE	NTION OF INTER tage Trip Setting (0 Generating Facilit	ies (greater than 30	.) ) kVA)			
				for Generating Fa and may require a absence of such r capable of operati applicable intercon either the PCC or compensated to a	der may have speci cilities with Gross F adjustable operating equirements, the G ing at a range betw nnection voltage. \ the Point of Interco iccount for the volta he PCC, with the go minal.	Ratings gr g voltage Generating veen 88% /oltage sh onnection, age at the	eater than 30 k settings. In the Facility shall b and 110% of th nall be detected with settings PCC. However	VA, I ne I ne I lat I r, the I	
			iii)	the PCC varies fro volts) for the pred Generating Facilit	ution Provider's Dis om and remains ou etermined paramet y's Protective Func ecome isolated fron	tside norr ers set fo tions shal	nal (Nominally rth in Table H-1 Il cause the	120 I	
Advice Decisi 129C0	on N			110-E 2-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No	DRAFT 2/19/2013	<u>3</u> 

San Francisco, Calif U 39	ornia Canc		P.U.C. Sheet No.	
	ELECTRIC RUI GENERATING FACILITY IN			et 141
(Cont'd.)	ACILITY DESIGN AND OF		EMENTS	(N)     
b. Voltage T	rip Setting (Cont'd.)			
iii) Volta	ge Disturbances (Cont'd.)			
	Table H.1: Voltage Trip Settings for G	enerating Facilities*		
	oupling (the ranges below are used to ormal distribution system conditions)	Maximum Trip	Time**	
Assuming 120 Volt Base	% of Nominal Voltage	# of Cycles (Assuming 60 Hz Nominal)	Seconds	
Less than 60 volts	Less than 50%	10 Cycles	0.16 Seconds	
Greater than or equal to 60 volts but less than 106 volts	Greater than or equal to 50% but less than 88%	120 Cycles	2 Seconds	
Greater than 132 volts but less than or equal to 144 volts	Greater than 110% but less than or equal to 120%	60 Cycles	1 Second	
Greater than 144 volts	Greater than 120%	10 Cycles	0.16 Seconds	
set points and trip times from ** "Maximum Trip Time" refi- ceasing to energize Distribu- remain connected to Distribu- "reconnect" feature. The pu- time time time time time time time time	th a Rating greater than 30 kVA, set p those in Table H.1 may be negotiated ers to the time between the onset of t ution Provider's Distribution System. to in Provider's Distribution System to urpose of the allowed time delay is to sturbances. Set points shall not be us	with Distribution Provider he abnormal condition and the Protective Function equipme allow sensing of electrical cond allow for a Generating Facility	e Generating Facility nt and circuits may ditions for use by the to minimize tripping	
			(	Continued)
	Issued by			AFT 2/19/2
vice Letter No: 4110-E cision No. 12-09-018 0C0		e <b>rry</b> Effect ent Resol		AFT 2

PG	8		fic Gas and Electric Company Francisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31995-E
				ECTRIC RULE NO FACILITY INTERC		ONS	Sheet 142	2
Н.		ENE ont'o	RATING FACILITY DESIGI 1.)	N AND OPERAT	ING REQI	JIREMENTS		(N) I
	2.	PR	EVENTION OF INTERFER	RENCE (Cont'd.)				
		C.	Paralleling					
			The Generating Facility sh Distribution or Transmissio fluctuation at the PCC gre- voltage level of Distribution System at the PCC, and m Section L, Certification and tests for evaluating the par	on System withou ater than plus/mi n Provider's Distr neet the flicker re d Testing Criteria	ut causing nus 5% of ibution or quirement , provides	a voltage the prevailing Transmission ts of Section F technology-s	H.2.d.	
		d.	Flicker					
			The Generating Facility sh customers on Distribution System. To minimize the customers (IEEE 1547-4.3 Generating Facility should "Maximum Borderline of Ir (IEEE Recommended Pra in Electric Power Systems necessary to minimize the Customers on Distribution System. Generators may speed (as an induction mo exceeded.	Provider's Distrib adverse voltage 8.2), flicker at the not exceed the I ritation Curve" id ctices and Requi , IEEE STD 519- adverse voltage Provider's Distri be connected ar	pution or T effects exp PCC cause imits defir entified in rements for 1992). The affects exp bution or T ind brought	ransmission perienced by the sed by the IEEE 519-199 or Harmonic C his requirement (perienced by fransmission up to synchro	other 92 Control nt is other	             (N)
							(Contir	nued)
Advic Decis		tter N No.	o: 4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT 2	/19/2013
131C	0		,	Vice President Regulatory Relations		Resolution No.		

	t <b>ific Gas and Electric Company</b> n Francisco, California 9	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO		IONS	Sheet 143
H. GEN (Cor	ERATING FACILITY DESI	IGN AND OPERA	TING RE	QUIREMENTS	6 (N)
2. F	PREVENTION OF INTERF	ERENCE (Cont'd	.)		
e	e. Integration with Distribut	ition Provider's Di	stribution	System Grour	nding I
	The grounding scheme voltages that exceed the Distribution Provider's D coordination of the grou Distribution System (IEB configuration).	e rating of the equ Distribution Syster Ind fault protectior	iipmenť co n and sha n on Distri	onnected to Il not disrupt tl bution Provide	he I
f	. Frequency				
	Distribution Provider co Facility shall operate in Distribution or Transmis and remains outside no amounts set forth in Tat Functions shall cease to Transmission System w	synchronism with sion System. Wh sion System freq rmal (nominally 60 ble H.2, the Gene o energize Distribu	Distribution Denever D Dency at the Dency at	on Provider's istribution Pro- he PCC varies ne predetermin ility's Protectiv ider's Distribu	vider's I s from I ned ve I
					(Continued)
Advice Letter Decision No.	No: 4110-E 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
132C0	12 00 010	Vice President Regulatory Relations		Resolution No.	

Pacific Gas and Electric Col San Francisco, California U 39	mpany	Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
GENEI		RIC RULE NO			eet 144
H. GENERATING FACILIT (Cont'd.)	Y DESIGN /	AND OPERA	TING RE	QUIREMENTS	(N) 
2. PREVENTION OF IN	NTERFERE	NCE (Cont'd	.)		
f. Frequency (Cont	ťd.)				
		le H.2 <u>Trip Settings</u>			
<u>Generating Facility Rating</u> Less or equal to 30kW Greater than 30 kW		Hz Nominal) 3 Hz 60.5 Hz 0 Hz adjustable value Hz and 57 Hz but 57 Hz. [2]	<u>(Assumi</u>	aximum Trip Time [1] ng 60 Cycles per Second) 10 Cycles 10 Cycles 10 Cycles ble between 10 and 18,000 Cycles. [2, 3] 10 Cycles	
<ul> <li>[1] – "Maximum Trip time" refers Facility ceasing to energi Function sensing equipme Transmission System to a purpose of the allowed disturbances to avoid nuis field adjustable by qualifie kVA, set points shall be f Table H.2 may be negotiat</li> <li>[2] – Unless otherwise required of 10 cycles shall be used.</li> <li>[3] – When a 10 cycle Maximun</li> </ul>	ize Distribution P ent and circuits ma allow sensing of e time delay is to sance tripping. S ed personnel). Fo field adjustable an ted with Distribution Pro- dent of the tribution Pro- tect of the tribution Pro- dent of the tribution Pro	rovider's Distributic ay remain connecte lectrical conditions allow a Generatii tet points shall not or Generating Facilin ad different voltage on Provider. rovider, a trip frequ	on or Transmi d to Distributic for use by the ng Facility to be user adjus ties with a Gru set points ar ency of 59.3 H	ssion System. Protective on Provider's Distribution o p "reconnect" feature. The "ride through" short-tern table (though they may be oss Rating greater than 30 nd trip times from those in Iz and a maximum trip time	e
Advice Letter No: 4110-E Decision No. 12-09-018 133C0	Vi	Issued by ian K. Cherry ice President ilatory Relations		Date Filed [ Effective Resolution No	(Continued) DRAFT 2/19/2013

	<b>acific Gas and Electric Con</b> an Francisco, California 39		Cancelling		Cal. P.U.C. S Cal. P.U.C. S		31998-E
	GENEF	ELECTRIC I RATING FACILIT			NS	Sheet 14	5
-	NERATING FACILIT` nťd.)	Y DESIGN AND	OPERATI	NG REQI	JIREMEN	TS	(N) I
2.	PREVENTION OF IN	ITERFERENCE	(Cont'd.)				
	g. Harmonics						i
	When the Genera harmonic current Transmission Sys Table H.3. The h harmonic current Distribution Provi Generating Facili distortion of a Ge criteria as for the	injection into Di stem at the PCC armonic curren s due to harmor der's Distributio ty connected (IE nerating Facility	istribution F C shall not e t injections nic voltage n or Transi EEE 1547-4	Provider's exceed th shall be e distortion mission S 4.3.3.). Ti	Distribution e limits state exclusive of present in ystem with he harmor	ated in of any nout the nic	
		Table H	.3				
	<u>Maximum harmoni</u>	c current distortion	n in percent o	of current (	<u>I) [1,2]</u>		i
	Individual harmonic order, h (odd harmonics) [3] Max Distortion	h<11 11 <u>&lt;</u> h<17 4.0 2.0	17 <u>&lt;</u> h<23 1.5	23 <u>&lt;</u> h<35 0.6		al demand stortion 5.0	
	without the GF, or the between the GF and t	of the maximum Host GF rated current capa he PCC). are limited to 25% of the	city (transformed	d to the PCC v			     (N)
							inued)
Advice Lette Decision No.		lssue Brian K.	Cherry	E	ate Filed ffective	DRAFT	2/19/2013
134C0		Vice Pro Regulatory		R	esolution No.		

PG&			c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		31999-E*
				ELECTRIC RULE NO		IONS	Sheet 146	3
н.		ENEI	RATING FACILITY DE	SIGN AND OPERA	TING RE	QUIREMENTS	8	(N) I
	2.	PR	EVENTION OF INTER	FERENCE (Cont'd	.)			
		h.	Direct Current Injectio	n				
			Generating Facilities s of rated output current Transmission System.	into Distribution Pr	ect curren rovider's E	t greater than Distribution or	0.5%	
		i.	Power Factor					i
			Producer shall provide to maintain the Genera output or a Distribution factor range from 0.9 I conditions. While not inherent reactive powe option may offer reacti correction capacitors of a Generator Interconn Special Facilities agree	ating Facility power Provider specified eading to 0.9 laggin required, for gener. er control capability ve power support i on its Distribution o ection Agreement of	factor nearing, based ators that Distribution the form Transmisor an Adde	ar unity at rate ctor within a pr on local syste do not have on Provider at of power fact ssion System, ed Facilities or	ed ower m its or under	                             
Advice	Let	ter No	: 4110-E	Issued by		Date Filed	(Contir DRAFT 2	
Decisio			12-09-018	Brian K. Cherry Vice President		Effective Resolution No.		
135C0				Regulatory Relations				

PGs		San Er	<b>c Gas and Electric Com</b> rancisco, California	pany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		32000-E
			GENER	ELECTRI ATING FACIL	<b>C RULE NC</b>			Sheet 14	7
н.		ENE Cont'd	RATING FACILITY I.)	DESIGN AN	ND OPERA	TING REC	QUIREMENTS		(N) I
	3.	TE	CHNOLOGY SPEC	CIFIC REQU	IREMENTS	6			
		a.	Technology Speci	ific Requiren	nents				i
			Three-Phase Sync the Generating Fa with electronic or or responsible for pro- Distribution Provid of either manual o synchronizing is re Short Circuit Cont synchronism prote meet Section H.2. agreed upon by P Generators shall a while operating in System. A power required for Generation	cility circuit I electromecha operly synch ler's Distribu r automatic : equired for a ribution Rati ection is not d (Flicker) (I roducer and automatically parallel with system stab	breakers sh anical contri ronizing its tion or Tran synchronou Il synchronou (SCCR) e required ex EEE1547-4 Distribution regulate p Distribution pilization Fu	all be thre ol. Produ Generatin Ismission Is equipme ous Gener exceeding cept as mi 1.2.5). Unl over facto n Provider, over facto n Provider nction is s	e-phase devic cer shall be ig Facility with System by me ent. Automatic rators that hav 0.05. Loss of ay be necessa less otherwise synchronous r, not voltage, 's Distribution pecifically not	es ans c e a	
		b.	Induction Generat	tors					i
			Induction Generat require a synchron induction Generat Distribution or Tra capacitors or othe undesirable ferro- additional capacito Distribution Provice or an Interconnect	hizing Functi ors can adve nsmission S r techniques resonance. ors) are insta ler must revi e required as	on. Startin ersely impa ystem volta may be ne When thes alled on Pro iew these m	g or rapid ct Distribu age. Corre ccessary a e counter oducer's sin neasures.	load fluctuatio tion Provider's ective step-swi nd may cause measures (e.g de of the PCC Additional	ns on tched view	(N)
Advice					sued by		Date Filed		2/19/2013
Decisio 136C0		10.	12-09-018	Vice	n K. Cherry President tory Relations		Effective Resolution No		

PG&			c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
				ECTRIC RULE NO		IONS	Sheet 148
Н.		ENEI ont'o	RATING FACILITY DESI I.)	GN AND OPERA	TING RE	QUIREMENTS	(N)
	3.	ΤE	CHNOLOGY SPECIFIC	REQUIREMENT	S (Cont'd.)	)	
		C.	Inverters				
			Grid-interactive inverters equipment. Non-grid-int used for Parallel Operat Transmission System.	teractive or "stand	d-alone" ir	iverters shall n	ot be I n or I
	4.	SU	PPLEMENTAL GENERA	TING FACILITY	REQUIRE	EMENTS	
		a.	Fault Detection				
			A Generating Facility wir not cease to energize D Transmission System w Unintended Island shall designed to detect Distri line-to-line and line-to-gr Provider's Distribution o the initiation of a fault.	istribution Provide ithin two seconds be equipped with ibution or Transm round, and cease	er's Distrik of the for Protective ission System to energia	oution or mation of an e Functions stem faults, bo ze Distribution	1 1 th 1
		b.	Transfer Trip				
			For a Generating Facility Transmission System fa formation of an Unintend Provider's Distribution o Distribution Provider ma equivalent Protective Fu	ults (both line-to- ded Island, and c r Transmission S ly require a Trans	line and line and line ase to er ystem with	ne-to-ground) ( nergize Distribu nin two second	ition I
							(Continued)
Advice				Issued by		Date Filed	DRAFT 2/19/2013
Decisio 137C0	on Ne	J.	12-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No	

PF8		_	Gas and Electric Comp ncisco, California	<b>any</b> Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32002-E
			GENERA	ELECTRIC RULE N TING FACILITY INTER		TIONS	Sheet 14	9
н.		NER		DESIGN AND OPERA	ATING RE	QUIREMENTS	6	(N) I
	4.	SUF	PLEMENTAL GEN	NERATING FACILITY	REQUIR	EMENTS (Con	ťd.)	
		C.	Reclose Blocking					
		l	peak load on any a may require additio	te Generating Facility utomatic reclosing de nal Protective Function on some of the autor	vice, Distrons, includ	ibution Provide ling, but not lim	er	
Ι.				TIONS, RESERVATI		NUSED		
	1.	INT	ERCONNECTION	FACILITIES AND DIS	STRIBUTIO	ON UPGRADE	S	
		Rule the	e, Interconnection I PCC and Distributi	in the Generator Inte Facilities connected to on Upgrades shall be tribution Provider at F	Distributi	on Provider's s installed, own	side of	
	2.	THI	RD-PARTY INSTA	LLATIONS				
		optii Fac Dist Inte acco fina tran Dist ther exp des to e sha asso	on, employ a qualit ilities or Distribution ribution Provider, or rconnection Faciliti ordance with Distril I inspection and ac sfer ownership of s ribution Upgrades eafter be owned ar ense. Producer sh ign, administration, nsure compliance Il also be responsite ociated with the tra	I of Distribution Provi fied contractor to provi n Upgrades, to be ow on Distribution Provide es and Distribution U bution Provider's desi ceptance by Distribut such Producer installe to Distribution Providend maintained by Distribution Providend maintained by Distribution Providend with Distribution Providend with Distribution Provident of all costs, includent nsfer of Producer inst des to Distribution Provident for all costs, includent of the producer inst des to Distribution Provident for all costs, includent for	vide and in ned and o pgrades si gn and sp ion Provid ed Intercor er and suc ribution Pr rovider's re- e installation ider's requiling any in talled Inter	stall Interconne perated by f the PCC. Such hall be installed ecifications. U er, Producer sh inection Facilitis h facilities shal rovider at Prod easonable cost on for such fac irements. Prod come tax liabili	ection ch d in pon nall es or l ucer's of ucer's ducer ty,	- - - - - - (N)
							(Cont	inued)
Advice Decisio			4110-Е 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	DRAFT	2/19/2013
138C0				Vice President Regulatory Relations	;	Resolution No.		

PG/8		<b>Pacific Gas and Electric Co</b> San Francisco, California U 39	ompany Cancellir	Original g	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
		GENE	ELECTRIC RULE RATING FACILITY INTE			Sheet 150
Н.		ENERATING FACILIT	Y DESIGN AND OPE	RATING RE	QUIREMENTS	(N) 
	3.	RESERVATION OF	UNUSED FACILITIES	3		 
		Interconnection Fac as Added Facilities change in the opera Producer may elect the terms of its agre reserve idle Intercon Distribution Provide	rishes to reserve Distril ilities or Distribution U for Producer at Produc ation of Producer's Ger to abandon or reserve ement with Distribution nnection Facilities or D r shall be entitled to co the ongoing operation	pgrades inst cer's expens nerating Fac such faciliti n Provider. istribution U ontinue to ch	talled and opera e, but idled by a ility or otherwise es consistent w If Producer elec lpgrades, arge Producer f	i I 2, I ith I ts to I I or I
	4.	REFUND OF SALV	AGE VALUE			
		Facilities for which i constructed and tran	lects to abandon the S t has either advanced nsferred to Distribution om Distribution Provid Facilities.	the installed Provider, P	costs or roducer shall, a	
J.	M	ETERING, MONITOR	ING AND TELEMETEI	RING		
	1.	GENERAL REQUIR	EMENTS			
		J and shall meet all contained in Distribut	ities shall be metered applicable standards o ution Provider's applica r manuals dealing with	of Distributio able tariffs a	n Provider nd published	ion I I I
	2.	METERING BY NO	N-DISTRIBUTION PRO	OVIDER PA	RTIES	
		Metering Equipmen	allation, operation, rea t for Generating Facilit he extent that the Com erformed by others.	ies shall be	by Distribution	. ,
						(Continued)
Advice			Issued by		Date Filed	DRAFT 2/19/2013
Decisio 139C0		<i>b.</i> 12-09-018	<b>Brian K. Cherry</b> Vice President Regulatory Relatio		Effective Resolution No.	

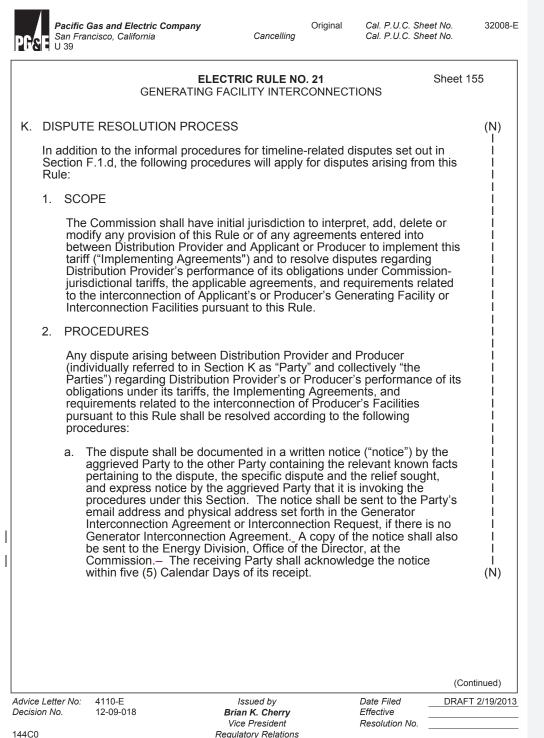
PG&F	San Fra	Gas and Electric Co ncisco, California	ompany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32004-E
		GENE	ELECTR ERATING FAC	RIC RULE NO		IONS	Sheet 1	51
J. N	IETER	ING, MONITOR	ING AND TE	LEMETERI	NG (Cont'	d.)		(N)
3	B. NET	GENERATION	I OUTPUT MI	ETERING				
	Out to d in D Inde	nerating Facility put Metering for etermine application istribution Provi- pendent System ribution System	evaluation, n able standby der's tariffs, to n Operator (C	nonitoring, a and non-by o satisfy ap CAISO) relia	and verific passable o plicable C bility requ	ation purposes charges as de alifornia	s and fined	
	Ger effe opt Dist star requ Dist may Dist	vever, Generatin ieration Output ctive options, fo erator data to D to have Distribu ribution Provide dby and non-by irements. How ribution Provide v elect to install ribution Provide comer's expense	Metering whe r Producer/Cr istribution Provider r's applicable passable and ever, if a Ger r's estimate c the Net Gene r install Net G	ere less intru ustomer, ar ovider. The estimate lo tariffs to de d other appl nerating Fac of the Gene eration Outp	isive and/o e available se Genera ad data in etermine o icable cha cility custo rator(s) ou ut Meterin	or more cost or providing ating Facilities accordance w r meet applica rges and tariff mer objects to tput, the custo g, or have	may vith ible	
		All metering opt requirements se Provider does n Distribution Pro Provider-owned expense The r Generation Out	et forth in Dist ot receive me vider shall ha Net Generat elevant factor	ribution Pro eter data in ve the right ion Output rs in determ	vider's Ru accordanc to install I Vetering a ining the r	Ile 22. If Distri e with Rule 22 Distribution It the custome	ibution 2,	
	(a)	Data requireme	nts in proport	ion to need	for inform	ation;		
		Producer's elec Distribution Pro				ately address	es	i (N)
							(Col	ntinued)
Advice L Decision		4110-E 12-09-018		lssued by an K. Cherry		Date Filed Effective		T 2/19/2013
140C0	140.	12-00-010	Vic	e President atory Relations		Resolution No.		

PG&	6	n Ero	Gas and Electric Com ncisco, California	npany	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32005-E
			GENER	ELECTRI ATING FACIL	<b>C RULE NO</b> LITY INTER		IONS	Sheet 15	2
J.	ME	TER	ING, MONITORIN	NG AND TEL	EMETERI	NG (Cont'	d.)		(N)
	3.	NET	GENERATION	OUTPUT ME	TERING (	Conťd.)			¦
			Accuracy and typ collecting data;	e of required	I Metering	consistent	with purposes	of	
		(d)	Cost of Metering	relative to the	e need for	and accur	acy of the data	a;	i
			The Generating F Metering/monitor		relative to	the cost c	of the		
			Other means of o data, etc.);	btaining the	data (e.g. (	Generating	g Facility logs,	proxy	
			Requirements un Producer.	der any Gen	erator Inter	rconnectio	n Agreement v	vith	
		Fac purs J.3	requirements in ilities operating u suant to California supersedes Secti edules.	nder Distribu a PUC sectio	tion Provid n 2827, et	er's Net E seq. Noth	nergy Metering	g tariff tion	
		on a Met	ribution Provider a quarterly basis, ering equipment i facility.	the rationale	for requirir	ng Net Ge	neration Outpu	ıt	
	4.	POI	NT OF COMMON		G (PCC) ME	ETERING			i
		serv Pro mea elec may	purposes of asse vice, Producer's F vider, and if requi asure electric pow tric service Tariff be replaced with from Producer's	PCC Metering red, replaced ver according Where requ a bi-directio	y shall be re to ensure to the pro- uired, the C nal meter s	eviewed b that it will visions of Customer's so that po	y Distribution appropriately the Customer's s existing mete wer deliveries	er	
								(Conti	nued)
Advice Decisio			4110-E 12-09-018		sued by <b>n K. Cherry</b>		Date Filed Effective	DRAFT 2	2/19/2013
				Vice	President		Resolution No.	-	

Regulatory Relations

PGa		<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32006-E
			ECTRIC RULE NO		IONS	Sheet 1	53
J.	M	ETERING, MONITORING AN	D TELEMETERI	NG (Conť	d.)		(N)
	4.	POINT OF COMMON COU	PLING (PCC) MI	ETERING	(Cont'd.)		
		Producer may, at its sole op install multi-metering equipr Distribution Provider's Distr Distribution Provider. When designed to prevent reverse	ment to separate ibution System a e necessary, su	ly record p ind retail p	ower deliverie urchases from	es to า	
		Generating Facilities for Ne et seq. shall have metering applicable Net Energy Mete	provided pursua	nt to the te		827,	
	5.	TELEMETERING					i
		If the nameplate rating of th Telemetering equipment at may be required at Produce Interconnected to a portion operating at a voltage below required on Generating Fac shall only require Telemeter more cost effective options are not available. Distributi designated authority, on a c Telemetering equipment in of the facility.	the Net Generat er's expense. If t of Distribution Pi v 10 kV, then Te ilities 250 kW or ring to the extent for providing the on Provider will r quarterly basis, th	ion Output he Genera rovider's D lemetering greater. that less necessar eport to the ne rational	t Metering loca ating Facility is distribution System Distribution Provident model Distribution Provident Distribution ion stem lay be rovider or ime n or		
	6.	LOCATION					İ
		Where Distribution Provider premises, Producer shall pr a suitable location for all su	ovide, at no exp	ense to Di			   (N)
						(Col	ntinued)
Advice Decisi		ter No: 4110-E o. 12-09-018	lssued by Brian K. Cherry		Date Filed Effective		T 2/19/2013
142C0		0. 12 00 010	Vice President Regulatory Relations		Resolution No.		

PGa		Son Eror	Gas and Electric ( ncisco, California	Company	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32007-E
			GEN	ELECT IERATING FAC	RIC RULE NO		ONS	Sheet 15	4
J.	ME	ETERI	NG, MONITO	RING AND TE	ELEMETERIN	NG (Cont'd	l.)		(N)
	7.	COS	TS OF METE	RING					
		the i	lucer will bear ncremental cc pment.					luding	
	8.	MUL	TIPLE TARIF	F METERING	i				
		Faci one NEM eligil gene ensu and unde eligil mete sche Whe gene mete	requirements lity includes m Net Energy M 1), or where a ble generators erators withou are proper tarif at each of the er the same N ble generators ering requirement edule. The a Generation erator groups i ering of the no ection J.3.	aultiple genera etering (NEM Generating F in combination t Non-Export in ff administration NEM eligible EM tariff sche under differe ents will be a ng Facility cor in combination	ators eligible f ) tariff schedu acility consist on with one o relays ("Reve on, metering generator gr dule. For co ont tariffs, billi s specified in msists of one n with one or	for service ule (e.g. Ni ts of one o r more nor rse Power will be req oups eligit mbinations ng adminis the appro or more Ni more non-	under more t EM, BG-NEM r more NEM- n-NEM eligible Protection"). uired at the P ole for service of multiple N stration and priate NEM ta EM eligible NEM generat	, FC- To CC IEM ariff	I I I I I I I I I I I I I I I (N)
								(Conti	nued)
Advice Decisi			4110-E 12-09-018		Issued by ian K. Cherry		Date Filed Effective	DRAFT	2/19/2013
143C0	)				ice President ılatory Relations		Resolution No.		



144C0

Pacific Gas and Electric Company

	<b>fic Gas and Electric Compan</b> y Francisco, California	<b>y</b> Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32009-
		ELECTRIC RULE NO NG FACILITY INTER		IONS	Sheet 156	
K. DISP	JTE RESOLUTION PR	OCESS (Cont'd.)				(N)
2. P	ROCEDURES (Cont'd.)	)				ļ
а	Upon the aggrieved F Party must designate decisions for its response Calendar Days. In a Provider shall provide and/or technical deta Provider interconnect one (21) Calendar Da	e a representative w ective Party to revie ddition, upon receip e the aggrieved Par ils and analysis rega tion requirements up	ith the aut w the disp t of the no ty with all arding any	hority to make bute within seve tice, Distribution relevant regula / Distribution	en (7) on atory	
	Within forty-five (45) Parties' authorized re to try to resolve the d faith and use best eff	epresentatives will b lispute. Parties are	e required expected	I to meet and o	confer	
b.	If a resolution is not r date of the notice, eit negotiations for an ac Parties may by mutua mediation to the ADF The request may be adr program@cpuc. agreement may requ mediator with costs to	ther 1) a Party may dditional forty-five (4 al agreement make Coordinator in the submitted by electro <u>ca.gov</u> . Alternativel est mediation from a	request to 15) Calence a written I Commiss onic mail to y, both Pa an outside	o continue dar Days or 2) f request for ion's ALJ Divis o arties by mutua e third-party	the ion.	
C.	At any time, either Pa Commission pursuan the Commission's Ru	t to California PUC	section 17	702 and Article	4 of	   
	othing in this section sh xercise rights and reme			ghts of any Pa		I I (N)
					(Continu	ued)
dvice Letter N		Issued by		Date Filed	DRAFT 2/	,
ecision No.	12-09-018	Brian K. Cherry Vice President		Effective Resolution No.		

Regulatory Relations

PF&F	<b>Pacific Gas and Electric Company</b> San Francisco, California U 39	Cancelling	Original	Cal. P.U.C. Sheet I Cal. P.U.C. Sheet I		2010-E		
	ELEC GENERATING FA	TRIC RULE NO. ACILITY INTERC			heet 157			
	SPUTE RESOLUTION PROCES				1)	N)		
3	<ul> <li>PERFORMANCE DURING DIS Pending resolution of any disp proceed diligently with the perf under this Rule <u>except as desr</u> Agreements, unless the Impler Disputes as to the Interconnect Section shall be subject to res in this Section.</li> </ul>	ute under this S formance of their cribed in Section menting Agreem tion Request ar	ir respecting F.6 and the second seco	tive obligations the Implementi ve been terminat mentation of this	ted.	<sup>-</sup> (F	ormatted: Font: 12 pt, Not H	ighlight
L. C	ERTIFICATION AND TESTING (	RITERIA						
1	. INTRODUCTION							
	This Section describes the tes equipment used for the Interco Distribution Provider's Distribu Type Testing, Production Test TestingThe procedures liste appropriate Underwriters Labo Electronic Engineers (IEEE), a Commission (IEC) documents well as the testing described ir <i>Commission's Interconnection</i> Rule has been revised to be co Standard for Interconnecting D Systems.	nnection of Ger tion or Transmis ing, Commission d rely heavily or ratory (UL), Insi ind International most notably May 1999 New Requirements ponsistent with A	nerating ssion Sy ning Tes n those of titute of I I Electroi UL 1741 v York S As note NSI/IEE	Facilities to stemIncluded ting, and Periodi described in Electrical and technical and IEEE 929 a tate Public Servi ed in Section B, 1 E 1547-2003	ic is ce this	I I I I I I I I I I I I I I I I I I I		
					(Continue	ed)		
Decision		Issued by Brian K. Cherry Vice President		Date Filed Effective Resolution No.	DRAFT 2/19	9/2013		
46C0	Re	gulatory Relations						



Г

Pacific Gas and Electric Company San Francisco, California U 39

Cancelling

Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No. Original

32011-E

			ECTRIC RULE NO. 21 FACILITY INTERCONNECT	IONS	Sheet 158
L. C	ERTIFICAT	ION AND TESTIN	G CRITERIA (Cont'd.)		(N)
1	. INTROD	JCTION (Cont'd.)			ļ
	Section H Generati Provider' Facility w Transmis develope number o Transmis	H of this Rule, are ng Facility's equips s Distribution or Tr vill cease providing ssion System unde ed assuming a low of connections to E ssion System. At h al requirements and	ogether with the technical r intended to provide assurat nent will not adversely affe ransmission System and th power to Distribution Prov r abnormal conditions. The level of Generating Facility Distribution Provider's Distri- nigh levels of Generating Facility d corresponding test proces	nce that the ct Distribution at a Generating ider's Distributi e tests were penetration or bution or acility penetrati	g l jon or l b on, l
	Once a C consider Distributi in Sectio require re Certificat Interconr	Senerator or invert ed suitable for Inte on or Transmissio n L, Distribution Pr etesting of such Co ion process is inte	eria for "Certifying" Genera er has been Certified per th rconnection with Distribution n System. Subject to the e ovider will not repeat the de ertified Equipment. It shoul nded to facilitate Generation tion is not a prerequisite to	his Rule, it may on Provider's xceptions desc esign review or d be noted that g Facilities	r be l l cribed l
	in chang- requirem well as e to provid has beer revised L Converte with Dist previous Certified	es in set points, te ents that will impa quipment currently e consistency with n submitted to a NI Jnderwriters Labor ris, Controllers and ributed Energy Re Rule 21 certificatio Equipment for Inte	Rule relative to IEEE 1547- st criteria, test procedures, ct previously certified or list y under evaluation. These IEEE 1547. Equipment the RTL for testing prior to the a atories (UL) 1741 standard Interconnection Systems sources" and that subseque on requirements will continue erconnection Requests sub of the revised "UL 1741."	and other ted equipment of changes were to at is certified of adoption of the l titled "Inverter Equipment for ently meets the ue to be accept	as I made I r that I 's, I use I e I ted as I
					(Continued)
Advice Le Decision	<i>etter No:</i> 4110 <i>No.</i> 12-0	)-E 9-018	lssued by Brian K. Cherry	Date Filed Effective	DRAFT 2/19/2013
147C0			Vice President Regulatory Relations	Resolution No.	

G&F			<b>s and Electric Cor</b> sco, California	mpany	Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
			GENE	ELECTR RATING FAC	RIC RULE NO ILITY INTER			eet 159
L. C	CERTI	FICA	ATION AND T	ESTING CR	ITERIA (Co	nťd.)		(N)
2	2. CE	RTI	FIED AND NO	ON-CERTIFI	ED INTERC	ONNECT	ION EQUIPMENT	r į
	a.	Ce	rtified Equipm	ent				ļ
		as req Equ Dis a p the disc the	having met bo uirements des uipment for pu tribution or Tr re-packaged s necessary fu nufacturer's fa cretion of the t	oth the Type scribed in this inposes of In ansmission S system or an nctions. Typ actory or test testing labora tallation tester	Testing and s document terconnectio System. Ce assembly of te Testing m l laboratory, atory, field-of ed. In such	I Production is consider on with Distrification of compon ay be dor or in the for cases, so	ered to be Certifie stribution Provider may apply to eith- ents that address he in the field. At the n may apply only me or all of the	ed   r's   er   5
		ma	en equipment nufacturer, at prmation for ea	a minimum,			shall provide to t following	he I I I
		Adr	ministrative:					
		(1)					e serial number t certification is	
		(2)	Equipment n	nodel numbe	er(s) of the C	Certified e	quipment;	
		(3)	The software	e version utili	ized in the e	equipment	, if applicable;	
		(4)	Test procedu	ures specifie	d (including	date or re	evision number); a	ind I
		(5)	Laboratory a	ccreditation	(by whom a	ind to wha	t standard).	(N)
								(Continued)
vice L cision	etter No No.		110-E 2-09-018		lssued by an K. Cherry		Date Filed [	DRAFT 2/19/20

148C0

12-09-018

Brian K. Cherry Vice President Regulatory Relations

Effective Resolution No.

	<b>ncific Gas and Electric C</b> an In Francisco, California 39	ompany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee						
	GEN	ELECTRIC ERATING FACILI				Sheet 160					
L. CEF	RTIFICATION AND	TESTING CRITI	ERIA (Cor	nťd.)		(N)					
	CERTIFIED AND N (Cont'd.)	ON-CERTIFIED	INTERC	ONNECT	ION EQUIPME	NT					
	a. Certified Equip	nent (Cont'd.)									
	Technical (As a	ppropriate):									
	(1) Device ratir	ngs (kW, kV, Vol	ts, amps,	etc.);							
1	(2) Maximum a	vailable fault cu	rrent in ar	nps;							
	(3) In-rush Cur	rent in amps;									
	(4) Trip points,	(4) Trip points, if factory set (trip value and timing);									
	(5) Trip point a	nd timing range	s for adjus	table set	tings;						
	(6) Nominal po	wer factor or rar	nge if adju	stable;							
	(7) If the equip used (rever	ment is Certified se power or und	l as Non-E lerpower);	Exporting and	and the method						
	(8) If the equip	ment is Certified	l as Non-l	slanding							
		ibility of the equ ormation is made ne testing labora	e publicly	available	by the	at I					
	b. Non-Certified E	quipment									
	and/or Intercon acceptable to D results for non-( Provider for the Provider for equ Interconnection	quired by Distrib nection Facility istribution Provid Certified equipm Supplemental F	ution Prov The man der may p ent must l Review. A a particula t guarante	vider for e ufacturer erform the pe submit pproval b ar Genera ee Distribu	ach Generating or a laboratory ese tests. Test ted to Distributi y Distribution ting and/or ution Provider's	g   on   					
						(Continued)					
Advice Letter Decision No. 149C0	r No: 4110-E 12-09-018	<b>Brian F</b> Vice F	ied by <b>K. Cherry</b> President ry Relations		Date Filed Effective Resolution No.	DRAFT 2/19/2013					

		c Gas and Electric C rancisco, California	ompany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		)14-Е
		GENE	ELECT ERATING FAC	RIC RULE NO CILITY INTER		IONS	Sheet 161	
	L. CERTI	FICATION AND	TESTING CF	RITERIA (Co	nťd.)		(N)	)
	3. TY	PE TESTING						
	a.	Type Tests and	I Criteria for I	nterconnecti	on Equipm	nent Certificatio	on l	
I		Type testing pro the specification this RuleThe issues related to device safety or	ns for being d requirements o Interconned	lesignated as described in ction and are	s Certified this Secti	equipment une	der I	
		Table L.1 define While UL 1741( requirements ar induction Gener protection relay Distribution Pro Table L.1 as ap and/or Intercom and its control a performed in the	1) was writte re readily ada rators, as we sUntil a uni vider or NRT propriate and nection Facili and Protection	n specifically aptable to syn II as single/m iversal test s L shall adapt 1 necessary ties or assoc n Functions.	v for inverte nchronous nulti-functio tandard is t the proce for a Gene siated equi These tes	ers, the Generators, on controllers a developed, edures reference errating Facility pment perform sts shall be	and   ced in   nance	)
							(Continued	)
	Advice Letter No Decision No.	: 4110-E 12-09-018		Issued by ian K. Cherry ice President		Date Filed Effective Resolution No.	DRAFT 2/19/2	2013
	150C0			llatory Relations				

Pacific Gas and Electric Company San Francisco, California U 39	C Cancelling	original	Cal. P.U.C. Sh Cal. P.U.C. Sh		32015-E
ELECTRI GENERATING FACIL	C RULE NO. 2 ITY INTERCO		ONS	Sheet 1	62
L. CERTIFICATION AND TESTING CRI	TERIA (Cont'o	d.)			(N)
3. TYPE TESTING (Cont'd.)					
a. Type Tests and Criteria for Int (Cont'd.)	erconnection	Equipme	ent Certificat	tion	
Table <u>Type Test and Requirements for Inter</u>		ipment Ce	rtification		
Type Test	Reference (1)	Inverter	Synchronous Ir Generator G	nduction enerator	i
Distribution Provider Interaction DC Isolation Simulated PV Array (Input) Requirements Dielectric Voltage Withstand Power Factor Harmonic Distortion DC Injection Distribution Provider Voltage and Frequency Variati Reset Delay Loss of Control Circuit Short Circuit Load Transfer Surge Withstand Capability Anti-Islanding Non-Export In-rush Current Synchronization Table Notes: (1) References are to section numbers in eith for Use in Independent Power Systems ) "inverter" may have to be adapted to the apply in the tests to other technologies. (2) Required only if Non-Export designatio (3) Required only if Non-Export designatio (4) Required for Generators that use Distribution X = Required for Generators that use Distribution X = Required for all self-excited induction Generator A Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for all self-excited induction Generator (5) Required for Generators that use for Self self self self self second for Generators that use for Self self self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Self second for Generators that use for Generators that use for Generators that use for Self second for Generators that use for Generators that use for Generators that use for Generators that use for Generators th	UL 1741 – 46.2 UL 1741 – 46.4 UL 1741 – 47.3 UL 1741 – 47.3 UL 1741 – 47.7 L.3.e L.3.c -L.3.d L.3.f] her UL 1741 (Inverte or this Rule. Referen other technologies b on is desired. Ition Provider power nerators as well as I	2 X 2 X 2 X 2 X 2 X 2 X 2 X 2 X	peed. operate as voltag		                               
				(Con	tinued)
Decision No. 12-09-018 Brian	sued by <b>K. Cherry</b>	E	Date Filed Effective	DRAFT	2/19/2013
	President tory Relations	F	Resolution No.		

Pacific Gas an San Francisco, U 39	<b>d Electric Company</b> California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
	ELEC GENERATING FA	TRIC RULE NO			Sheet 163
L. CERTIFICATI	ON AND TESTING (	CRITERIA (Co	nťd.)		(N)
3. TYPE TES	STING (Cont'd.)				
a. Type (Cont	Tests and Criteria for 'd.)	r Interconnectio	on Equipm	ent Certificatio	n l I
Table L.2 Certification	<u>Type Tests Sequence</u> 1	e for Interconn	ection Equ	<u>iipment</u>	
Test No.	Type Test				İ
1	Distribution Provid	ler Voltage and	I Frequence	cy Variation	İ
2	Synchronization				İ
3	Surge Withstand C	Capability			İ
4	Distribution Provid	ler Voltage and	I Frequence	cy Variation	
5	Synchronization				İ
6	Other Required ar	nd Optional Tes	sts		İ
Test and	s 1, 2, and 3 must be on follow in order co	e done first and nvenient to the	l in the ord test agen	ler shown. Te cy.	sts 4 I I
b. Anti-Is	slanding Test				
1741 Sthese	es that pass the Anti- Section 46.3 will be o Interconnection reques for which a Certifie	considered Nor irements. The	I-Islanding test is rec	for the purpos uired only for	ses of I
c. Non-E	Export Test				
Sectio	ment that passes the in L.7.a will be consid Interconnection requ s for which a Certifie	dered Non-Exp irements. This	orting for the test is re-	the purposes o quired only for	n l f l l (N)
					(Continued)
Advice Letter No: 4110- Decision No. 12-09		lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013
152C0	Re	Vice President egulatory Relations		Resolution No.	

	<b>cific Gas and Electric Compan</b> In Francisco, California 39	<b>y</b> Cancelling	Original	Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.	32017-E
	GENERATI	ELECTRIC RULE NO			et 164
L. CEF	RTIFICATION AND TEST	ING CRITERIA (Co	nt'd.)		(N)
3.	TYPE TESTING (Cont'd.	)			
	d. In-rush Current Test				
	Generation equipmen motor up to speed wi Section L.7.b to dete startup process. The Starting Voltage Drop	II be tested using the rmine the maximum resulting In-rush Cu	e procedui current dr	re deḟined in awn during this	
1	e. Surge Withstand Ca	pability Test			
	The interconnection of requirement in Section accordance with IEEI 1000 V to confirm that the selected test level Interconnection equip accordance with mar applicable standards control circuits, use II confirm the equipment provide misinformation The location/exposur tested shall be clearly equipment document protect the equipment	on H.1.c in all norma E Std C62.45-2002 f at the surge withstan el(s) from IEEE Std C coment rated greater nufacturer or system . For interconnectio EEE Std C37.90.1-2 nt did not fail, did nor on (IEEE 1547-5.1.3 e category for which y marked on the equi ation. External surg	I operating for equipm Id capabilit C62.41.2-2 than 1000 integrator n equipme 002. The t misopera .2). In the equip ipment lat ge protection	g modes in ent rates less than ty is met by using 2002. V shall be tested in designated ent signal and se tests shall ate, and did not oment has been bel or in the on may be used to	
Advice Letter		Issued by		Date Filed DR	(Continued) AFT 2/19/2013
Decision No.	12-09-018	Brian K. Cherry Vice President		Effective Resolution No.	
153C0		Regulatory Relations			

PG8	E	Pacific Gas and El San Francisco, Cali U 39		Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
			ELECT GENERATING FAC	<b>RIC RULE NO</b> CILITY INTER(			Sheet 165
L. (	CE	RTIFICATION	AND TESTING CR	ITERIA (Con	ťd.)		(N)
3	3.	TYPE TESTIN	NG (Cont'd.)				
		f. Synchron	ization Test				
		generators connected System. (transition provides s on both th manufactu that monit both funct current-so	s applied to synchro s, and inverters cap I to Distribution Pro The test is also app from stand-alone to such functionality. The e synchronization a urers can verify to the oring and controls he ions. This test is no surce inverters. Insti- l be applied to those	vable of opera vider's Distrik lied to the res o parallel ope Fhis test may and re-synchr ne satisfaction nardware and ot necessary f tead, the In-ru	iting as vo oution or T synchroniz ration) on not need onization n of the te software or inductio	Itage-source w ransmission action Function equipment tha to be performer functions if the sting organizati are common to on generators o	hile     t   d   on
		device clo within the the param paralleling start with o between C Transmiss outside of Facility is the test fiv synchroniz synchroniz	shall demonstrate the sure, all three sync stated limits. This eters are outside or device shall not cli- only one of the thre Senerating Facility a sion System; (2) fre- the synchronization brought within spec re times for each of zation with synch cli- zation, the test mus arameters are brou	hronization p test shall also f the limits sta ose (IEEE 15 e parameters and Distribution quency differ n specification prior the three par neck or manu it verify that p	arameters demonst ated in the 47-5.1.2A : (1) volta on Provide ence; or (3 to synchr ameters. al control aralleling	in Table L.3 ar rate that if any table, the ). The test will age difference er's Distribution 3) phase angle hat the Genera onization. Rep For manual with auto does not occur	of       or     ting   eat   
							(Continued)
Advice Decisio		<i>tter No:</i> 4110-E No. 12-09-01		lssued by r <b>ian K. Cherry</b>		Date Filed Effective	DRAFT 2/19/2013
154C0				lice President ulatory Relations		Resolution No.	

Pf8		<b>ic Gas and Electric C</b> Francisco, California	ompany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		GEN		RIC RULE NO		IONS	Sheet 166
L. (	CERTI	FICATION AND	TESTING CI	RITERIA (Co	nt'd.)		(N)
З	3. TY	PE TESTING (C	onťd.)				
	f.	Synchronization	n Test (Cont'	'd.)			
			Tal	ble L.3			
		<u>Sv</u>	nchronization	Parameter Lim	<u>its [1]</u>		
		Aggregate Rating of Generator Units (kVA) 0-500 > 500-1,500 > 1,500-10,000 [1] – IEEE 1547-5.1	Difference (∆f, Hz) 0.3 0.2 0.1	ltage Difference	Phase Angle (ΔV, %) 10 5 3	Difference (ΔΦ,°) 20 15 10	
2	4. PF At Di de 68 sy pc	Paralleling Dev The di-electric v performed on the requirements sp CODUCTION TES a minimum, eact stribution Provide escribed in UL174 and the Synchro stems with adjustions as specified e factory or as participations of the state of the state of the specified of	roltage withs the paralleling becified in Se STING the interconne the voltage are the voltage	tand test spe device to en ection H.1.c ( ction system d Frequency nufacturing a t specified in nts shall be tu facturer. Thi	shall be su Variation nd Product Section Li ested at a is test may	bliance with the '-5.1.3.3). Ubjected to Test procedure tion Tests, Sec 3.f. Interconne single set of se be performed	e I ection I et I
Advice L Decision 155C0		o: 4110-E 12-09-018	V	Issued by rian K. Cherry lice President ulatory Relations		Date Filed Effective Resolution No	(Continued) DRAFT 2/19/2013

F&		n Er	<b>c Gas and Electric Co</b> rancisco, California	ompany	Cancelling	Original	Cal. P.U.C. Sheet N Cal. P.U.C. Sheet N	
			GENE		TRIC RULE NO CILITY INTER			neet 167
L. (	CEF	RTIF	FICATION AND	TESTING C	RITERIA (Co	nt'd.)		(N)
!	5.	со	MMISSIONING	TESTING				
		a.	Commissioning	Testing				ļ
			verify protective Operation of a C software is char Commissioning testing protectiv technician, or lic equipment) mus	settings an Generating I nged that ma Test must b e equipmen censed elec of perform C er's recomm	Id functionality Facility, or any ay affect the f be performed. It (professional trician with ex commissioning hended test pr	<ul> <li>V. Upon ir y time interinterinterinterinterinterinterinter</li></ul>	rface hardware o isted below <del></del> ; a	r I I d I ve I h I
			days prior to the Provider has the Provider may all describing which	ubmitted to l performan e right to wit so require v h tests were tested durir	Distribution Pl ce of the Con iness Commis vritten certifica performed a ng commissio	rovider at missioning sioning T ation by th nd their re ning, parti	least 10 working og Test. Distributi est. Distribution e installer sults. Protective cularly with respe	
			(1) Over and u	nder voltage	е			i
			(2) Over and u	nder freque	ncy			i
			(3) Anti-Islandi	ng function	(if applicable)			l
			(4) Non-Export	ing function	(if applicable	)		
			(5) Inability to e	energize dea	ad line			(N)
hice	1.044-1	× 1/	4140 E		logued by		Data Filad	(Continued)
dvice I ecisior 56C0			4110-E 12-09-018		Issued by Brian K. Cherry Vice President gulatory Relations		Date Filed Effective Resolution No.	DRAFT 2/19/2013

	c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO		IONS	Sheet 168
	FICATION AND TESTING	, , , , , , , , , , , , , , , , , , ,	nťd.)		(N)   
a.	<ul> <li>MMISSIONING TESTING</li> <li>Commissioning Testing</li> <li>(6) Time delay on resta</li> <li>(7) Distribution Provide</li> <li>(8) Synchronizing contr</li> <li>(9) Other Interconnection as part of the Generation o</li></ul>	(Cont'd.) Int after Distribution r system fault defined rols (if applicable) on Protective Fur- rator Interconnect all include visual in- ent and protective rconnection requi- litional Commissi onsible for the re- liadditional Commission onsible for the re- litional Commission provides for the re- subsequent Com- commissioning To- days of receipt co- vided by Distribu- d by the hours inc- ification is not su- stribution revoides subsequent Com- commissioning To- days of receipt co- vided by Distribu- d by the hours inc- ification is not su- at visit will not be-	ection (if u actions tha tion Agree nspections e settings t irements. oning Tes easonably missioning Rule. If the ccessful the r may imp missioning est verifica of Distribut tion Provice time spen poing Test e. If the ir ccessful the irecessful the	used) t may be requ ment s of the o confirm t Verification ( incurred costs Test verification rough no fau ose upon Pro g Test verification shall be ion Provider's der shall cons Distribution Pr t on-site from site. Addition nitial rough the fau	ired
Advice Letter No Decision No.		Issued by		Date Filed Effective	(Continued) DRAFT 2/19/2013
157C0	12-09-018	Brian K. Cherry Vice President Regulatory Relations		Resolution No.	

		<b>s and Electric Company</b> sco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee						
			CTRIC RULE NO			Sheet 169					
L. CERT	IFIC	ATION AND TESTING	CRITERIA (Co	nťd.)		(N)					
5. C	OMM	DMMISSIONING TESTING (Cont'd.)									
C.	Otl	her Checks and Tests				i					
	Oth	ner checks and tests th	at may need to	be perforr	ned include:	i					
	(1)	Verifying final Protect	tive Function se	ttings		i					
	(2)	Trip test (L.5.g)				Í					
	(3)	In-service tests (L.5.)	ר)								
d.	Ce										
	Tra mir this Dis	nerating Facilities qual ack process incorporate nimum, passed the Typ s Rule and are judged f stribution Provider's Dis nerating Facilities, it is ts:	e Certified Equip be Tests and Pro to have little or r stribution or Trar	oment that oduction T no potentia nsmission	have, at a ests described al impact on System. For s	in I					
	(1)	Protective Function s Production Testing w performed using inject currents, applied way Generator to simulate frequency, or varying the measured (actual	ill require field v cted secondary f veforms, at a tes e abnormal Distr the set points to	erification frequencie t connection ribution Prosonation o show the	. Tests shall be es, voltages and ion using a rovider voltage at the device tri	d l or l ipsat l					
	(2)	The Non-Islanding fu break disconnect swi ceases to energize D Transmission System time delay after the s	tch to verify the vistribution Provi n and does not r	Interconn der's Disti	ection equipme	ent I					
	(3)	The Non-Exporting fuinjection techniques. adjusting the Genera that the applicable No underpower) are met	This function m ting Facility outp on-Exporting crit	ay also bo but and loo	e tested by cal loads to ver	ify					
						(Continued)					
Advice Letter No Decision No.		110-E 2-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/2013					
158C0		F	Vice President Regulatory Relations		Resolution No.						

	<b>cific Gas and Electric Co</b> n Francisco, California <sup>39</sup>	mpany	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
	GENE	ELECTR RATING FAC	R <b>IC RULE NO</b> ILITY INTER		IONS	Sheet 170
L. CER	TIFICATION AND 1	ESTING CR	ITERIA (Co	nťd.)		(N)
5. (	COMMISSIONING	ESTING (Co	ont'd.)			
	d. Certified Equipn	nent (Cont'd.)	)			
	The Supplement additional compo				udy may impo	se I I
(	e. Non-Certified Ed	quipment				
	Non-certified Eq described in Typ Certified Equipm Distribution Prov factory, in the fie Distribution Prov of tests for a par determines it has	e Testing (Se ent Commiss ider's approv Id as part of ider, at its dis ticular Gener	ection L.3) a sioning Test val, these test commission scretion, ma rating Facilit	is well as t s (Section sts may be ing, or a c iy also app y or, for ex	those describe L.5.d). With e performed in combination of prove a reduce kample, if it	d in I I the I both. I
f	f. Verification of S	ettings				
	At the completio devices are set t shall be docume	o Distributior	n Provider-a	pproved s	ettings. Verific	
ç	g. Trip Tests					
	Interconnection relays) that have Interconnection (e.g. contactor o commissioning. associated interr operate. Interloo between interrup part of a system manufacturing.	not previous acilities with r circuit breal The trip test upting device king circuits ting devices	sly been tes in their associ ker) shall be shall be add es open whe between Pr shall be sim	ted as par iated inter trip tested equate to en the prot otective F illarly tested	t of the rupting device d during prove that the tective devices unction device ed unless they	s           s or
						(N)
						(Continued)
Advice Letter Decision No.	No: 4110-E 12-09-018	Bria	lssued by an K. Cherry		Date Filed Effective	DRAFT 2/19/2013
159C0			e President atory Relations		Resolution No.	

PG&E	c Gas and Electric Company rancisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32024-E
		ECTRIC RULE NO FACILITY INTER		IONS	Sheet 17	'1
L. C 5	FICATION AND TESTING MMISSIONING TESTING Trip Tests Interconnection Protectiv relays) that have not prev Interconnection Facilities (e.g. contactor or circuit I commissioning. The trip associated interrupting do operate. Interlocking circ between interrupting dev part of a system that has manufacturing. In-service Tests Interconnection Protectiv previously been tested a their associated instrume shall be given an in-servi verify proper wiring, pola measurement shall be m each Alternating Current protective devices with b and voltage magnitudes voltage, and real and rea for in-service testing. Ot phase-angle meters shall	G CRITERIA (Con G (Cont'd.) The Functions and viously been test with their assoc preaker) shall be test shall be ade evices open whe cuits between Pro- cices shall be sim been tested and the part of the Inter- ent transformers in-service test sharrying a known la ade of the magn (AC) voltage and e results compare e results compare uilt-in Metering F and phase angle ictive power, the herwise, portable	devices (e ed as part iated inter trip tested equate to p on the prot obtective Fu ilarly tested approved devices the reconnection or that are mmission s, and prop nall be mad evel of cur itude and d current of ed to expe unctions t s, or mag metered v	e.g. reverse por of the rupting deviced during prove that the ective devices unction devices during that have not in Facilities with during that have not in Facilities with wired in the f ing. This test per operation of de with the por rent. A phase angle of connected to t cted values. I hat report curn nitudes of curr values may be	th ield will of the wer of For rent ent, used	(N) - - - - - - - - - - - - -
Advice Le Decision 160C0	: 4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President Regulatory Relations		Date Filed Effective Resolution No.		(N) inued) 2/19/2013

PF8		<b>Gas and Electric Company</b> ancisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee		32025-E
			G FACILITY INTER			Sheet 17	2
L.	CERTIF	FICATION AND TESTI	NG CRITERIA (Co	nťd.)			(N)
	6. PE	RIODIC TESTING					
	per All Pro Dis tes Dis haz che yea 7. TYP Thi dev in L	riodic Testing of Interco formed as specified by Periodic Tests prescrib oducer shall maintain P tribution Provider. Per t intervals for the partic tribution Provider unde card areasBatteries u ecked and logged once ars, the battery must be E TESTING PROCEDU s Section describes the vice as Certified under Juderwriters Laboratori <i>ntrollers for Use in Inde</i>	the manufacturer, bed by the manufacturer, red by the manufacturer, lodic Testing confo- ular Line Section r r special circumsta used to activate an per month for prop e either replaced or URES NOT DEFIN e additional Type T this Rule. These T es UL 1741 Stand	or at leas cturer shal s or a log : prming to I nay be sp ances, suc y Protectiv cer voltage a dischar IED IN OT cests nece ype Tests ard Inverte	t every four yea l be performed for inspection b Distribution Pro ecified by th as high fire ve Function sha e. Once every ge test perform THER STANDA ssary to qualify a are not contai ers, Converters	ars. yy vider all be four ned. RDS / a ned s and	
		Non Exporting Test Dr	raaduraa				Ì
		Non-Exporting Test Pr					
		The Non-Exporting tes controllers and inverter certify the equipment a Options 1 and 2, of the discrete relay package intended Functions inte	rs designed to limit is meeting the requ review process. s and for controlle	t the expor uirements Tests are	rt of power and of Screen I, provided for		     (N)
	Letter No:		Issued by		Date Filed	``	inued) 2/19/2013
Decisio 161C0	on NO.	12-09-018	<b>Brian K. Cherry</b> Vice President Regulatory Relations		Effective Resolution No.		

	Gas and Electric Compa Incisco, California	any Cancelling	0	U.C. Sheet No. 32026-I U.C. Sheet No.
	GENERA	ELECTRIC RULE NO		Sheet 173
L. CERTIF	ICATION AND TES	STING CRITERIA (Co	nt'd.)	(N)
7. TYPE (Con		EDURES NOT DEFIN	ED IN OTHER ST	FANDARDS
a.	Non-Exporting Test	t Procedures (Cont'd.)	)	
i	) Discrete Rever	se Power Relay Test		
	discrete revers to meet the req be understood provide a trip o	the Non-Exporting ter e power and underpo- juirements of Options that in the reverse po- utput with power flowio ovider's Distribution or	wer relay package 1 and 2 of Screer wer application, th ng in the export (t	es provided n I. It should ne relay will toward
	Step 1: Power Pickup Level S	Flow Test at Minimur ettings	n, Midpoint and M	laximum l I I
	desired export pickup setting, Apply nominal degrees phase pickup level. C indication of po which the relay the expected p this test at the angles of 90, 1	corresponding second power flow of 0.5 sec assumes 5 amp and voltage with minimum angle in the trip direc bbserve the relay's (L4 wer values. Note the trips. The power indi ower. For relays with midpoint, and maximu 80 and 270 degrees a easured watts will be	ondary watts (the 120V CT/PT seco current setting at tion. Increase the CD or computer di indicated power I cation should be adjustable setting im settingsRep and verify that the	minimum I ndary). I zero (0) I e current to isplay) I evel at I within 2% of I gs, repeat I eat at phase I relay does I
				(Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	lssued by Brian K. Cherry	Date File Effective	d DRAFT 2/19/201
200131011 110.	12-03-010	Vice President	Resolutio	

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ECTRIC RULE NO		IONS	Sheet 174
L. CERTIF	ICATION AND TESTIN	G CRITERIA (Co	nťd.)		(N)
7. TYPE (Cont	E TESTING PROCEDU ťd.)	RES NOT DEFIN	ED IN OT	HER STAND	ARDS I
a. I	Non-Exporting Test Pro	cedures (Cont'd.)	)		
i	) Discrete Reverse P	ower Relay Test	(Cont'd.)		
	Step 2: Leading Po	ower Factor Test			
	Apply rated voltage (calculated value fo power factor load c voltage by 135 deg current and verify th adjustable settings, midpoint, and maxim	r system applicat urrent in the non- rees). Increase th nat the relay does this test should b	ion) and a trip directi ne current not opera	pply a leading on (current lag to relay rated ate. For relays	gging I I s with I
	Step 3: Minimum F	Power Factor Test			
	At nominal voltage determined in Step degrees. Increase higher than at 0 de Repeat for phase a that the relay does	1, adjust the curr the current level t grees) and verify ngles of 90, 180 a	ent phase o pickup ( that the re	angle to 84 ó about 10 time lay operates.	r 276   s   
	Step 4: Negative S	equence Voltage	Test		
	Using the pickup se voltage and current simulate normal loa 180, Ib at 60 and lo and observe that th and 3.	at 180 degrees f d conditions (for at 300 degrees).	rom trippir three-phas Remove	ng direction, to se relays, use phase-1 volta	at I Ige I
					(Continued)
Advice Letter No: Decision No.	4110-Е 12-09-018	lssued by Brian K. Cherry		Date Filed Effective	DRAFT 2/19/20
163C0		Vice President Regulatory Relations		Resolution No.	

	Gas and Electric Company ancisco, California	/ Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ELECTRIC RULE NO NG FACILITY INTER		IONS	Sheet 175
L. CERTIF	ICATION AND TEST	ING CRITERIA (Co	nťd.)		(N)
7. TYP (Con	E TESTING PROCED ťd.)	OURES NOT DEFIN	IED IN OT	HER STANDA	ARDS I
a.	Non-Exporting Test F	Procedures (Cont'd.	)		
	i) Discrete Reverse	Power Relay Test	(Cont'd.)		
	Step 5: Load Cu	rrent Test			
	voltage and curre simulate normal I	settings determined ent at 180 degrees to oad conditions (use serve that the relay	rom the tri a at 180	ipping directior , Ib at 300 and	
	Step 6: Unbalan	ced Fault Test			i
	voltage and 2 tim in the non-trip dir degrees, la at 18	settings determine es rated current, to ection (use Va at 0 0 degrees, Ib at 0 c ve that the relay, es	simulate a degrees, ` legrees, ai	an unbalanced Vb and Vc at 1 nd lc at 180	80 I I
	Step 7: Time De	lay Settings Test			
	Adjust the curren operating time, a	ings and set time d t source to the appind nd compare agains ps when the relay to settings.	ropriate lev t calculate	vel to determin d values. Veri	e I fy I
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by Brian K. Cherry		Date Filed Effective	(Continued) DRAFT 2/19/2013
164C0		Vice President Regulatory Relations		Resolution No.	

		<b>and Electric Company</b> sco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
		ELEC GENERATING FA	TRIC RULE NO		IONS	Sheet 176
L. CERTI	FIC	ATION AND TESTING (	CRITERIA (Co	nťd.)		(N)
7. TYF (Coi		ESTING PROCEDURE )	S NOT DEFIN	ED IN OT	HER STAND	ARDS I
a.	No	n-Exporting Test Proce	dures (Cont'd.)	I		
	i)	Discrete Reverse Pow	er Relay Test	(Cont'd.)		
		Step 8: Dielectric Test	t			ļ
		Perform the test descr minute.	ibed in IEC 41	4 using 2	kV RMS for 1	
		Step 9: Surge Withsta	and Test			
		Perform the surge with C37.90.1.1989 or the s L.3.e.				ed in I
	ii)	Discrete Underpower I	Relay Test			
		This version of the Nor discrete underpower re of Option 2 of Screen power (toward Produce	elay packages I. A trip output	and meet will be pr	s the requirer ovided when	nents I import I
		Note: For an underpov power level at which th the set level.	ver relay, picku ne relay indicat	ip is defin es that th	ed as the high e power is les	nest I ss than I (N)
						(Continued)
Advice Letter No:		110-E	Issued by		Date Filed	DRAFT 2/19/2013
Decision No. 165C0	1		Brian K. Cherry Vice President gulatory Relations		Effective Resolution No.	

	Gas and Electric Compai ncisco, California	ny Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She	
	GENERAT	ELECTRIC RULE NO		IONS	Sheet 177
L. CERTIF	ICATION AND TES	TING CRITERIA (Co	nťd.)		(N)
7. TYPI (Con		DURES NOT DEFIN	IED IN OT	HER STANDA	ARDS
a.	Non-Exporting Test	Procedures (Cont'd.	)		
i	i) Discrete Underp	oower Relay Test (Co	onťd.)		
	Step 1: Power I Pickup Level Se	Flow Test at Minimur ettings	n, Midpoir	nt and Maximu	m İ
	desired power fl pickup setting.	orresponding second ow pickup level of 5 Apply rated voltage a angle in the direction	% of peak and curren	load minimum It at 0 (zero)	ie I I I
	computer displa power level at w be within 2% of settings, repeat Repeat at phase	irrent to pickup level y) indication of power hich the relay trips. the expected power. the test at the midpo angles of 90, 180 a perates (measured w	r values. The powe For relay pint, and m nd 270 de	Note the indication shows with adjustal naximum settin setting settin	ated I ould I ble I gs. I ify I
	Step 2: Leading	g Power Factor Test			
	voltage and rate load direction (c the current to 14 verify that the re	o current setting dete ed leading power fact urrent leading voltag 45% of the pickup lev elay does not operate the test at the minim	or load cu le by 45 de vel determ e. For rela	rrent in the no egrees). Decre ined in Step 1 lys with adjusta	rmal I ease I and I able I
	4110 5	lagure d'her			(Continued)
Advice Letter No: Decision No.	4110-Е 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT 2/19/2013
166C0		Regulatory Relations			

	n Eronoi	<b>s and Electric Company</b> sco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32031-E
			ECTRIC RULE NO FACILITY INTER		IONS	Sheet 17	78
L. CER	TIFIC	ATION AND TESTING	G CRITERIA (Co	nťd.)			(N)
1	YPE 1 Cont'd	ESTING PROCEDU	RES NOT DEFIN	ED IN OT	HER STAND	ARDS	
a	a. No	on-Exporting Test Pro	cedures (Cont'd.)	)			
	ii)	Discrete Underpowe	er Relay Test (Co	nťd.)			
		Step 3: Minimum P	ower Factor Test				
		At nominal voltage a determined in Step degrees. Decrease value at 0 degrees) phase angles 90, 18 operates for any cur	1, adjust the current the current level and verify that th 30 and 270 degre	ent phase to pickup e relay op es and ve	angle to 84 o (about 10% o erates. Repe erify that the re	r 276 f the at for	
		Step 4: Negative Se	equence Voltage	Test			ļ
		Using the pickup se voltage and 25% of simulate light load c observe that the rela 3.	rated current in to onditions. Remo	he norṁa ve phase	l load direction 1 voltage and	i, to	
		Step 5: Unbalanced	d Fault Test				
		Using the pickup se voltage and two time fault in the normal lo at 180 degrees, la a degrees). Observe operates properly.	es rated current, bad direction (use at 0 degrees, Ib a	to simulat Va at 0 c t 180 deg	e an unbalance legrees, Vb ar rees, and Ic at	nd Vc 0	
		Step 6: Time Delay	Settings Test				ļ
		Apply Step 1 setting Adjust the current so operating time, and that the timer stops maximum delay sett	ource to the appr compare against when the relay tr	opriate le calculate	vel to determir d values. Ver	ne ify	       (N)
						(Con	tinued)
Advice Letter		110-E	Issued by		Date Filed		2/19/2013
Decision No. 167C0	1	2-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.		

	Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. Shee Cal. P.U.C. Shee	
		ECTRIC RULE NO FACILITY INTERO			Sheet 179
L. CERTIFI	CATION AND TESTING	G CRITERIA (Cor	nťd.)		(N)
7. TYPE (Cont	TESTING PROCEDUF 'd.)	RES NOT DEFIN	ED IN OTI	HER STANDA	RDS I
a. N	Non-Exporting Test Proc	cedures (Cont'd.)			
ii	) Discrete Underpowe	er Relay Test (Co	nťd.)		
	Step 7: Dielectric Te	est			
	Perform the test des minute.	cribed in IEC 414	1 using 2 k	V RMS for 1	
	Step 8: Surge Withs	stand Test			
	Perform the surge w C37.90.1.1989 or the Section L.3.e.				
ii	i) Tests for Inverters a	nd Controllers wi	th Integrat	ed Functions	
	Inverters and contro underpower function operation of this fund	is shall be tested	to certify	the intended	
	Method 1: If the inve current/voltage mea underpower conditio functionally tested b currents and potentia Power Relay Test, S	surement to dete on, then the invert y application of a als as described	rmine the er or cont ppropriate in the Disc	reverse or roller shall be secondary	'(N)
					(Continued)
Advice Letter No: Decision No.	4110-E 12-09-018	Issued by <b>Brian K. Cherry</b> Vice President		Date Filed Effective Resolution No.	DRAFT 2/19/2013
168C0		Regulatory Relations			

	<b>: Gas and Electric Compa</b> ancisco, California	ny Cancelling	Original	Cal. P.U.C. Sheet Cal. P.U.C. Sheet	
	GENERA	ELECTRIC RULE NO			Sheet 180
L. CERTIF	FICATION AND TES	TING CRITERIA (Co	nťd.)		(N)
	PE TESTING PROCE	EDURES NOT DEFIN	IED IN OT	HER STANDAF	
a.	Non-Exporting Test	Procedures (Cont'd.)	)		
	iii) Tests for Inverte (Cont'd.)	ers and Controllers w	ith Integra	ted Functions	
	underpower fun	ontrollers designed to actions shall be tested s function. Two meth	l to certify	the intended	
	current/voltage underpower con functionally test currents and po	e inverter or controller measurement to detendition, then the inver ted by application of a otentials as described est, Section L.7.a.i of	ermine the ter or con appropriate in the Dis	e reverse or troller shall be e secondary	
	used, then unit- power cannot b two seconds. T	ternal secondary curr specific tests must be e exported across the hese may be factory hts are integral to the e field.	e conducte e PCC for tests, if th	ed to verify that a period exceed a measuremen	ding I
b.	In-rush Current Tes	t Procedures			
	This test will determ Generator.	ine the maximum In-i	ush Curre	ent drawn by the	
	(1) Locked-Rotor M	ethod			
		rocedure defined in N able if available).	IEMA MG	-1 (manufacture	er's (N)
					(Continued)
Advice Letter No:	4110-E	Issued by		Date Filed	(Continued) DRAFT 2/19/2013
Decision No.	12-09-018	<b>Brian K. Cherry</b> Vice President Regulatory Relations		Effective Resolution No.	

PGa		Gas and Electric Company ncisco, California	Cancelling	Original	Cal. P.U.C. She Cal. P.U.C. She		32034-E
			ELECTRIC RULE NO		IONS	Sheet 18	1
L.	CERTIF	ICATION AND TESTI	NG CRITERIA (Co	nt'd.)			(N)
	7. TYPE (Cont	E TESTING PROCED I'd.)	URES NOT DEFIN	ED IN OT	HER STANDA	ARDS	
	b.	In-rush Current Test F	Procedures (Cont'd	.)			
		(2) Start-up Method					
		by the manufact acquisition equip measure the cur Generating Faci Provider's Distril follow the norma time and current capture the max defined as the m during the startu During the test, must be capable the connection to Report the highe graphical repres with the certified	the Generating Fa urer. Using a calib prent with appropri- rent draw at the Po lity starts up and pa bution or Transmiss al, manufacturer-sp t resolution and acc imum current draw naximum current draw naximum current draw naximum current draw naximum current draw naximum current draw the of maintaining volt o the unit under tes test 10-cycle current entation of the time I In-rush Current mut available to Distrib	rated osci ate speed int of Inte arallels with sion Syste ecified pro- uracy sha within 5% aw from D 10-cycle r r source, rage within t. Repeat as the In- current c ust be incl	Iloscope or dat d and accuracy rconnection as th Distribution m. Startup sh ocedure. Suffic Il be used to b. In-rush Curr Distribution Pro moving averag real or simulat n +/- 5% of rate t this test five t -rush Current. characteristic a uded in the test	ta <sup>7</sup> , s the all cient rent is vider e. ed, ed, at imes. A long st	- - - - - - - - - - - - - - - - - - -
Advice	Letter No:	4110-E	Issued by		Date Filed		inued) 2/19/2013
Decisio 170C0		12-09-018	Brian K. Cherry Vice President Regulatory Relations		Effective Resolution No.		



Pacific Gas and Electric Company San Francisco, California U 39

Cancelling

Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No. Original

32035-E

		GENE	ELECTRIC RULE NO. 21 RATING FACILITY INTERCONNE	ECTIONS	Sheet 182
N	I. APPEN	DIX ONE			(N)
	Inadvert	ent Export			
	power fr		e unscheduled and uncompensa g Facility (GF) for a duration exe s."		
	offset th sized to Generat Generat System. cannot r small ar	eir facility load b meet their peak or controls to en ing Facility to Di In situations wi amp down quick nounts of power	conditions, an Applicant may ch y installing generation systems demand with load following fun sure conditional export of elect stribution Provider's Distributior here the loading changes rapidl dy enough, the Generating Faci for limited duration. The event for a short time is referred to as	which are optima in the second second second or the second second second second or the second	allý I the I erator I export I
I	Inadvert relevant current reclose here. A	ent Export syste to the interconn ratio, etc.) may r block, transfer tr lso, it should be	Ilowing criteria be the minimum ems. It should be understood th lection study process (15% scre hecessitate additional technical ip, ground bank, etc.) that are n noted that Inadvertent Export n vorked Secondary Systems.	at other factors een results, short requirements (e.g not explicitly noted	circuit I g. I d I
	Prof Sys requ asso Fun ove line line	tective Functions tem faults (per D uired over and al ociated with the ctions may inclu rcurrent/voltage- fault detection a	lity is proposed with Inadvertent s and equipment to detect Distri Distribution Provider's standard bove the basic Protective Funct four options in the Export Scree de, but are not limited to, direct restraint overcurrent Protective ind overcurrent/overvoltage Pro tion. The addition of a ground l e necessary.	bution or Transm practices) may be ions and equipmen. Protective ional Functions for line tective Functions	ission I e I ent I I e-to- I
					(Continued)
	vice Letter No: cision No.	4110-E 12-09-018	lssued by Brian K. Cherry	Date Filed Effective	DRAFT 2/19/2013
171	C0		Vice President Regulatory Relations	Resolution No.	

PF/8	E	

**Pacific Gas and Electric Company** San Francisco, California U 39

Cancelling

Original Cal. P.U.C. Sheet No. Cal. P.U.C. Sheet No.

32036-E

				GENER	ELECTRIC RULE NO. 21 RATING FACILITY INTERCONNECTIONS	Sheet	: 183		
	М.	M. APPENDIX ONE (Cont'd.)							
I		2)	The effect on equipment ratings can be mitigated by limiting the amount of inadvertent export allowed. To a large degree, Voltage Regulation may be similarly handled. The amount of Inadvertent Export is dependent on specific Distribution Provider requirements and should be limited to the lesser of the following values:						
			a.	50% of the Gene	rating Facility Capacity, or				
					uous conductor rating in watts at 0.9 p eeder conductor upstream of the GF (i				
			C.	110% of the large	est load block in the facility, or				
				500kW or some o Provider	other maximum level indicated by Distr	ibution			
			To govern this quantity, a reverse power Protective Function will be provided to trip the connected Generator(s) within two seconds if the proposed amount of Inadvertent Export is exceeded.						
1		3)	Sysi be le reve addi to tr	tem, the expected ess than two occu erse power or und tion to the revers ip the connected	mited impact to the Distribution or Trar d frequency of Inadvertent Export occu urrences per 24-hour periodAdditiona erower Protective Function will be red e power Protective Function described Generator(s) if the duration of reverse ' export) exceeds 60 seconds.	rrences should ally, a separate quired (in I in 2) above)	       (N)		
				(C	continued)				
		Advice Letter No: 4110-E Decision No. 12-09-018			Issued by Date Brian K. Cherry Effec	tive			
	17864				Vice President Re Regulatory Relations	lution No.			