



QUALIFIED GRID SUPPORT UTILITY INTERACTIVE INVERTERS AND CONTROLLERS MEETING MANDATORY FUNCTIONS SPECIFIED IN RULE 14H

Last Updated: 10/19/2018

The following list of certified advanced inverters has been approved by the Companies for use with the Net Energy Metering (Rule 18), Customer Grid-Supply (Rule 23), Customer Grid-Supply Plus (Rule 24), Smart Export (Rule 25), and Standard Interconnection Agreement programs. The equipment manufacturers represent that the designated models with associated firmware have been formally certified to Underwriters Laboratories Standard 1741, Supplement A (“UL-1741 SA”) per the Companies interconnection requirements.

Technology Type	Manufacturer	Model	Firmware Version
Inverter	Apparent Energy	SG424U HI 120VAC	313, Profile #12 ATIRA5488
Inverter	Delta Electronics	DES10JB125K01	MCU: V1.1.6.0, DSP: V1.1.6.0, HMI: V1.1.6.0 or higher, Country Code: HI14H-OHM or HI14H-LM
Inverter	Delta Electronics	E6-TL-US	01.04.01 or higher
Inverter	Delta Electronics	E8-TL-US	01.04.01 or higher
Inverter	Delta Electronics	M28U_120	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M28U_121	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M28U_122	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M4-TL-US	01.04.01 or higher
Inverter	Delta Electronics	M42U_120	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M42U_121	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M42U_122	DSP: V01.3X, V1.4X, V01.5X AFCI: V01.0X, V01.1X
Inverter	Delta Electronics	M5-TL-US	01.04.01 or higher
Inverter	Delta Electronics	M6-TL-US	01.04.01 or higher
Inverter	Delta Electronics	M60U_120	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	M60U_121	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	M60U_122	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	M8-TL-US	01.04.01 or higher
Inverter	Delta Electronics	M80U_120	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	M80U_121	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	M80U_122	DSP: V01.3X, AFCI: V01.0X
Inverter	Delta Electronics	Solivia 3.0 NA G4 TL	02.05.01 or higher and profile HECO, HECO (L+M)
Inverter	Delta Electronics	Solivia 3.8 NA G4 TL	02.05.01 or higher and profile HECO, HECO (L+M)
Inverter	Delta Electronics	Solivia 5.2 NA G4 TL	02.05.01 or higher and profile HECO, HECO (L+M)

Technology Type	Manufacturer	Model	Firmware Version
Inverter	Delta Electronics	Solivia 6.6 NA G4 TL	02.05.01 or higher and profile HECO, HECO (L+M)
Inverter	Delta Electronics	Solivia 7.6 NA G4 TL	02.05.01 or higher and profile HECO, HECO (L+M)
Inverter	Eguana Technologies	ACB05U-LP	V 6.180212
Inverter	Enphase Energy	IQ6-60-2-US may have additional suffixes	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ6-60-5-US may have additional suffixes	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ6-60-ACM-US	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ6PLUS-72-2-US may have additional suffixes	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ6PLUS-72-5-US may have additional suffixes	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ6PLUS-72-ACM-US	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ7-60-x-US where x may be 2, 5 or ACM	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ7PLUS-72-x-US where x may be 2, 5 or ACM	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	Enphase Energy	IQ7X-96-x-US where x may be 2, 5 or ACM	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
Inverter	EnSync, Inc.	LCM-100ACPCU	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
Inverter	EnSync, Inc.	LCM-150ACPCU	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
Inverter	EnSync, Inc.	LCM-250ACPCU	AC Module DSP: 1330 or higher, CPLD: 130 or higher, U2 DSP: 1430, Monitor: 1320 or higher

Technology Type	Manufacturer	Model	Firmware Version
Inverter	EnSync, Inc.	LCM-50ACPCU	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
Inverter	EPC Power Corporation	50-100097	042c314
Inverter	EPC Power Corporation	50-100A-BCDEF-G where A=099; B=61-64; C=A,B,C,Z; D=1-3; E=A,B; F=1,3; G=Re, EX, N	042c314
Inverter	Fronius International GmbH	Primo 10.0-1 208-240	(ReCerbo) V0.3.14.8 or higher, (ROACH03) V0.26.16.0 or higher, (PRIMOFIL15) V0.10.9.0 or higher, Country Setup: HI1, HI5, HI2 or HI4
Inverter	Fronius International GmbH	Primo 11.4-1 208-240	(ReCerbo) V0.3.14.8 or higher, (ROACH03) V0.26.16.0 or higher, (PRIMOFIL15) V0.10.9.0 or higher, Country Setup: HI1, HI5, HI2 or HI4
Inverter	Fronius International GmbH	Primo 12.5-1 208-240	(ReCerbo) V0.3.14.8 or higher, (ROACH03) V0.26.16.0 or higher, (PRIMOFIL15) V0.10.9.0 or higher, Country Setup: HI1, HI5, HI2 or HI4
Inverter	Fronius International GmbH	Primo 15.0-1 208-240, 240V	(ReCerbo) V0.3.14.8 or higher, (ROACH03) V0.26.16.0 or higher, (PRIMOFIL15) V0.10.9.0 or higher, Country Setup: HI1, HI5, HI2 or HI4
Inverter	Fronius International GmbH	Primo 3.8-1 208-240	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMOFIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4, or HI5
Inverter	Fronius International GmbH	Primo 5.0-1 208-240	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMOFIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4, or HI5
Inverter	Fronius International GmbH	Primo 6.0-1 208-240	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMOFIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4, or HI5
Inverter	Fronius International GmbH	Primo 7.6-1 208-240	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMOFIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4, or HI5
Inverter	Fronius International GmbH	Primo 8.2-1 208-240	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMOFIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4, or HI5

Technology Type	Manufacturer	Model	Firmware Version
Inverter	Fronius International GmbH	Symo 10.0-3 208-240	V1.1.3.0 or higher
Inverter	Fronius International GmbH	Symo 10.0-3 208-240 Lite	V1.1.3.0 or higher
Inverter	Fronius International GmbH	Symo 10.0-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 10.0-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 12.0-3 208-240, 208V	V1.1.3.0 or higher
Inverter	Fronius International GmbH	Symo 12.0-3 208-240, 240V	V1.1.3.0
Inverter	Fronius International GmbH	Symo 12.5-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 12.5-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 15.0-3 208, 208N	(ReCerbo) V0.3.14.8 or higher, (ROACH02) V0.26.14.0 or higher, (ECOFIL15US) V0.10.9.0 or higher, Country Setup: HI2 or HI4
Inverter	Fronius International GmbH	Symo 15.0-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 15.0-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 17.5-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 17.5-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 20.0-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 20.0-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 22.7-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 22.7-3 480 Lite	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 24.0-3 480	V1.1.5.1 or higher
Inverter	Fronius International GmbH	Symo 24.0-3 480 Lite	V1.1.5.1 or higher
Inverter	Ingeteam Power Technology	INGECON SUN 1000TL U B360	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1110TL U B400	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1165TL U B420	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1170TL U B450	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1190TL U B430	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1220TL U B440	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1245TL U B480	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1250TL U B450	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1275TL U B460	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1400TL U B540	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1560TL U B600	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1600TL U B615	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1640TL U B630	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1665TL U B640	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1690TL U B650	ABK1000

Technology Type	Manufacturer	Model	Firmware Version
Inverter	Ingeteam Power Technology	INGECON SUN 1715TL U B660	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1740TL U B670	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 1800TL U B690	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 610TL U B220	ABK1000
Inverter	Ingeteam Power Technology	INGECON SUN 830TL U B300	ABK1000
Inverter	OutBack Power Technologies	FXR2524A	001.006.063 or higher
Inverter	OutBack Power Technologies	FXR3048A	001.006.063 or higher
Inverter	OutBack Power Technologies	Radian GS4048A	001.006.063 or higher
Inverter	OutBack Power Technologies	Radian GS8048A	001.006.063 or higher
Inverter	OutBack Power Technologies	SBX5048-120/240	NPC: 0.0.0.2.2.0.9352, PBM: 0.3.1.0.0.0.9359
Inverter	OutBack Power Technologies	VFXR3524A	001.006.063 or higher
Inverter	OutBack Power Technologies	VFXR3648A	001.006.063 or higher
Inverter	Pika Energy	X11402	11430
Inverter	Pika Energy	X11403	11430
Inverter	Pika Energy	X7601	11430
Inverter	Pika Energy	X7602	11430
Inverter	Pika Energy	X7603	11430
Inverter	Rhombus Energy Solutions	BESI-50kW-480	00062118/2867
Inverter	Rhombus Energy Solutions	BESS-50kW-480	00062118/2867
Inverter	Sicon S.r.l.	SUN-ES100ET20UL+ Transformer SUN-MO-TR100UL	HMI v. 5.00, uC v. 5.00, DSP v. 4.00 and CDME v. 5.00
Inverter	Sicon S.r.l.	SUN-ES33KET20UL w/ external transformer	HMI v. 5.00, uC v. 5.00, DSP v. 4.00 and CDME v. 5.00
Inverter	Sicon S.r.l.	SUN-ES33KTR20UL	HMI v. 5.00, uC v. 5.00, DSP v. 4.00 and CDME v. 5.00
Inverter	Sicon S.r.l.	SUN-ES66KET20UL w/ external transformer	HMI v. 5.00, uC v. 5.00, DSP v. 4.00 and CDME v. 5.00
Inverter	Sicon S.r.l.	SUN-ES66KTR20UL	HMI v. 5.00, uC v. 5.00, DSP v. 4.00 and CDME v. 5.00
Inverter	SINEXCEL INC	PWS1-100K-NA	AC module DSP:1330, CPLD: 130, U2 DSP:1430, Monitor:1320
Inverter	SINEXCEL INC	PWS1-150K-NA	AC module DSP:1330, CPLD: 130, U2 DSP:1430, Monitor:1320
Inverter	SINEXCEL INC	PWS1-250K-NA	AC module DSP:1330, CPLD: 130, U2 DSP:1430, Monitor:1320
Inverter	SINEXCEL INC	PWS1-50K-NA	AC module DSP:1330, CPLD: 130, U2 DSP:1430, Monitor:1320
Inverter	SMA America, LLC	SB 3.0-1SP-US-40	02.03.01.R or higher
Inverter	SMA America, LLC	SB 3.8-1SP-US-40	02.03.01.R or higher
Inverter	SMA America, LLC	SB 5.0-1SP-US-40	02.03.01.R or higher

Technology Type	Manufacturer	Model	Firmware Version
Inverter	SMA America, LLC	SB 6.0-1SP-US-40	02.03.01.R or higher
Inverter	SMA America, LLC	SB 7.0-1SP-US-40	02.03.01.R or higher
Inverter	SMA America, LLC	SB 7.7-1SP-US-40	02.03.01.R or higher
Inverter	SMA America, LLC	STP 12000TL-US-10	02.84.01.R or higher
Inverter	SMA America, LLC	STP 15000TL-US-10	02.84.01.R or higher
Inverter	SMA America, LLC	STP 20000TL-US-10	02.84.01.R or higher
Inverter	SMA America, LLC	STP 24000TL-US-10	02.84.01.R or higher
Inverter	SMA America, LLC	STP30000TL-US-10	02.84.01.R or higher
Inverter	SMA America, LLC	STP50-US-40	01.05.03.R or higher
Inverter	SolarEdge	SE10000A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE10000H-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.0.350 or higher
Inverter	SolarEdge	SE100KUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE10KUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE11400A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE11400H-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.0.350 or higher
Inverter	SolarEdge	SE14.4KUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE20KUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE3000A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE3000H-USXXXXXXXX	2.0.140 or higher
Inverter	SolarEdge	SE33.3KUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE3800A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE3800H-USXXXXXXXX	2.0.140 or higher
Inverter	SolarEdge	SE43.2KUSUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher
Inverter	SolarEdge	SE5000A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE5000H-USXXXXXXXX	2.0.140 or higher
Inverter	SolarEdge	SE6000A-USXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE6000H-USXXXXXXXX	2.0.140 or higher
Inverter	SolarEdge	SE66.6KUSUSXXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.19.759 or higher

Technology Type	Manufacturer	Model	Firmware Version
Inverter	SolarEdge	SE7600A-USXXXXXXX where X can be blank, letters a-z, or numbers 0-9	2.52.410 or higher
Inverter	SolarEdge	SE7600H-USXXXXXXX	2.0.140 or higher
Inverter	SolarEdge	SE9KUSXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
Inverter	SunPower	MI-C-320-US208/240-1X	IC=16131, OC= 16143, HI GSUI 14H 2018 OMH profile or HI GSUI 14H 2018 +V/W
Inverter	SunPower	SPR-12000m-3	02.84.01.R or higher
Inverter	SunPower	SPR-15000m-3	02.84.01R or higher
Inverter	SunPower	SPR-20000m-3	02.84.01.R or higher
Inverter	SunPower	SPR-24000m-3	02.84.01.R or higher
Inverter	SunPower	SPR-30000m-3	02.84.01.R or higher
Inverter	SunPower	SPR12000M-3-H	02.84.01.R or higher
Inverter	SunPower	SPR15000m-3-H	02.84.01.R or higher
Inverter	SunPower	SPR20000m-3-H	02.84.01.R or higher
Inverter	SunPower	SPR24000m-3-H	02.84.01.R or higher
Inverter	Tabuchi Electric Co.	THD-S55P3B-US	4.10, Service Mode "HECO"
Inverter	Tabuchi Electric Co.	THD-S55P3BB-US	4.10, Service Mode "HECO"
Inverter	Tesla	1092170-xx-y (AC Powerwall 2)	926d037 Country codes: HI14H-Oahu, HI14H-Hawaii, HI14H-Maui, HI14H-Lanai or HI14H-Molokai
Inverter	Tesla	1095371-xx-y (Powerpack 2)	c8cd4d8 Country Codes 60Hz_480V_3_HI14H:2016_Oahu, 60Hz_480V_3_HI14H:2016_Lanai



QUALIFIED GRID SUPPORT UTILITY INTERACTIVE INVERTERS AND CONTROLLERS AND EQUIPMENT FOR CUSTOMER SELF-SUPPLY SYSTEMS

Last Updated: 10/19/2018

The following list of certified advanced inverters with associated equipment has been approved by the Companies for use with the Customer Self-Supply (Rule 22) program. The equipment manufacturers represent that the designated models with associated firmware have been formally certified to Underwriters Laboratories Standard 1741, Supplement A ("UL-1741 SA") per the Companies interconnection requirements.

Technology Type	Manufacturer	Model	Firmware Version
CSS System	Apparent Energy	SG424U HI 120VAC	313, Profile #12 ATIRA5488
CSS System	Delta Electronics	DES10JB125K01 w/ PCS Manager Gold V2.03, or The 3rd Party Contoller	MCU: V1.1.6.0, DSP: V1.1.6.0, HMI: V1.1.6.0 or higher, Country Code: HI14H-OHM or HI14H-LM
CSS System	Delta Electronics	E6-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	E8-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	M4-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	M5-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	M6-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	M8-TL-US w/ External Meter + Delta Gateway or Tesla Gateway	01.04.01 or higher
CSS System	Delta Electronics	Solivia 3.0 NA G4 TL w/ Energy Management Meter, Delta Gateway or SolarCity Gateway	02.05.01 or higher and profile HECO, HECO (L+M)
CSS System	Delta Electronics	Solivia 3.8 NA G4 TL w/ Delta Gateway or SolarCity Gateway	02.05.01 or higher and profile HECO, HECO (L+M)
CSS System	Delta Electronics	Solivia 5.2 NA G4 TL w/ Energy Management Meter, Delta Gateway or SolarCity Gateway	02.05.01 or higher and profile HECO, HECO (L+M)
CSS System	Delta Electronics	Solivia 6.6 NA G4 TL w/ Energy Management Meter, Delta Gateway or SolarCity Gateway	02.05.01 or higher and profile HECO, HECO (L+M)

Technology Type	Manufacturer	Model	Firmware Version
CSS System	Delta Electronics	Solivia 7.6 NA G4 TL w/ Energy Management Meter, Delta Gateway or SolarCity Gateway	02.05.01 or higher and profile HECO, HECO (L+M)
CSS System	Eguana Technologies	ACB05U-LP w/ E-Gear EMC	V 6.180212
CSS System	Enphase Energy	IQ6-60-2-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ6-60-5-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ6-60-ACM-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ6PLUS-72-2-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ6PLUS-72-5-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and HEI SRD V 1.1, O+M+H or L+M CSS w/VW, no VW, or CGS w/VW, no VW
CSS System	Enphase Energy	IQ6PLUS-72-ACM-US w/ ENV-IQ-AM1-240 or X-IQ-AM1-240-B both with optional CT-200-SPLIT and disconnecting relay or contactor	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ7-60-x-US where x may be 2, 5, ACM or B w/ ENV-IQ-AM1-240 and opt CT-200-SPLIT and a disconnecting relay or contactor or AC Combiner box X-IQ-AM1-240-B or X-IQ-AM1-240-2	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ7PLUS-72-x-US where x may be 2, 5, ACM or B w/ ENV-IQ-AM1-240 and opt CT-200-SPLIT and a disconnecting relay or contactor or AC Combiner box X-IQ-AM1-240-B or X-IQ-AM1-240-2	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CGS or CSS w/VW or no VW or HEI SRD V1.1 L+M, CGS or CSS w/VW or no VW
CSS System	Enphase Energy	IQ7X-96-x-US where x may be 2, 5, ACM w/ ENV-IQ-AM1-240 and opt CT-200-SPLIT and a disconnecting relay or contactor or AC Combiner box X-IQ-AM1-240-B or X-IQ-AM1-240-2	v02.12.00 and grid profile HEI SRD V1.1 O+M+H CSS w/VW or no VW or HEI SRD V1.1 L+M, CSS w/VW or no VW

Technology Type	Manufacturer	Model	Firmware Version
CSS System	EnSync, Inc.	LCM-100ACPCU w/ EnSync DER Flex, Egauge EG3000 series or equivalent and Continental Control Systems Accu-CT series or equivalent	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
CSS System	EnSync, Inc.	LCM-150ACPCU w/ EnSync DER Flex, Egauge EG3000 series or equivalent and Continental Control Systems Accu-CT series or equivalent	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
CSS System	EnSync, Inc.	LCM-250ACPCU w/ EnSync DER Flex, Egauge EG3000 series or equivalent and Continental Control Systems Accu-CT series or equivalent	AC Module DSP: 1330 or higher, CPLD: 130 or higher, U2 DSP: 1430, Monitor: 1320 or higher
CSS System	EnSync, Inc.	LCM-50ACPCU w/ EnSync DER Flex, Egauge EG3000 series or equivalent and Continental Control Systems Accu-CT series or equivalent	AC Module DSP:1330 or higher, CPLD:130 or higher, U2 DSP:1430 or higher & Monitor:1320 or higher
CSS System	Fronius International GmbH	Primo 3.8-1 208-240 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMO FIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4 or HI5 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Primo 3.8-1 208-240 w/ JLM Energy Energizr 200	V1.1.1.0 or higher
CSS System	Fronius International GmbH	Primo 5.0-1 208-240 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMO FIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4 or HI5 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Primo 5.0-1 208-240 w/ JLM Energy Energizr 200	V1.1.1.0 or higher
CSS System	Fronius International GmbH	Primo 6.0-1 208-240 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMO FIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4 or HI5 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Primo 6.0-1 208-240 w/ JLM Energy Energizr 200	V1.1.1.0 or higher
CSS System	Fronius International GmbH	Primo 7.6-1 208-240 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMO FIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4 or HI5 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Primo 7.6-1 208-240 w/ JLM Energy Energizr 200	V1.1.1.0 or higher

Technology Type	Manufacturer	Model	Firmware Version
CSS System	Fronius International GmbH	Primo 8.2-1 208-240 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.7 or higher, (ROACH02) V0.26.9.0 or higher, (PRIMO FIL8) V0.10.2.10 or higher, Country Setup: HI1, HI2, HI4 or HI5 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Symo 10.0-3 208-240 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 12.0-3 208-240 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 12.5-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 15.0-3 208 w/ Datamanager 2.0 and Fronius Smart Meter	(ReCerbo) V0.3.14.8 or higher, (ROACH02) V0.26.14.0 or higher, (ECOFIL15US) V0.10.9.0 or higher, Country Setup: HI2 or HI4 and Datamanager FW 3.8.1-6 or higher and Smart Meter 240/480/600 V-3 UL
CSS System	Fronius International GmbH	Symo 15.0-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 17.5-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 20.0-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 22.7-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	Fronius International GmbH	Symo 24.0-3 480 w/ Fronius Smart Meter	0.3.7.0 or higher and Datamanager FW 3.7.2 or higher
CSS System	OutBack Power Technologies	FXR2524A	001.006.063 or higher
CSS System	OutBack Power Technologies	FXR3048A	001.006.063 or higher
CSS System	OutBack Power Technologies	Radian GS4048A	001.006.063 or higher
CSS System	OutBack Power Technologies	Radian GS4048A w/ Sonnen ECO	001.006.063 or higher
CSS System	OutBack Power Technologies	Radian GS8048A	001.006.063 or higher
CSS System	OutBack Power Technologies	Radian GS8048A w/ Sonnen ECO	001.006.063 or higher
CSS System	OutBack Power Technologies	SBX5048-120/240	NPC: 0.0.0.2.2.0.9352, PBM: 0.3.1.0.0.0.9359
CSS System	OutBack Power Technologies	VFXR3524A	001.006.063 or higher
CSS System	OutBack Power Technologies	VFXR3648A	001.006.063 or higher
CSS System	Pika Energy	X11402 w/ no additional equipment required	11430
CSS System	Pika Energy	X11403 w/ no additional equipment required	11430

Technology Type	Manufacturer	Model	Firmware Version
CSS System	Pika Energy	X7601 w/ no additional equipment required	11430
CSS System	Pika Energy	X7602 w/ no additional equipment required	11430
CSS System	Pika Energy	X7603 w/ no additional equipment required	11430
CSS System	SINEXCEL INC	PWS1-100K-NA	AC module DSP:1330, CPLD:130, U2 DSP:1430, Monitor:1320
CSS System	SINEXCEL INC	PWS1-150K-NA	AC module DSP:1330, CPLD:130, U2 DSP:1430, Monitor:1320
CSS System	SINEXCEL INC	PWS1-250K-NA	AC module DSP:1330, CPLD:130, U2 DSP:1430, Monitor:1320
CSS System	SINEXCEL INC	PWS1-50K-NA	AC module DSP:1330, CPLD:130, U2 DSP:1430, Monitor:1320
CSS System	SolarEdge	SE10000A-USXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE10000H-USXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.350 or higher
CSS System	SolarEdge	SE100KUSXXXXXXX where X can be blank, letters a-z, or numbers 0-9, where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE10KUSXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE11400A-USXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE11400H-USXXXXXXX where X can be blank, letters a-z, or numbers 0-9, where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.350 or higher
CSS System	SolarEdge	SE14.4KUSXXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher

Technology Type	Manufacturer	Model	Firmware Version
CSS System	SolarEdge	SE20KUSXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE3000A-USXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE3000H-USXXXXXX w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher
CSS System	SolarEdge	SE33.3KUSXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE3800A-USXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE3800H-USXXXXXX w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher
CSS System	SolarEdge	SE43.2KUSUSXXXXXX where X can be blank, letters a-z, or numbers 0-9, where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE5000A-USXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE5000H-USXXXXXX w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher
CSS System	SolarEdge	SE6000A-USXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher
CSS System	SolarEdge	SE6000H-USXXXXXX w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher

Technology Type	Manufacturer	Model	Firmware Version
CSS System	SolarEdge	SE66.6KUSUSXXXXXX where X can be blank, letters a-z, or numbers 0-9, where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SolarEdge	SE7600A-USXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.52.410 or higher
CSS System	SolarEdge	SE7600H-USXXXXXX w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.0.140 or higher
CSS System	SolarEdge	SE9KUSXXXXXX where X can be blank, letters a-z, or numbers 0-9, w/ SolarEdge Electricity Meter or 3rd party metering equipment	2.19.759 or higher
CSS System	SunPower	MI-C-320-US208/240-1X w/ SunPower PVS5X Monitoring HW w/ built in consumption and production meters and Net Consumption and production CT's	IC=16131, OC= 16143, HI GSUI 14H 2018 OMH profile or HI GSUI 14H 2018 +V/W
CSS System	Tabuchi Electric Co.	THD-S55P3B-US w/ EIBS	4.10, Service Mode "HECO"
CSS System	Tabuchi Electric Co.	THD-S55P3BB-US w/EIBS	4.10, Service Mode "HECO"
CSS System	Tesla	1092170-xx-y (AC Powerwall 2) w/ Tesla Backup Gateway (1118431-xx-y) or Tesla Gateway (1099752-xx-y)	926d037 Country codes: HI14H-Oahu, HI14H-Hawaii, HI14H-Maui, HI14H-Lanai or HI14H-Molokai
CSS System	Tesla	1095371-xx-y (Powerpack 2) w /SEL-3505 (RTAC)	c8cd4d8 Country Codes 60Hz_480V_3_HI14H:2016_Oahu, 60Hz_480V_3_HI14H:2016_Lanai