

ELECTRIC EQUIPMENT REVIEWED PURSUANT TO ORDER U-15787

Prior to purchase of any equipment, a project developer should consult with DTE Energy regarding the potential feasibility for safe and reliable interconnection of the specific proposed project with DTE Energy's system.

DTE Energy makes no representation that any particular piece of equipment listed below is free from design or manufacturing defects (or defects of any kind). Further, DTE Energy neither endorses nor makes any warranty of any kind with regard to the equipment identified below.

APPROVED INVERTERS (Updated 1/4/2013)

Generation Sources	Manufacture	Model	Model #	Rated Output (kW)	Datasheet
Wind Systems	Cascade Engineering, Inc.	Swift Wind	GCI 1500	1	Swift Wind GCI 1500
	Mariah Power	Windspire		1.2	Windspire
	Southwest Windpower	Skystream	3.7	2.4	Skystream
PV Systems	Advanced Energy	Solaron	333	333	Solaron Models
			250	250	
			500	500	
			500HE	500	
	Enphase Micro-Inverters		M175	0.175	M175-M200
			M190	0.19	M190 Model
			M210	0.21	M210 Model
			M215	0.215	M215
			D380	0.38	D380
	Flextronic	SE	3300US	3.3	SE Model
			3800US	3.8	
			5000US	5	
6000US			6		
Fronius USA	IG	2000	2	2000-3000-2500	
		3000	2.7		
		2500-LV	2.35		
		4000	4	4000-5100-4500	
	5100	5.1			
	4500-LV	4.5			
	IG Plus	3.0-1	3		IG Plus
		3.8-1	3.8		
5.0-1		5			
6.0-1		6			
7.5-1		7.5			
10.0-1		10			
11.4-1	11.4				
Kaco	Blue Planet	1501xi	1.5	1501xi	
		2901xi	3.1	2901xi	
		3601xi	4	3601xi	

APPROVED INVERTERS

Generation Sources	Manufacture	Model	Model #	Rated Output (kW)	Datasheet
PV Systems	<u>Outback</u>	GTFX	2524 3048	2.5 3	<u>GTFX - GVFX Series</u>
		GVFX	3524 3648	3.5 3.6	
	<u>Power-One</u>	PVI	5000 6000	5 6	<u>5000-6000</u>
	<u>PV Powered</u>	PVP	1100 2000 2500 2800 3000 3500 4600 4800 5200	1.1 2.2 2.5 2.8 3 3.5 4.6 4.8 5.2	<u>1100-5200</u>
	<u>Renovo Power Technology</u>	RN	5000	5	<u>RN Model</u>
	<u>Solar Bridge</u>	P	235 250	0.235 0.250	
	<u>Solar Edge</u>	SE	3300 4000 5000 6000	3.3 4 5 6	<u>3300 - 6000</u>
	<u>SMA Solar Technology</u>	Sunny Boy	3000US 4000US 5000US 6000US 7000US 8000US 9000US 10000US	3 4 5 6 7 8 9 10	<u>3000-4000</u> <u>5000-6000-7000</u> <u>8000-9000-10000</u>
	<u>Solectria</u>	PVI	1800 2500 3000 @ 240V 4000@240V 5000@240V 5300@240V 13KW 15KW 60KW 82KW	1.8 2.5 2.9 3.9 4.9 5.3 13.2 15 60 83	<u>1800-2500</u> <u>3000-4000-5000-5100</u> <u>13-15</u> <u>60-82-95</u>

APPROVED INVERTERS

Generation Sources	Manufacture	Model	Model #	Rated Output (kW)	Datasheet
PV Systems	SunPower	SPR	3000m	3	3000-4000m
			4000m@240V	4	
			5000m	5	5-6-7000m
			6000m	6	
			7000m	7	
	Xantrex	GT	2.8@240V	2.8	GT Models
			3.3N@240V	3.3	
			3.8@240V	3.8	
			4.0N@240V	4	
			5.0@240V	5	
Xantrex	XW	6048-120/240V	6	XW models	
		4548-120/240V	4.5		
		4024-120/240	4		

DTE Energy Approved Relays

Manufacturer	Model	Undervoltage (27)	Reverse Power (32)	Neutral Overcurrent (51N)	Time Overcurrent with Voltage Restraint (51V)	Overvoltage (59)	Neutral Overvoltage (59N)	Timing (62)	Directional Overcurrent (67)	Over/Under Frequency (81O/U)	Transfer Trip
<i>Utility Grade</i>											
Basler	BE1-27	X									
	BE1-27/59	X				X					
	BE1-32R* (1Φ or 3 Φ)		X								
	BE1-32 O/U		X								
	BE1-59					X					
	BE1-81 O/U									X	
	BE1-IPS100	X	X	X	X	X	X	X	X	X	
Beckwith	M-3520		X								
General Electric	CV-2	X									
	CV-4					X					
	IAC53			X							
	IAV51					X					
	IAV54	X									
	IJCV				X						
	PJV					X	X				
	SAM							X			
	MDS**										X
Schweitzer Engineering Laboratories	SEL-351A	X		X		X	X	X	X	X	
	SEL-351-7	X	X	X		X	X	X	X	X	
	SEL-751A	X	X	X		X	X	X		X	
	2505/2506										X
Westinghouse	CO-8			X							
	CVD	X									
	SV-1					X	X				
	TD-5							X			
RFL Industries	6710									X	
<i>Industrial Grade</i>											
Agastat	7000 Series							X			
Basler	BE3-GPR	X				X				X	
	BE4-32* (1 Φ)		X								

*Requires separate time delay relay.

**Requires a radio access study for the site, and an SEL 2505/2506 for use.

Note: The exact model or style of the above listed relays will be dependent upon the particular site-specific application, or DECo specification.