

Matrix Energy's grid-tie systems remove the guesswork

Ontario's Feed-in Tariff program has unleashed a huge opportunity for our domestic solar industry by providing a guaranteed, healthy return on your customer's investment in renewable energy technology.

Matrix Energy is pleased to offer our **Green Power Innovator™** grid-tie systems for both FIT and microFIT applications that will continuously feed power back to the Utility whenever sunlight is available. For customers in more densely populated areas of Ontario that translates into about 1200 kWh per year for every kilowatt installed. Complete electrical schematics are available for ease of system installation and utility approval.

Take the guess work out of matching your PV array and inverter with Matrix Energy's grid-tie combinations from 1.6 to 30 kWp. The table shows the optimum array and inverter combinations and expected total annual and per unit area energy harvest for the GTA, based on historical averages for insolation, high and low temperatures and equipment specifications. Our combinations feature industry leading photovoltaic modules from SolarWorld and Kyocera as well as inverters from Solectria and Xantrex.



Solectria PVI 3000 - 5300kW shown

Choose from the wide variety of roof, ground or pole mounting systems available from Matrix or your local suppliers to suit your customer's site conditions. In combination of the mounts, installation labour and locally supplied balance of system, your complete product can meet the program's "Ontario content" criteria.

Need back-up power too? Ask about our **Green Power Innovator™ Standby-Grid-Tie** systems that will not only allow your customers to feed power back into the grid, but also offer them the security of back-up electricity in the event of a power outage.

During the day the solar array maintains the battery bank and feeds any excess power back to the Utility through the inverter. During a black-out the sealed battery bank will provide the electricity to run various loads from lighting, furnaces and refrigerators in the home to lighting, phone and computer systems for businesses. The *Standby-Grid-Tie* packages include the solar array, inverter and sealed battery bank though you may add more solar modules at a later date to increase your total grid-tie power output.

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Choose your module's array size (kWp)	Solar array configuration	Select an inverter		Annual energy production (kWh) est.
		Solectria	Xantrex	
SolarWorld SW175				
1.4	8 X SW175	PVI1800	NA	1,666
2.5	14 X SW175	PVI2500	GT2.8	2,916
3.2	18 X SW175	PVI3000	GT3.3	3,749
3.9	22 X SW175	PVI4000	GT4.0	4,582
5.3	30 X SW175	PVI5000	GT5.0	6,248
9.5	54 X SW175	2 x PVI5000	2 X GT5.0	11,246
9.8	56 X SW175	PVI13KW	NA	11,662
14	80 X SW175	PVI13KW	NA	16,660
16.8	96 X SW175	PVI15KW	NA	19,992
30.8	176 X SW175	2 x PVI15KW	NA	36,652

SolarWorld SW230

1.8	8 X SW230	PVI1800	NA	2,189
2.5	11 X SW230	PVI2500	GT2.8	3,009
3.0	13 X SW230	PVI3000	GT3.3	3,556
4.1	18 X SW230	PVI4000	GT4.0	4,924
5.1	22 X SW230	PVI5000	GT5.0	6,019
9.7	42 X SW230	2 x PVI5000	2 X GT5.0	11,491
9.2	40 X SW230	PVI13KW	NA	10,943
13.8	60 X SW230	PVI13KW	NA	16,415
16.1	70 X SW230	PVI15KW	NA	19,159
29.9	130 X SW230	2 x PVI15KW	NA	35,581

Kyocera KD210

1.9	9 X KD210	PVI1800	NA	2,249
2.5	12 X KD210	PVI2500	GT2.8	2,999
2.9	14 X KD210	PVI3000	GT3.3	3,497
5.1	24 X KD210	PVI5000	GT5.0	5,997
9.7	46 X KD210	2 x PVI5000	2 X GT5.0	11,491
9.2	44 X KD210	PVI13KW	NA	10,995
13.9	66 X KD210	PVI13KW	NA	16,493
16.2	77 X KD210	PVI15KW	NA	19,242
30	143 X KD210	2 x PVI15KW	NA	35,736

Solar Modules

Matrix Energy Part #	Supplier Model #	Description
13-05-019	SW175	SolarWorld 175 W, 44.4 Voc, 4.89 Imp
13-05-026	SW230	SolarWorld 230 W, 36.9 Voc, 7.76 Imp
13-04-022	KD21GX-LPU	Kyocera 210 W, 33.2 Voc, 7.9 Imp

Inverters

Matrix Energy Part #	Supplier Model #	Description
08-81-001	PVI1800	Solectria, 1.8 kW grid tie inverter, 120/208 or 120/240 VAC, CSA
08-81-002	PVI2500	Solectria, 2.5 kW grid tie inverter, 120/208 or 120/240 VAC, CSA
08-81-003	PVI3000	Solectria, 2.9 kW grid tie inverter, 120/208 or 120/240 VAC
08-81-004	PVI4000	Solectria, 3.9 kW grid tie inverter, 120/208 or 120/240 VAC
08-81-005	PVI5000	Solectria, 4.9 kW grid tie inverter, 120/208 or 120/240 VAC
08-81-007	PVI13kW	Solectria, 13.2 kW grid tie inverter, 3 PH, specify 208 or 240 or 480 VAC
08-81-009	PVI15kW	Solectria, 15.0 kW grid tie inverter, 3 PH, specify 208 or 240 or 480 VAC
08-16-193	GT2.8	Xantrex, 2.8 kW grid tie inverter, 208/240 VAC
08-16-194	GT3.3	Xantrex, 3.3 kW grid tie inverter, 208/240 VAC
08-16-195	GT4.0	Xantrex, 4 kW grid tie inverter, 208/240 VAC
08-16-196	GT5.0	Xantrex, 5 kW grid tie inverter, 208/240 VAC

Optional Equipment

Matrix Energy Part #	Supplier Model #	Description
08-81-025	SRV-ID-RES	Solectria web based 3 year monitoring, PVI1800-5300
08-81-026	SRV-ID-RES-ADD	Solectria Interface cable for additional inverter
08-81-017	WIH-020062	Solectria cable to connect the computer to inverter & change voltage. PVI 1800 & 2500 only
08-81-027	SRV-ID-COM1	Solectria web based 3 year monitoring, PVI13-15kW, base
08-81-028	SRV-ID-COM1-ADD	Solectria web based 3 year monitoring, PVI13-15kW, add-on for additional inverter
08-81-031	SRV-WTHR	Solectria weather station including irradiance, ambient & module temp sensors

Note:

- All Solectria and Xantrex inverters of 5 kW and less are voltage self sensing except the PVI1800 and PVI2500
- Solectria PVI13kW and PVI15kW inverters are 3 phase type.



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