

# Energy Platform EP1

## Handheld Electrical Energy and Power Demand Analyzer

- ▶ *Ideal for Commercial, Industrial, and Institutional Facilities*
- ▶ *Understand Utility Costs*
- ▶ *Identify Energy Reduction Opportunities*
- ▶ *Explore Alternative Energy Solutions*
- ▶ *Determine Carbon Footprint*



**The Energy Platform** is an innovative tool for gathering, recording and reporting “where, when and how much” electrical energy is used. Whether you want to understand your utility costs, improve efficiency, install energy savings devices, explore alternative energy solutions or even determine your carbon footprint, the Dranetz Energy Platform provides the essential and economical tool to meet your energy monitoring requirements.

The Energy Platform’s 1/4 VGA color touch display, automatic setups, easy to read Demand & Energy Reporting display and Energy Platform Report Writer (EPRW) software are important features of this powerful yet simple to use instrument.

The Energy Platform measures over 50 electrical parameters including voltage, current, power, power factor, harmonic distortion plus forward / reverse energy - essential in distributed generation applications like solar or wind power systems.

The Energy Platform is offered as a complete package equipped with voltage cables and current transformers, compact flash data card, software and power supply, all in a soft carrying case. And the optional Point of Utilization Monitoring Adaptor (PUMA) provides a safe and simple connection mechanism for measuring plug-connected single phase loads such as an air conditioner or refrigerator.

The Energy Platform is the one tool you need to get a handle on your facility energy usage.

- ▶ Advanced Demand, Energy, Harmonics and Power Analysis – perfect for energy reduction/savings and alternative energy applications
- ▶ High accuracy & high resolution
  - 0.1% V&I
  - 256 samples /cycle
  - continuous monitoring
- ▶ Automatic setup – no learning curve!
- ▶ Intuitive color touch screen
- ▶ Easy to read Demand & Energy reports
- ▶ Carbon Footprint Calculator – evaluate environmental impact
- ▶ AC and DC measurements
- ▶ Triggered event detection on all parameters
- ▶ Eight Channels, 4 voltage & 4 current. Channel D Differential
- ▶ AC or Battery operated. Built in UPS with 2 hr battery.
- ▶ Energy Platform Report Writer (EPRW) software included, no license

### Automatic Setup - No Learning Curve

The Energy Platform's automatic setup makes for a productive tool right out of the box. Simply connect the EP1 to the load using the voltage probes (included in the package) and CTs (included in the package), energize the circuit, and select "Automatic Setup". The EP1 will identify the circuit type, nominal voltage and current in one step. The detected load details are displayed on the screen for you to review. Once you've selected the type of CTs being used, simply click OK to start metering and monitoring.

### Comprehensive Data Gathering

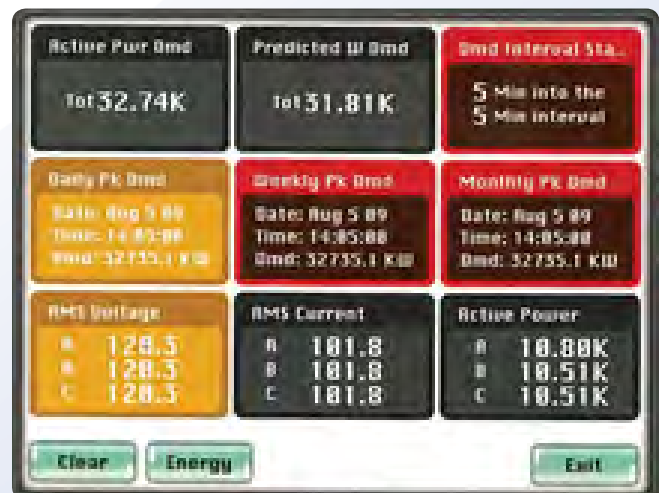
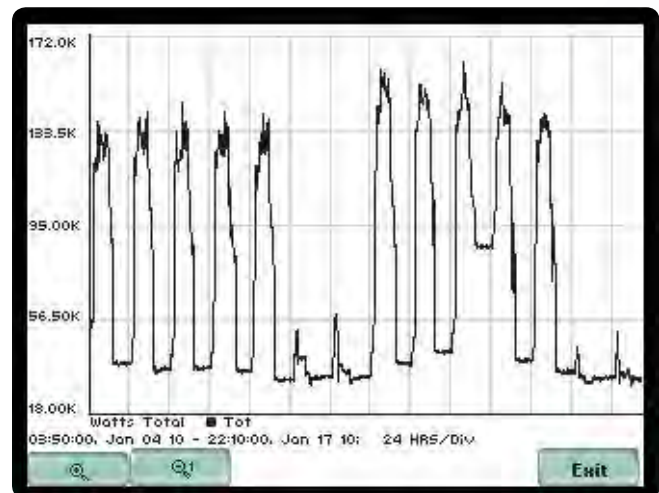
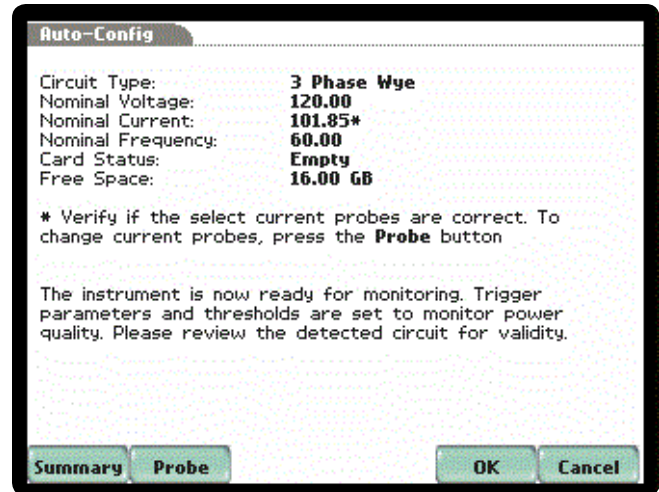
Metering and recording of data over several operating cycles provides the information you need to really understand your energy usage profile. An industrial process that cycles (start to finish) every 15 minutes may only need short term monitoring to capture multiple cycles and to find out what is usual or typical for that load. An office building cycling on a 24-hour basis may require a week or more to determine a typical energy profile. Data gathered is stored in the EP1 compact flash data card and available for display on the instrument or PC screen. In addition to basic power and energy data, the EP1 also measures and records detailed harmonics, interharmonics and subharmonics in accordance with IEC61000-4-7. This data can be valuable in resolving operational problems identified during the course of your energy survey.

### Easy-to-Read Demand & Energy Status

The EP1's color-coded alarm panel displays trigger conditions that have been recorded during the monitoring session. A green square mean no alarm or trigger conditions have been met for that parameter. Yellow means a trigger condition alarm has occurred while the red squares indicate a severe trigger has been met. The panel on the EP1 provides significant time savings and an easy-to-read visual interface as part of the survey database. Other user-selected screens can provide energy usage trend data, summaries of trigger events in chronological sequence, and event details (time stamp, description, duration and min/max while out of limits).

### Carbon Footprint Calculations

The Energy Platform's carbon footprint calculator computes the electrical carbon footprint using a constant from your utility for measured loads based upon your actual monthly usage. Results are displayed in your choice of pounds or kilograms of CO<sub>2</sub>.



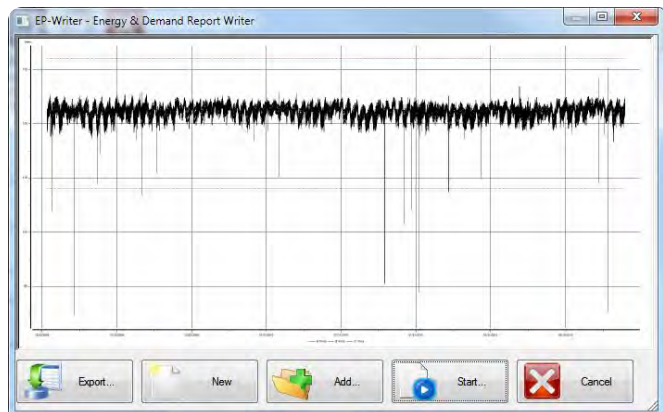
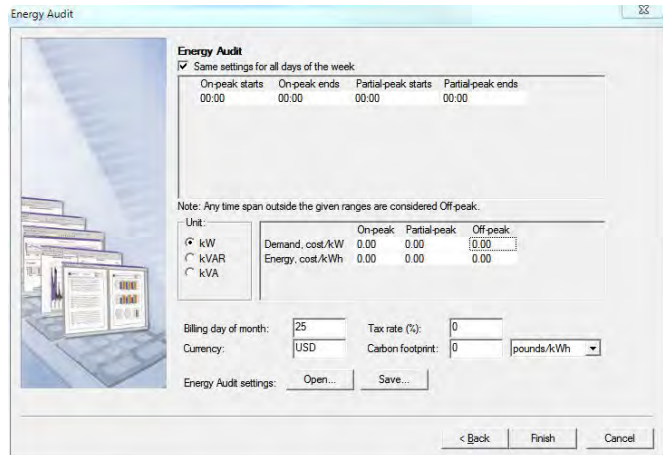
### Reporting the Results

Energy Platform Report Writer (EPRW) software (included with the EP1) summarizes your survey results in easy to read, user selectable reports using your PC. You can create customized reports or just use the automatic feature and let EPRW quickly generate your report without any setup required.

The Energy Audit feature summarizes your energy survey, including your basic billing parameters such as time of use (peak, partial-peak, off-peak), peak demand, energy cost and carbon footprint.

Reports are created in RTF format so you can easily edit your report using any text editor. A data export function is available to bring your data into other software applications such as Microsoft Excel or other compatible software.

For more advanced analysis, the EP1 is fully compatible with DranView, our award-winning power analysis software. DranView is a powerful tool with advanced features and custom report writer. The built-in Rescue Kit can help undo monitoring mistakes such as reversed CTs, wrong scale factors, wrong instrument time and more. DranView's report writer has a variety of report functions available to meet any application and now includes the Energy Audit report also available in EPRW. DranView is used world-wide by thousands of power professionals to analyze data take from Dranetz power quality analyzers and energy monitors.



#### Time of Use Billing

Site: Breaker 32A-5  
 Measured from 07/14/2009 11:12:09.0 to 07/29/2009 02:37:01.0  
 BILLING DAY OF MONTH: 25

#### TIME OF USE COSTS

	DEMAND		
	ON-PEAK (USD)	PARTIAL-PEAK (USD)	OFF-PEAK (USD)
Jul (*)	0.0	0.0	82.4
Aug (*)	0.0	0.0	0.0

	ENERGY CONSUMPTION		
	ON-PEAK (USD)	PARTIAL-PEAK (USD)	OFF-PEAK (USD)
Jul (*)	0.0	0.0	138.2
Aug (*)	0.0	0.0	0.0
<b>Total values</b>	<b>0.0</b>	<b>0.0</b>	<b>192.6</b>

(\*) Indicates partial month.



### Measured Parameters

**Power:**

Volts, Amps, Watts, Volt-Amperes, Volt-Amperes Reactive, True Power Factor, Displacement Power Factor

**Demand:**

Demand, Energy, Forward Energy, Reverse Energy

**Harmonics:**

Harmonics & Interharmonics Per IEC 61000-4-7, THD, TID to 63rd, Crest Factor, K Factor, Transformer Derating Factor, Telephone Influence Factor

### Measurement Specifications

**Voltage:**

(4) Voltage Channels, 1-600 Vrms, AC/DC, 0.1% rdg + 0.05% FS, 256 s/c, 16 bit ADC. Channel A, B, C Single Reference., Channel D Differential Reference

**Current:**

(4) Current Channels, 1-6000 Arms, CT Dependent, AC/DC, 256 s/c, 0.1% Reading + CTs, 16 Bit ADC

**Power:**

W, VA, VAR, 0.2% Reading  $\pm$ 0.1% FS. Per Phase + CTs

**Frequency Range:**

45-65 Hz. Phase Lock Loop, 10 mHz. Resolution

**Distortion:**

VTHD, ITHD, 1% Reading  $\pm$ 0.05% FS. Per Channel + CTs

### General Specifications

**Display:** ¼ VGA Color Touch Interface

**AC Power Supply/Charger:** 90-264 VAC, 47-63 Hz., 20W Max., 2hr Rechargeable Battery

**Size:** (HxWxD): 12" x 2.5" x 8" (30cm x 6.4cm x 20.3cm)

**Weight:** 3.8 lbs (1.8 kg)

**Operating Temperature:** 0 to 50 Degrees C;

**Storage Temperature:** -20 to 55 Degrees C

**Humidity:** To 98% Non-Condensing

**Removable Memory:** Compact Flash, 4GB Min.

### Packages

**EP10-4:**

EP1, Soft Case, Voltage Cable Set, EPRQ Software, CF Card, Power Supply, 4x TR2510 (10A) Clamp-On CT

**EP500-4:**

EP1, Soft Case, Voltage Cable Set, EPRQ Software, CF Card, Power Supply, 4x TR2500 (500A) Clamp-On CT

**EP550-4:**

EP1, Soft Case, Voltage Cable Set, EPRQ Software, CF Card, Power Supply, 4x TR2550 (100A) Clamp-On CT

**EPFLEX3:**

EP1, Soft Case, Voltage Cable Set, EPRQ Software, CF Card, Power Supply, 4x 3000A Flex CT with Power Supply (1x DranFlexXL3003XL + 1x DranFlex3000XL)

### Optional Accessories

**DranView Software:**

DranView PRO

DranView Enterprise

**Point of Utilization Monitoring Adapter (PUMA):**

In-Line Adapter to Easily Measure V & I for Single Phase Loads

**Clamp-On Probes:**

Model TR2501; 100mA - 1.2A

Model TR2510A; 0.1A - 10A

Model TR2550A; 1A - 100A

Model TR2500; 10A - 500A

**Flexible Current Probes:**

DranFLEX3000XL; 30/300/3000A (24", 36", or 48"), 1-Phase

DranFLEX6000XL; 60/600/6000A (24", 36", or 48"), 1-Phase

DranFLEX3003XL/24; 30/300/3000A (24"), 3-Phase

Flex CT Power Supplies Sold Separately

**DC/AC Hall Effect CTs:**

PR150/SP1/SP2; AC or 9V Battery Power

PR1500/SP7/SP8; AC or 9V Battery Power

Power Supplies Sold Separately

**Other:**

BP-PX5; Field Replacement Battery Pack

XBC-PX5; External Battery Charger

SCC-4300; Soft Carrying Case

RSC-4300; Rugged Shipping Container

ENCL-HH; Weather-Resistant Enclosure

FlashReader-USB; US CF Data Card Reader

