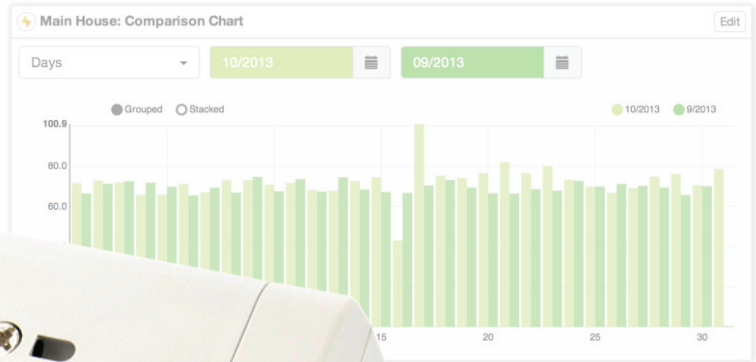
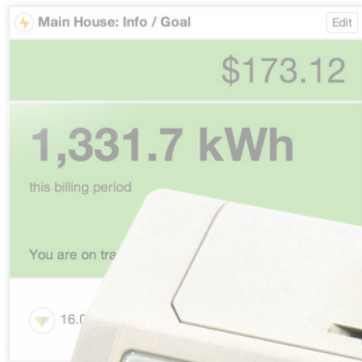
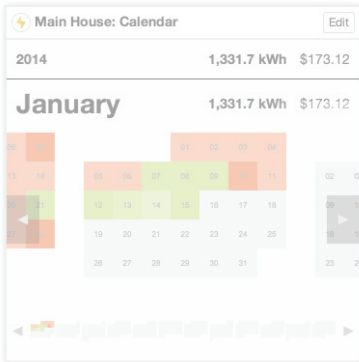
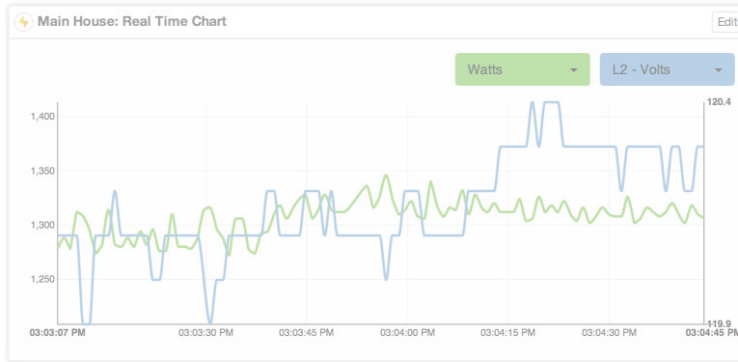
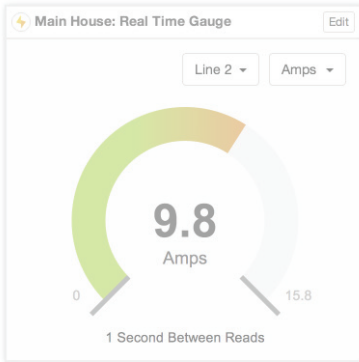


EKM METERING INC.



METERING SOLUTIONS

Save Energy, Save Money, Win.

A new standard in Metering Hardware and services. Unrivalled value and quality.

How did we get here?

The germ of EKM Metering was born out of the real-world needs of our founder and President, Douglas Brouwer. In 2005 he began searching for submetering systems to install on his rental properties in California. He quickly became frustrated by the options available. It seemed that you could either have an affordable system with very limited functionality, or a prohibitively expensive system with decent functionality. The realization that there was a need that wasn't being addressed by any of the established metering companies, is what got the ball rolling for EKM. But it is our desire to create the tools for anyone to be able to understand their energy, water, and gas usage, that drives our culture of innovation. We believe that this understanding is a critical first step in order for conservation to take place. And ultimately, it is this conservation that we hope will limit our collective affect on the planet.



What do we provide?

Now, after years and a number of iterations, we feel that our systems have matured into the best solutions on the market. EKM has developed revenue-grade submeters for nearly any electrical system in common use around the world. Our meters also span a spectrum of functionality from a basic meter read locally on a LCD display, to our universal smart Omnimeters that can meter almost any electrical system when used with the appropriate number of current transformers. To take advantage of the capabilities and smarts of these Omnimeters, we have also developed the EKM Push, our cloud-based meter communication system that provides online access to meter data for free.



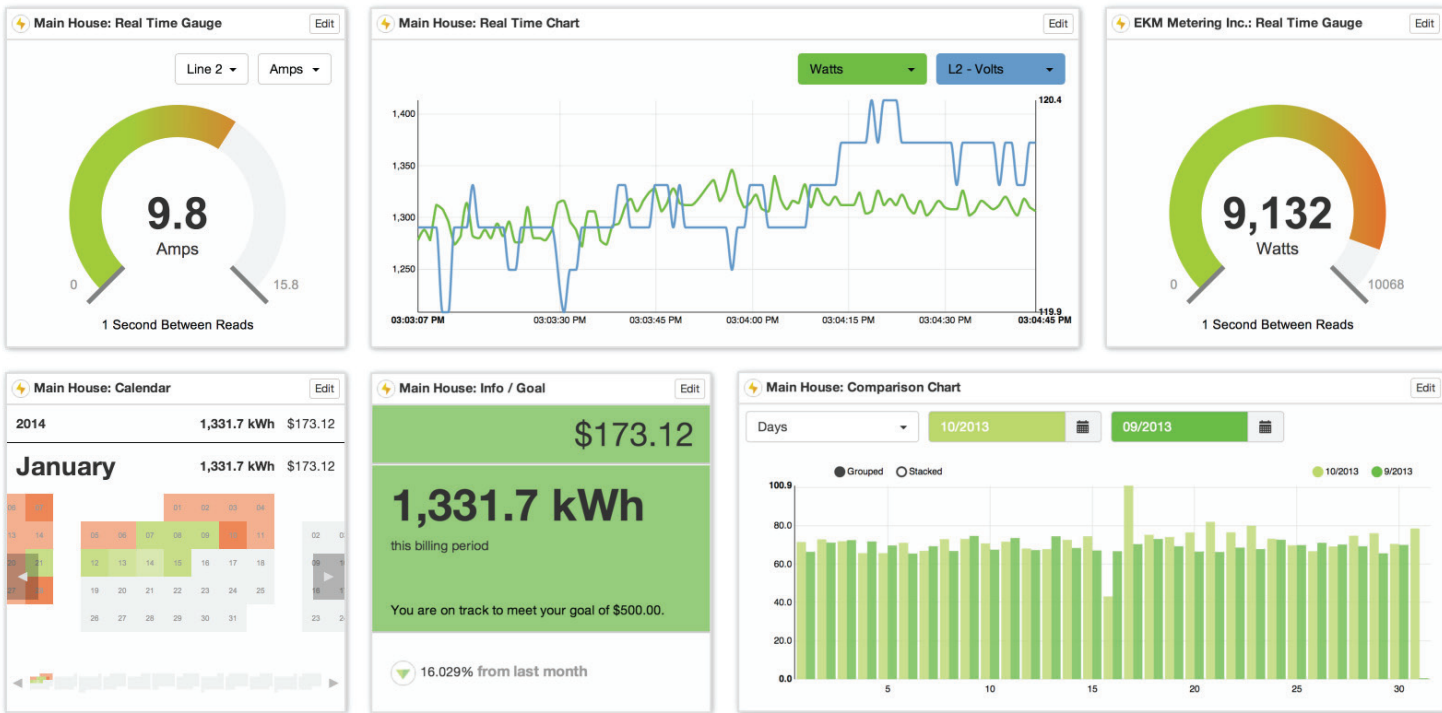
What do we promise?

Our systems offer an incredible value by providing high accuracy, high granularity data for a fraction of the cost of our competitors. In fact, after the initial up-front expense of the hardware, the EKM Push(cloud) service is completely free for any number of meters. The value of this data has far reaching potential as it can be used for anything from monitoring load spikes, performing energy audits, monitoring the performance of solar arrays, or simply for billing purposes.



But why submeter?

Submetering allows landlords and property managers to separate the utilities by rental unit. In cases where multiple rental units share a utility meter, the only way to bill for the utilities is by square footage. At best, the bill is a guess and has little to do with the actual usage of the tenant. In the long run this guesswork can cost landlords and tenants a lot of money. Submetering allows landlords to divide the utility based on the actual usage of a given tenant, and it allows tenants to conserve and have their conservation rewarded with lower bills. We typically see a 15-25% decrease in usage after our submeters are installed, with some instances as high as 50%. Making users accountable can result in significant cost savings for both tenants and property owners. Win-win.



What makes EKM different?

We believe that what we are doing can have a positive monetary impact for our customers and, just as important for us, a positive impact on the planet. Our main motivation is not to maximize profits but to help lower our collective usage of precious resources, by supplying the tools needed for conservation to happen. We have made the decision to provide our products at prices well below those of our competitors, because we want them to be accessible for everyone. To further that goal, we have also made the decision to provide our Push cloud data service for free.

What are the applications?

Multi-tenant submetering: Whether it is an apartment building, commercial space, marina, campground, etc., EKM has a solution that will scale to fit nearly any need. As was mentioned before, no matter the application, our submetering solutions can save landlords and tenants a significant amount of money. In some cases our customers have seen a return on their investment within a just few months.

Industrial: The real-time data that EKM's metering systems produce is ideal for monitoring the performance of machinery and other high-energy equipment. It allows users to monitor health and efficiency, as well as determine which machines are appropriate for load shedding. Reducing operational costs and diagnosing equipment failures before they happen can result in huge savings.

Institutional: In addition to monitoring in real-time, our system can also monitor load trends over time. Understanding how a building performs over time helps facility managers identify opportunities to conserve or shift loads to off-peak hours. Dashboards showing historical and real-time data can also be displayed to educate occupants about their energy usage.

Solar/Wind: EKM's system is also ideal for metering sources of generation such as a solar array or wind turbine. Our system allows you to monitor performance in real-time and determine whether that performance meets expectations. You can also monitor how many kWh are going to, versus from, the grid to see if your solar or wind system is adequately sized.



v.3 Omnimeters

Omnimeter I v.3

- Universal revenue-grade kWh meter
- 120V single phase
- 120/240V single phase
- 120-400V 3-phase 3-wire
- 120-480V 3-phase 4-wire
- 50-60Hz
- Supports CTs from 100 to 5000A
- RS-485 2-wire communications
- Pulse Output



Omnimeter II UL v.3

- Universal revenue-grade kWh meter
- UL and cUL Listed
- 120V single phase
- 120/240V single phase
- 120-240V 3-phase 3-wire
- 120-240V 3-phase 4-wire
- 50-60Hz
- Supports CTs from 100 to 5000A
- RS-485 2-wire communications
- Pulse Output



#	LCD Display Data	#	LCD Display Data	#	LCD Display Data
01	Total kWh (forward +	06	Amps L1	11	Watts L3
02	reverse)	07	Amps L2	12	Watts Total
03	Reverse kWh	08	Amps L3	13	Cosθ L1 (Power Factor)
04	Volts L1 (Line 1)	09	Watts L1	14	Cosθ L2
05	Volts L2	10	Watts L2	15	Cosθ L3

v.4 Omnimeters

Omnimeter Pulse UL v.4

- Universal revenue-grade kWh meter
- UL and cUL Listed
- 120V single phase
- 120/240V single phase
- 120-240V 3-phase 3-wire
- 120-240V 3-phase 4-wire
- 50-60Hz
- Supports CTs from 100 to 5000A
- RS-485 2-wire communications
- Pulse Output
- x3 Pulse counting inputs
- x2 controllable relay outputs



#	LCD Display Data	#	LCD Display Data	#	LCD Display Data
01	Total kWh	15	Cos θ L3	29	Pulse Count 1
02	Reverse kWh	16	T1 kWh (Time of Use 1)	30	Pulse Count 2
03	Volts L1 (Line 1)	17	T2 kWh	31	Pulse Count 3
04	Volts L2	18	T3 kWh	32	kWh on L1 (Line 1)
05	Volts L3	19	T4 kWh	33	Reverse kWh on L1
06	Amps L1	20	Reverse T1 kWh	34	kWh on L2
07	Amps L2	21	Reverse T2 kWh	35	Reverse kWh on L2
08	Amps L3	22	Reverse T3 kWh	36	kWh on L3
09	Watts L1	23	Reverse T4 kWh	37	Reverse kWh on L3
10	Watts L2	24	VARs L1 (Reactive)	38	Total KVARh (Reactive Total kWh)
11	Watts L3	25	VARs L2	39	Resettable kWh
12	Watts Total	26	VARs L3	40	Resettable Reverse kWh
13	Cos θ L1 (Power Factor)	27	VARs Total	41	3 Inputs High/Low
14	Cos θ L2	28	Frequency (Hz)	42	Maximum Demand

Current Transformers

Solid Core - 26.6mA output

- BCT-013-200: 13mm, 200A
- BCT-015-200: 15mm, 200A
- BCT-025-200: 25mm, 200A
- BCT-025-400: 25mm, 400A
- BCT-045-600: 45mm, 600A
- BCT-080-800: 80mm, 800A

Split Core - 26.6mA output

- SCT-013-200: 13mm, 200A
- SCT-023-200: 23mm, 400A
- SCT-032-200: 32mm, 400A
- SCT-065-800: 65mm, 800A
- SCT-100-1500: 100mm, 1500A
- SCT-100-3000: 100mm, 3000A
- SCT-180-5000: 180mm, 5000A



UL Approved Current Transformers			
Part Number	Type	Inside Diameter	Max Amperage
EKM BCT-013-200	Solid Core	13mm	200A
EKM BCT-015-200	Solid Core	15mm	200A
EKM BCT-025-200	Solid Core	25mm	200A
EKM BCT-025-400	Solid Core	25mm	400A
EKM SCT-013-200	Split Core	13mm	200A
EKM SCT-023-400	Split Core	23mm	400A
EKM SCT-032-400	Split Core	32mm	400A

Meter Enclosures

Indoor Enclosure (EKM-IENC)

- All hardware and DIN rail included
- Flush or surface mounting
- Fits one meter inside

Watertight Enclosure (EKM-EENC)

- See-through gasketed cover
- DIN rail included
- Fits one meter inside
- IP65



Water Meters

3/4" Water Meter (SPWM-075)

Stainless Steel Body (304 grade)
Stainless Steel Fittings (201 grade)
3/4" NPT Fittings
Pulse Output
Cubic Feet
One pulse per 1/10 cubic foot

3/4" Hot Water meter (HOT-SPWM-075)

Stainless Steel Body (304 grade)
Stainless Steel Fittings (201 grade)
3/4" NPT Fittings
Maximum Temperature: 194°F(90°C)
Pulse Output
Cubic Feet
One pulse per 1/10 cubic foot

1.0" Water Meter (SPWM-100)

Stainless Steel Body (304 grade)
Stainless Steel Fittings (304 grade)
1.0" NPT Fittings
Pulse Output
Cubic Meters
One pulse for every 0.01m³

1.5" Hot Water meter (SPWM-150)

Stainless Steel Body (304 grade)
Stainless Steel Fittings (304 grade)
1.5" NPT Fittings
Pulse Output
Cubic Meters
One pulse for every 0.01m³

2.0" Water Meter (SPWM-200)

Stainless Steel Body (304 grade)
Stainless Steel Fittings (304 grade)
2.0" NPT Fittings
Pulse Output
Cubic Meters
One pulse for every 0.01m³



Gas Meters

3/4" Gas Meter (PGM-075)

- Diaphragm Type
- Steel Body
- 3/4" NPT Brass Fittings
- Pulse Output
- Cubic Feet
- One pulse per cubic foot



Communications & Data

EKM Push

- Sends Omnimeter data to the cloud
- Cloud database
- Once/minute read rate
- Free data available on the web
- Supported by our Encompass web application
- Supported by our EKM Dash software
- Plug and play



Encompass

- Web application for EKM Push data
- Dashboard display
- Customizable Widgets
- CSV and PDF exports
- Free



iSerial Communication Converter

TCP/IP to RS-485 converter
 Sends data over the internet or LAN
 Some network setup required
 EKM Dash Supported



RS-485 to USB Converter

Direct meter-to-computer connection
 EKM Dash supported



EKM Dash software

Desktop software for Windows, Mac
 OSX, or Linux.
 Reads and stores meter data.
 CSV and email reporting
 Alerts and triggers
 Free trial

EKM Metering v1.3 (licensed to: EKM Metering)

Meters	Readings	Data	Value
10068 Meter #10068 (Push) ->	2014-01-23 22:02:39	Meter Date	2014-01-23 14:02:39
	2014-01-23 22:02:38	Computer Date	2014-01-23 14:00:24
	2014-01-23 22:02:37	Model	EKM-OmniMeter v.3
	2014-01-23 22:02:36	Firmware	19
	2014-01-23 22:02:35	Address	10068
	2014-01-23 22:02:34	Total Kilowatt Hour	48173.7
	2014-01-23 22:02:33	Forward Kilowatt Hour	32810.8
	2014-01-23 22:02:32	Reverse Kilowatt Hour	15362.9
	2014-01-23 22:02:31	Net Kilowatt Hour	17447.9
	2014-01-23 22:02:30	Total Kilowatt Hour T1 (TOU1)	29846.5
	2014-01-23 22:02:29	Total Kilowatt Hour T2 (TOU2)	18327.2
	2014-01-23 22:02:29	Total Kilowatt Hour T3 (TOU3)	0.0
	2014-01-23 22:02:28	Total Kilowatt Hour T4 (TOU4)	0.0
	2014-01-23 22:02:27	Reverse Kilowatt Hour T1	9357.1
	2014-01-23 22:02:26	Reverse Kilowatt Hour T2	6005.8
	2014-01-23 22:02:25	Reverse Kilowatt Hour T3	0.0
	2014-01-23 22:02:24	Reverse Kilowatt Hour T4	0.0
Activity		Voltage1	120.5
10068 3 Successful Meter Reads	2014-01-23 22:02:23	Voltage2	120.5
10068 3 Successful Meter Reads	2014-01-23 22:02:22	Voltage3	0.0
10068 3 Successful Meter Reads	2014-01-23 22:02:21	Current1 (Amps1)	2.0
10068 3 Successful Meter Reads	2014-01-23 22:02:20	Current2 (Amps2)	8.8
0 Report "Sample Report"...	2014-01-23 22:02:19	Current3 (Amps3)	0.0
10068 3 Successful Meter Reads	2014-01-23 22:02:18	Power1 (Watts1)	216
0 Report "Sample Report"...	2014-01-23 22:02:17	Power2 (Watts2)	976
10068 3 Successful Meter Reads	2014-01-23 22:02:16	Power3 (Watts3)	0
10068 3 Successful Meter Reads	2014-01-23 22:02:15	Total Power (Watts)	1192
10068 3 Successful Meter Reads	2014-01-23 22:02:14	Cosθ 1 (Power Factor1)	1.00
10068 3 Successful Meter Reads	2014-01-23 22:02:13	Cosθ 2 (Power Factor2)	0.93
10068 3 Successful Meter Reads	2014-01-23 22:02:12	Cosθ 3 (Power Factor3)	0.00
10068 3 Successful Meter Reads	2014-01-23 22:02:11	Max Demand	10395
10068 3 Successful Meter Reads	2014-01-23 22:02:10	Max Demand Period	15 Minutes
10068 3 Successful Meter Reads	2014-01-23 22:02:09	CT Ratio	200
10068 3 Successful Meter Reads	2014-01-23 22:02:08	Pulse 1 Count	0
10068 3 Successful Meter Reads	2014-01-23 22:02:07	Pulse 1 Ratio	0
10068 3 Successful Meter Reads	2014-01-23 22:02:06	Pulse 2 Count	0
10068 3 Successful Meter Reads	2014-01-23 22:02:05	Pulse 2 Ratio	0

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