



“If you can not measure it,  
you can not improve it.”

-William Thomson, Mathematical Physicist

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**[www.energycloudinc.com](http://www.energycloudinc.com)**



# Mission

**Energy Cloud<sup>®</sup> is a clean-tech company focused on energy efficiency, sustainability and healthy building environments.**

## **Energy Efficiency**

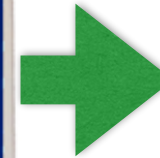
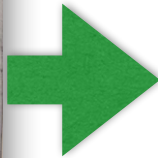
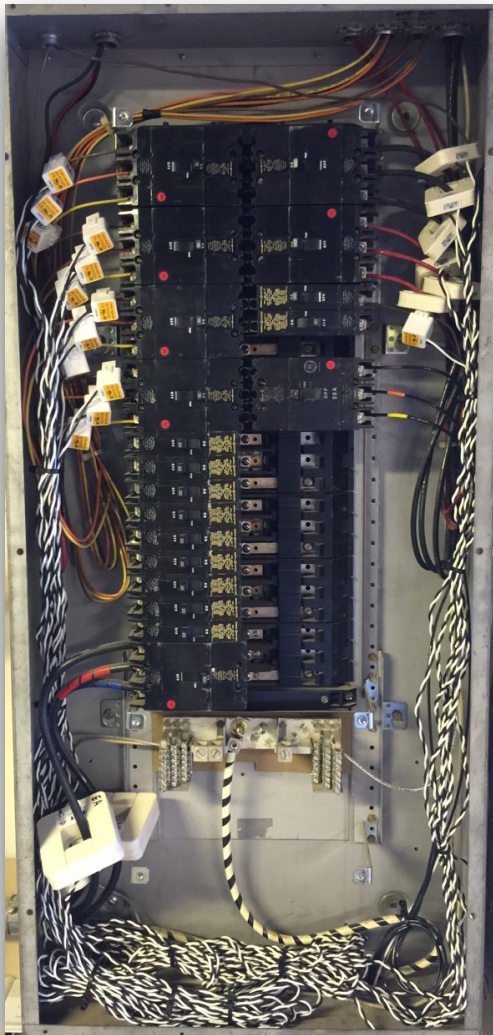
- gMeter<sup>®</sup> Energy Management Platform
- Electric, Water & Gas Measurement
- Real-time EM&V Platform
- Sub-meter, Cost Accounting, Tenant Billing
- HVAC, IAQ & Energy Efficiency Technologies
- Facility Automation
- Sustainability Reporting Automation





# gMETER<sup>®</sup> Energy Management System

The Energy Cloud gMeter<sup>®</sup> Energy Management System measures energy in real-time, sampling in 3-15 second increments directly at the internal panel level on a per circuit basis. This granular measurement capability gives a true picture of what's really going on in a facility. All data is sent securely to Energy Cloud's data center in a cloud infrastructure which allows management to access data from their facilities all over the world, from any computer or smart enabled mobile device.



**Data viewable online**

**gMeter CT's collect data from Panel**

**Data sent wirelessly**

**gMeter sends data to Energy Cloud<sup>®</sup>**



# gMeter<sup>®</sup> Sub-Meter Billing

- Full Tenant Billing
- Internal Cost Accounting
- Adaptable to any Utility Jurisdiction
- Convert Engineering units into dollars & cents

## Electrical

## Water

## Gas

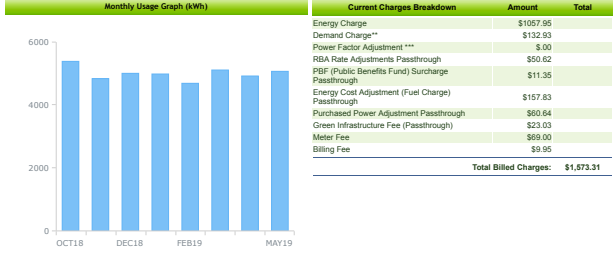
**Landlord**  
Hotel / Resort  
100 Resort Circle  
Honolulu HI 96815

**Tenant**  
Large Wireless Co.  
P.O. Box 100000  
Site Name: HI444555 HQ  
City State Zipcode

**gMETER<sup>®</sup> Electric Bill**  
Account #: T125143-E-1  
Invoice Number: 1905-E-87200  
Invoice Date: 2019-06-01  
Billing Period: 05/01/19 - 05/31/19

Electric Service (Bill Period: 05/01/19 - 05/31/19)

Meter #	Meter Location / Note:	Register	Current Reading	Previous Reading	Difference	Multiplier	Total (kWh)
CR241804115	Telecomm Data Rm Meter Combination	kWh	30,958.14	34,896.17	5,061.96	1.00	5,061.96
							<b>Total All Meters: 5,061.96</b>



**Account Notes:**  
All passthrough kWh based rates are equal to the same rate Landlord pays to HELCO. \*\* Demand Charge Billed Passthrough (KW Demand of highest Peak of last 11 months, or this month if higher x \$20.45 / kW) \*\*\* Power Factor Adjustment: There is no power factor fee being charged to customer. \* Customer Charge & Green Infrastructure fee passthrough based on 3 Phase / >5MVA/imo. Schedule J. / Hawaii PUC approved rate schedule. Rates subject to change based on HELCO rate schedule and HELCO ultimate approval. Statement provided by Energy Cloud Inc., 1001 Bishop St. Ste 2685A, Honolulu HI 96813-3404

**Invoice Notes:**

Remit Payment to:  
Resort 100  
100 Resort Circle  
Honolulu, HI 96815

Customer:  Telecomm Wireless  
Account #:  T125143-E-1  
Invoice Number:  1905-E-87200  
Due Date:  2019-07-01  
Balance Due for Invoice:  \$1,573.31

Total Amount Enclosed:

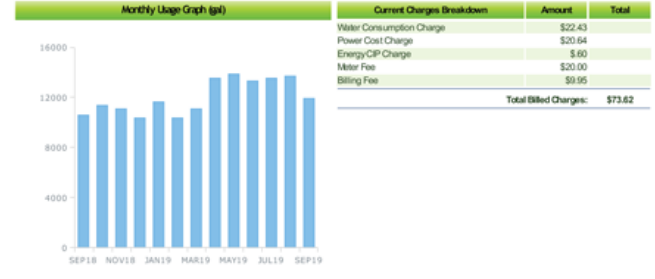
**Landlord**  
[Redacted]

**Tenant**  
[Redacted]

**gMETER<sup>®</sup> Water Bill**  
Account #: T125143-W-1  
Invoice Number: 1909-W-1001  
Invoice Date: 2019-10-01  
Billing Period: 09/01/19 - 09/30/19

Water Service (Bill Period: 09/01/19 - 09/30/19)

Meter #	Meter Location / Note:	Register	Current Reading	Previous Reading	Difference	Multiplier	Total (gal)
17567	[Redacted]	gal	307,228.00	295,296.00	11,932.00	1.00	11,932.00
							<b>Total All Meters: 11,932.00</b>



**Account Notes:**  
Statement provided by Energy Cloud Inc. [Redacted] Rates subject to change based on rates charged to Landlord by the water utilities. In the event the meter cannot be read for a particular reading, daily averages will be used from the most recent months.

**Invoice Notes:**

Remit Payment to:  
[Redacted]

Customer:  [Redacted]  
Account #:  T125143-W-1  
Invoice Number:  1909-W-1001  
Due Date:  2019-10-31  
Balance Due for Invoice:  \$73.62

Total Amount Enclosed:

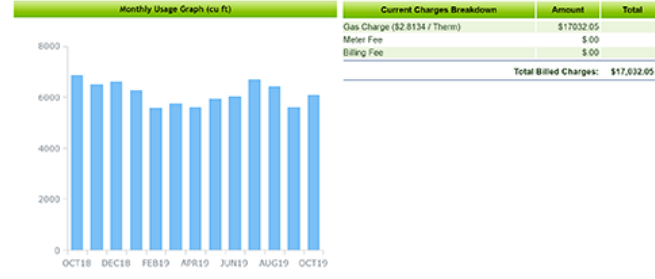
**Landlord**  
Hospitality Resort

**Tenant**  
Customer Laundry

**gMETER<sup>®</sup> Gas Bill**  
Account #: T125900-G-1  
Invoice Number: 1910-G-98190  
Invoice Date: 11/01/2019  
Billing Period: 10/01/19 - 10/31/19

Gas Service (Bill Period: 10/01/19 - 10/31/19)

Meter #	Meter Location / Note:	Register	Current Reading	Previous Reading	Difference	Multiplier	Total (therms)
154970	Laundry Gas	cu ft	1,551,810.00	1,493,431.00	58,379.00	10.00	6,053.90
							<b>Total All Meters: 6,053.90</b>



**Account Notes:**  
This bill is for internal accounting use.

**Invoice Notes:**

Remit Payment to:  
[Redacted]

Customer:  Customer Laundry  
Account #:  T125900-G-1  
Invoice Number:  1910-G-98190  
Due Date:  12/01/2019  
Balance Due for Invoice:  \$17,032.05

Total Amount Enclosed:



# The Ultimate Commercial HVAC Management & Air Purification System



## hummingbird™ EQ

### HVAC in Perfect Balance™

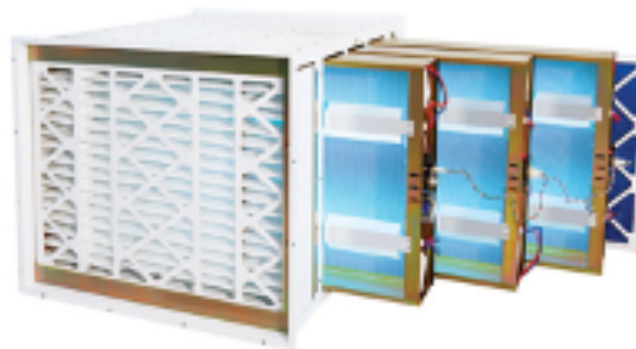
# hummingbird™ EQ



#### INDOOR AIR QUALITY



#### AIR PURIFICATION



#### HVAC MANAGEMENT



Patent Pending

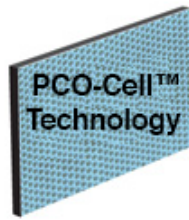
©2012-2020 Energy Cloud Inc.



VOCs



Harmful/ Dangerous



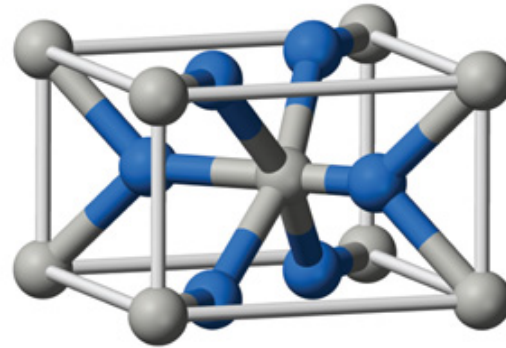
Harmless/ Safe

# hummingbird™ EQ

## Photocatalytic Oxidation



+



● Titanium atoms  
● Oxygen atoms

Titanium Dioxide (TiO<sub>2</sub>)

=

# Photocatalytic Oxidation

Deactivates

**Biologicals**

- Bacteria
- Viruses
- Fungi
- Mold

Eliminates

**VOCs**

- Paint
- Pesticides
- Chemicals
- Solvents

Reduces

**Odors**

- Smoke
- Garbage
- Kitchens
- Bathrooms



hummingbird™ EQ

**Known to already kill viruses such as SARS-CoV, an envelope virus similar to COVID-19.**

**Working with U. of Tennessee Health & Science Center to prove that it will also kill COVID-19.**



hummingbird™ EQ

# hummingbird™ EQ

## Air Purification

Mold  
Bacteria  
Dust  
Dander  
Pollen  
Germs  
VOCs  
Odors  
Smoke

### 3 stage PCO-Cell™ Purification

Fresh,  
Clean,  
Pure Air

- 1 High Efficiency Filter**
  - MERV 13 high efficiency 4" pleated pre-filter
  - Traps particles as small as .3 micron including mold, bacteria, dust, dander, and pollen
- 2 UVC Germicidal Lamps**
  - Two high output UVC germicidal lamps per module
  - Three ultraviolet germicidal treatment zones are standard
  - Neutralizes airborne microbes such as bacteria, viruses, mold, and fungi
  - UVC magnifies PRO-Cell™ performance up to 200%
- 3 PCO-Cell™**
  - Patented PCO-Cell™ panels that clear the air of smoke, odors, and VOCs
  - Transforms odors, smoke, and volatile organic compounds (VOCs) into harmless, odorless water vapor and carbon dioxide
  - Maintenance free PCO-Cell™ core
- 4 Potassium Permanganate Filter**

Optional  
Carbon Filter



# hummingbird™ EQ

## Scalability

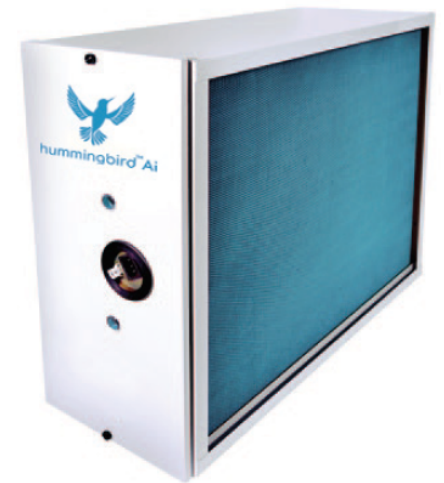
### Custom bundled configurations

Hummingbird™ can scale to any size HVAC. A hummingbird AP30000 is capable of total air purification up to six tons and AP10000 is capable of 5 tons. AP's can be stacked together to handle larger capacities.

**AP30000**  
Triple PCO Chamber unit

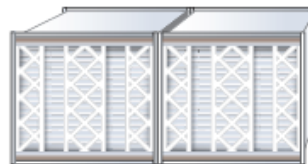


**AP10000**  
Single PCO Chamber unit

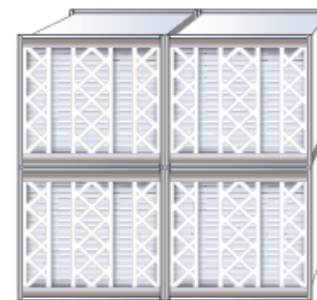


*Two units were bundled to purify the air in this IVF lab in Chapel Hill, NC.*

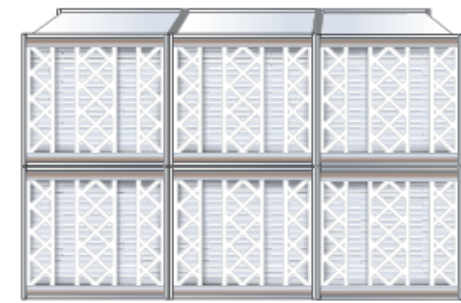
### Bundled Configuration Examples



Two  
10 Ton



Four  
20 Ton



Six  
30 Ton





# hummingbird™ EQ

## Indoor Air Quality Monitoring





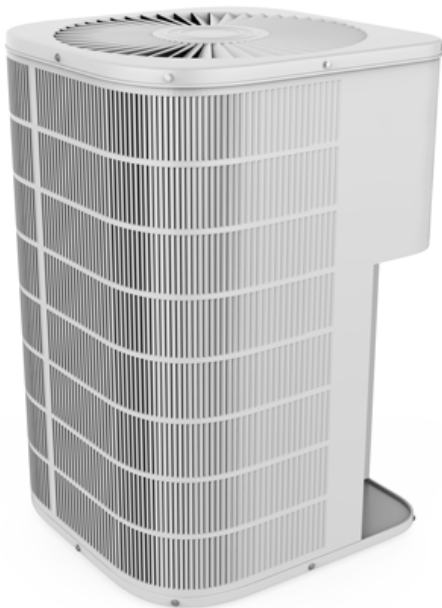
ENERGY CLOUD

# hummingbird™ Ai



hummingbird™ Ai

**Hummingbird™ Ai** is a complete HVAC live monitoring system that keeps your air conditioning unit ‘humming’ with optimum efficiency. The system measures and monitors all of the HVAC unit’s vitals including temperatures, humidity, air flow and refrigerant charge. **Hummingbird™ Ai** then continually checks the HVAC system with this data to make sure it’s running efficiently and alerts the customer and customer’s HVAC contractor with text or email alerts when a system is failing to run properly. This helps the customer save energy, money, and extend the unit to its full useful life by making sure it’s running to its proper manufacturer specifications.



hummingbird™ Ai Model				Sensor	Type	Unit
Charge & Air Pro	Charge Pro	Pro	Light	Filter Replacement Detection	Air Flow	Yes / No
				Ambient Air Temperature	Temperature	°F or °C
				Return Air Temperature	Temperature	°F or °C
				Return Air Humidity	Humidity	RH%
				Return Air Wetbulb Temperature	Temperature	°F or °C
				Supply Air Temperature	Temperature	°F or °C
				Supply Air Humidity	Humidity	RH%
				Refrigerant Liquid Line Temperature	Temperature	°F or °C
				Refrigerant Suction Line Temperature	Temperature	°F or °C
				Refrigerant Liquid Line Pressure	Static Pressure	WC" & psi
			Refrigerant Suction Line Pressure	Static Pressure	WC" & psi	
			Air Flow Total Static Pressure	Static Pressure	WC" & psi	



ENERGY CLOUD

## DATA CENTER



### Data Center:

- True 2N+1 Power Redundancy
- Bio-Security
- Kevlar Infused walls
- Bullet Proof Glass
- Man-Trap requires Live person access
- Strong encryption (Third Party Rated)
- Maintain our own cloud servers

# SECURITY

Qualys. SSL Labs

Home Projects Qualys Free Trial Contact

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > [www.energycloudinc.com](#)

**SSL Report: www.energycloudinc.com (69.43.164.30)**

Assessed on: Mon, 13 Jul 2020 20:31:01 UTC | [HIDDEN](#) | [Clear cache](#) [Scan Another](#)

### Summary

Overall Rating

**A**

Certificate	100
Protocol Support	100
Key Exchange	90
Cipher Strength	90

Visit our [documentation page](#) for more information, configuration guides, and books. Known issues are documented [here](#).

### Certificate #1: RSA 2048 bits (SHA256withRSA)

**Server Key and Certificate #1**

Subject	www.energycloudinc.com Fingerprint SHA256: e62898894f964aaa1225117d40f368e1b76c642cc0727623f01ba208d9d8ff Pin SHA256: K0KYd7WN263q8Mu60h2KZATGPc1Tz0QnxfVzJW9dAk*
Common names	www.energycloudinc.com
Alternative names	www.energycloudinc.com greennet.com www.greennet.com gmeter.greennet.com registry.greennet.com mail.greennet.com permit.greennet.com utilibase.greennet.com energycloudinc.com
Serial Number	085acc44b151771e662431adea37d5a1
Valid from	Thu, 07 Nov 2019 00:00:00 UTC
Valid until	Tue, 16 Feb 2021 12:00:00 UTC (expires in 7 months and 2 days)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	DigiCert SHA2 Extended Validation Server CA AIA: http://cacerts.digicert.com/DigiCertSHA2ExtendedValidationServerCA.crt
Signature algorithm	SHA256withRSA
Extended Validation	Yes
Certificate Transparency	Yes (certificate)
OCSP Must Staple	No
Revocation information	CRL, OCSP CRL: http://crl3.digicert.com/sha2-ev-server-g2.crl OCSP: http://ocsp.digicert.com
Revocation status	Good (not revoked)
DNS CAA	No ( <a href="#">more info</a> )
Trusted	Yes Mozilla Apple Android Java Windows

**Additional Certificates (if supplied)**

Certificates provided	2 (3239 bytes)
Chain issues	None