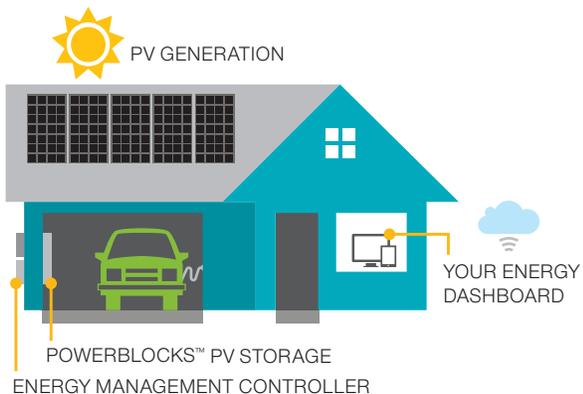




# New Energy

HAWAII **ENERGY** CONNECTION®  
sustainable energy solutions

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**HAWAII ENERGY CONNECTION** is a locally owned company and nationally recognized solar integrator that is fueled by a passion to accelerate the adoption of renewable energy in Hawaii, and dedicated to providing affordable energy solutions. We'll work with you to design a customized KumuKit™ system that's ideal for your home and budget. Our systems are right-sized to achieve peak energy production, maximize available incentives, and ultimately shrink your electric bill. You'll be surprised how affordable solar can be. Get connected.

# A New Way to Save With Solar

## **NEXT GENERATION KUMUKIT™**

Designed in Hawaii for Hawaii, these hybrid packages include whole home energy management control and monitoring with optional advanced energy storage. We can't be more proud of our achievements thus far, with over 8,000 satisfied KumuKit™ customers each saving hundreds of dollars on

energy bills every month while also serving as the base of Hawaii's 100% renewable energy future. Hybrid systems empower you with energy security, self-sufficiency, offset your electric bill at retail rates, lock in your future cost of electricity, control when you use your solar power and provide critical power supply when others have lost grid power.

These hybrid solar electricity packages allow you to take advantage of the latest utility interconnection and saving programs. There's a reason KumuKit™ continues to be Hawaii's Best Choice.

**kumukit**<sup>™</sup>  
Solar Electricity

Don't buy  
more PV  
than you need or  
waste  
the power  
you generate





## PROFESSIONAL INSTALLATION

KumuKit™ installers are qualified professionals. You can expect great attention to detail, quality craftsmanship and respect for you and your home.



We build quality into every KumuKit™ with top-tier PV panels, superior micro-inverter technology, professional roof flashings, and innovative energy management—all installed by our qualified installation crews. With our Done Right Guarantee, worry-free warranties, web-based system monitoring and dedicated local service and support, you'll be assured you chose wisely.

### TOP-TIER PANELS

We suggest our maximum efficiency LG® NeON™ panels. When combined with micro-inverters, these premium panels offer one of the highest AC electricity production per square foot in the industry. LG® offers a 25 year power warranty.



### SUPERIOR MICRO-INVERTERS

Micro-inverters are superior to central inverters, harvesting up to 16% more AC electricity. With micro-inverters, if a solar panel or inverter fails, the system continues to perform; with central inverters, the entire system stops working.





# Best Assured With Support

## DEDICATED SERVICE + SUPPORT

We have dedicated service technicians on call for dispatch to your home in the event of a system problem. Technical support is also available to ensure your system's advanced monitoring operates smoothly.



## SYSTEM MONITORING

System visibility is achieved through secure cloud-based tools with an intuitive Energy Dashboard interface. You can track your system's performance on an hourly, weekly or monthly basis. Real-time monitoring instantly exposes any problem with your system. You'll be able to view your solar array(s), production and usage summaries, and see how you are reducing your carbon footprint.



# Future-Proof Your PV System



## OUR EMC IS KEY

A big advancement. A small addition. A huge difference. KumuKit™ Smart Energy Management leverages your PV system's production through energy optimization and usage. Our *exclusive* Energy Management Controller (EMC) is a major advancement in Smart Energy

Management, and is included with every KumuKit™. In addition to providing benefits now, such as load monitoring and control, the EMC has the technology and intelligence *built-in* to meet ever-changing Utility policy in the future. The EMC essentially future-proofs your PV system. It will analyze your power usage and

requirements from the start, so that you can make an informed decision if you choose to add batteries later. You'll have strategic access to Utility incentive programs that allow you to save even more on your electric bill.



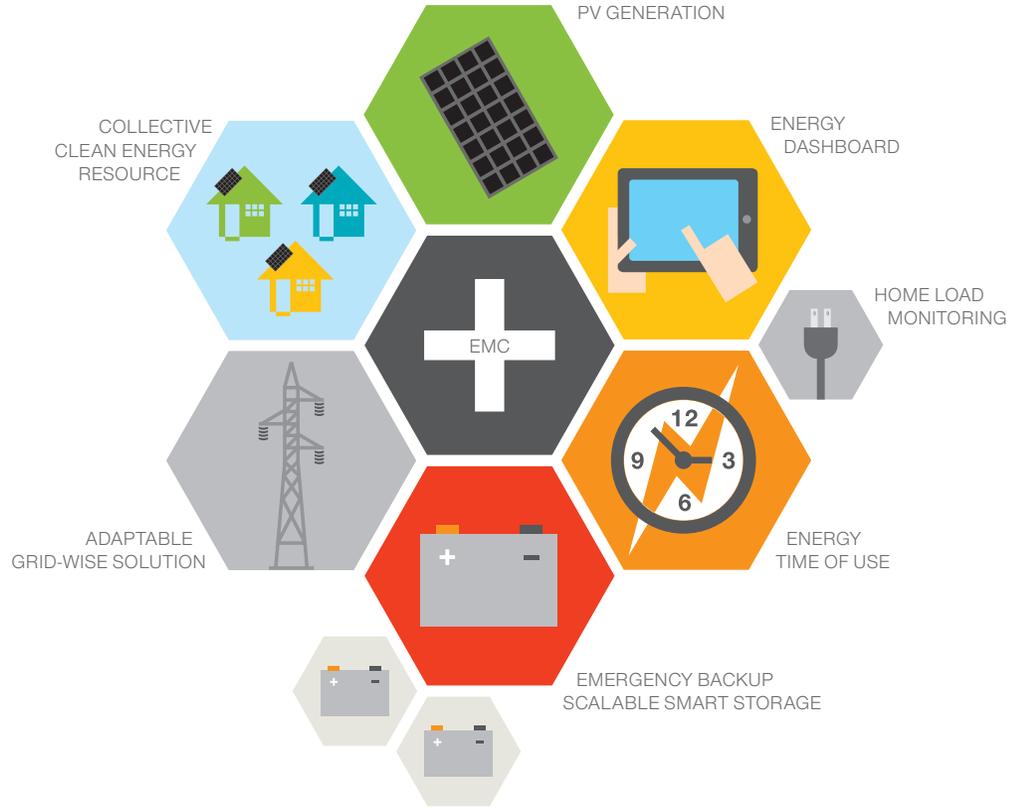


## ENERGY MANAGEMENT CONTROLLER

Smart energy management that does it all—optimizing PV energy production, usage and export. Easy and secure web-based user tools provide monitoring and intelligent system control.

## STRATEGIC ACCESS:

- Grid Services
- Demand Response (DR)
- Time-of-Use (TOU)
- Smart Export
- Future Utility Programs



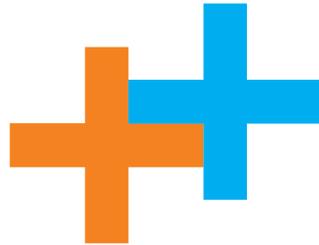
# DR



DR aggregators manage collective energy transactions.



# Edge-of-grid intelligent real- time adaptive control



## **DEMAND RESPONSE**

Utilities are looking to Demand Response (DR) as a way to manage modern grid energy exchanges. DR programs take collective small actions to reduce energy use when electricity demand outweighs supply or grid emergencies occur. Utility DR programs will pay monthly incentives or give reduced rates

to customers that install grid-helping technologies. To qualify you'll need an energy management solution that can automate complex energy usage and grid interaction in the background.

With sophisticated EMC technology onboard, KumuKit™ systems with energy storage are ready to participate without any additional equipment need-

ed. Our customers can opt-in to these new incentive programs as they become available and reduce energy costs, conserve energy, and help keep Hawaii's grid reliable. Be aware that not all companies and systems are capable of offering these new programs and some 3rd party leasing companies even have restrictions that prevent you from participating directly.



# Save the Day Power the Night

## Smart Home Energy Storage

A breakthrough in distributed energy resource management—our Powerblocks™ smart storage system enhances a PV system's abilities and allows you to store your own PV energy. The modular design allows for easy upgrade and incremental expansion. Powerblocks™ let you use solar electricity at night, take advantage of utility time-of-use rates, partic-

ipate in grid services, smart export, and demand response programs. The automatic emergency backup power feature provides for critical loads in your home during grid outages. Powerblocks™ can also adapt to future utility requirements, address changing home and grid conditions, maximize production and optimize overall energy efficiency. An intuitive Energy Dashboard interface makes it

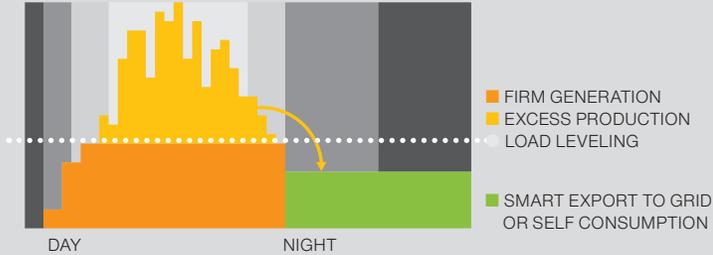
easy to manage select home loads with detailed visibility and historical reporting capability. You can shift time-of-use costs to your best advantage, see where energy is being consumed, set electricity reduction and savings goals, and monitor your progress.





Store the solar power you generate every day and use it every night—offsetting peak energy rates.

## SMOOTHING PV ENERGY



## You've Got the Power.

Take charge of the solar power you generate. Make your home a powerhouse with a PV system and Powerblocks,™ designed to be simple, intelligent, adaptive, interconnected, monitored, controlled, and grid-wise.

 US LISTED





### **Keep the Power Flowing. Keep your Family Going.**

Power outages from tropical storms and grid failure are inevitable. With Powerblocks™, you won't have to suffer through them again. Powerblocks™ operates silently in the background, providing immediate backup power to lighting, medical equipment, refrigerators, phone chargers, or other critical items that are important to your family in times of emergency.



All the tools to monitor and manage your PV System in one place.

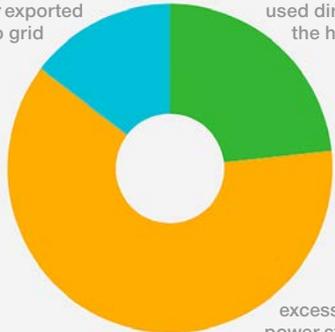


POWERCIRCLE (PV GENERATION) ⚙️

Past 7 days ▾

excess solar power exported to grid

solar power used directly in the home



excess solar power stored in batteries



### YOUR ENERGY DASHBOARD

Simple cloud-based energy management. Compare your energy production with your energy usage. Easily reconcile your electric bill. Optimize consumption of the solar energy you produce. Take advantage of the best times to use power from the grid. Monitor loads in your home. Identify electricity hogs. Control battery usage. Manage critical loads on emergency backup. It's your power, your way.

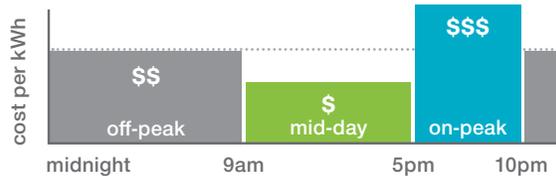
# Your Power Your Way



### Powerblocks™ Ready Advantage

Powerblocks™ provide strategic access to Grid Services. Take advantage of Utility value pricing programs like Time-of-Use (TOU), participate in current and future Demand Response (DR) programs, get credit for energy you Smart Export to the grid and save even more on your electric bill.

TIME OF USE RATES



# Really Cool Hot Water

Solar water heating systems have been around for decades, but this system is better. Our hybrid solar water heating system uses advanced PV micro-grid technology, as well as utility power and conventional tank-style storage to reduce energy costs and save the average family hundreds of dollars a year.

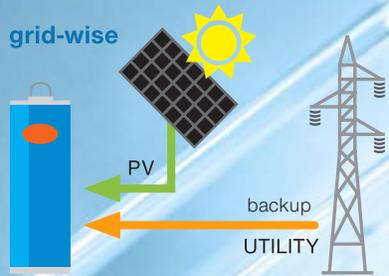
The cost of KumuKit™ hybrid solar water heating systems is comparable to traditional solar water heating systems,

but are cleaner, more reliable, and virtually worry-free. No pumps required! It's a grid-wise solar hybrid system that harnesses energy using PV, transfers power to a micro-grid to heat water in a specially designed tank, and uses utility power only as a system back-up. If the utility suffers an outage, the KumuKit™ will continue to heat your water! The KumuKit™ will switch to the utility only if you run low on hot water.

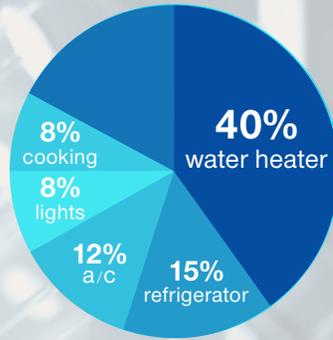


## **SIMPLE, INEXPENSIVE, EFFECTIVE**

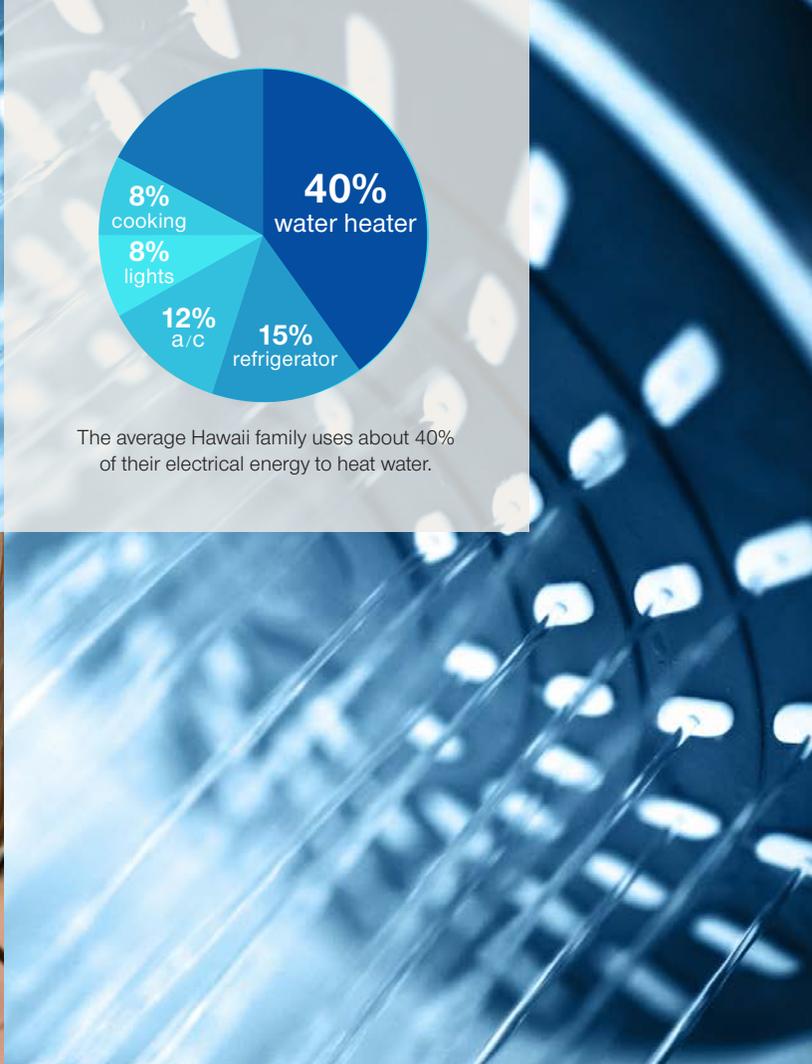
One of the easiest and best ways to cut your family's utility bill is to replace your dated conventional water heater with a KumuKit™ hybrid solar water heating system. With combined state and federal tax credits, the KumuKit™ hybrid solar water heating system is a very affordable way to get started with PV today.  
data source: eia.gov

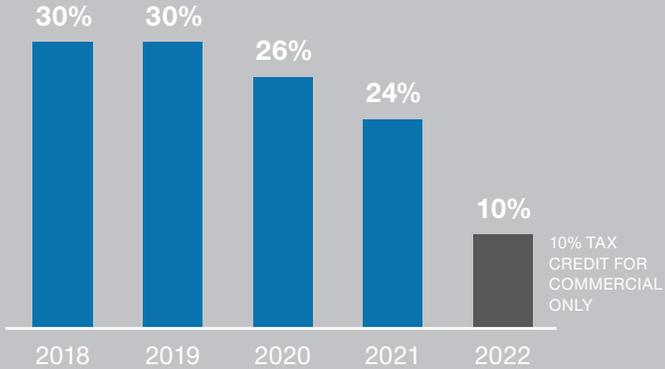
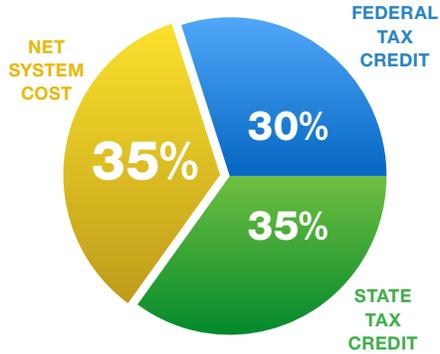


KumuKit™ solar-hybrid water heating system



The average Hawaii family uses about 40% of their electrical energy to heat water.





FEDERAL TAX CREDIT FOR HOMEOWNERS ENDS 2022

# Save

thousands of dollars  
on your electric bill  
over the lifetime of  
your system.

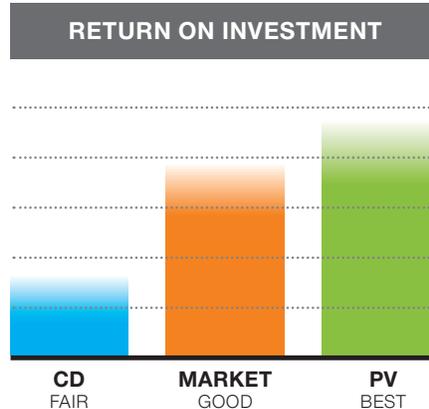


## GOTTA GET A KUMUKIT™

# Save a Bundle on Energy Costs

### Generous Tax Credits Still Available

As long as you own your solar energy system, you are eligible for the solar tax credit. If you don't have enough tax liability to claim the entire credit in one year, you can roll over the remaining credits into future years for as long as the tax credit is in effect. Federal tax credits for residential solar will start to decrease in 2020. No expiration date is set for State tax credits.



### Solar is a Great Investment

Enjoy a lifetime return on your investment. Solar consistently outperforms all other conventional investments. KumuKit™ systems still typically have the strongest return on investment in the industry.

# Lease vs Own



When you OWN your system you get the tax credits, all the energy savings produced, and add value to your home.

## OWNING IS BETTER THAN LEASING

If you're considering a solar lease/PPA for your home, think again. Sure, you'll reduce your electric bill a little, but the leasing company benefits most. Contract terms can "lock-in" tens of thousands in monthly payments over 20 years and complicate refinance or even sale of your home. Lost tax credits, annual increases, prepayment penalties and system buyout will cost thousands more. When you own solar, you reap many more financial benefits.

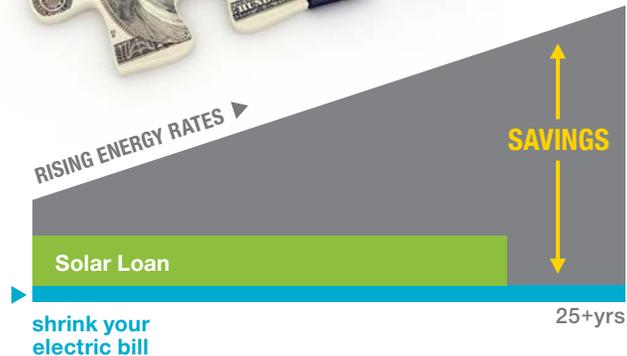


# Easy Financing



## EASY TO OWN

Every month, you pay an electric bill that is tied to rising energy costs. With a KumuKit™ system and our easy financing options, you'll shrink your electric bill immediately and generate enough savings to cover your loan payment! Part of what was once a monthly expense will instead contribute to a valuable asset. As utility rates increase, so will your savings and return, actually saving you more with each passing year!





Solar Electricity



Get our no-pressure, no-obligation written quote.  
You'll be surprised how affordable solar can be. Get connected.  
Join Hawaii's clean-energy KumuHui.



[kumukit.com](http://kumukit.com) 808-524-7336



HAWAII ENERGY CONNECTION®  
sustainable energy solutions

LOCALLY OWNED. NATIONALLY RECOGNIZED

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