



**Smart G4 Restaurant & Shop Energy Control Solutions**  
Monitoring - Analyzing - Controlling - Saving - Visualizing



# Identifying energy vampires

Smart G4 Helps Restaurant Owner identify energy consumption of every element inside the restaurant

**Using Our Ct24 clamp meter** gives the unique following abilities and features:

- 1- Lighting Fixtures Consumption & Number of burned fixtures to replace
- 2- Air-conditioning consumption & Recommended Maintenance
- 3- Kitchen Appliances Consumption monitoring for fridges, glass washers, ovens, dishwashers and drinks coolers..
- 4- Kitchen Exhaust Consumption Monitoring & Maintenance reminders
- 5- Restaurant area plugs
- 6- Signage Board Consumption
- 7- Water Boilers Consumption monitoring
- 8- Pumps Consumption
- 9- Menu Displays and other Displays Consumption monitoring and other



## Ct24 The Energy Audit Advise

Energy Audit will help us design the accurate solution that will help Restaurant Owner to save energy. Saving energy recommendation include:

- a- Considering LED lighting
- b- Considering Smart Thermostat with Comfort Range limits
- c- Considering Adding Fans to move stagnant Air instead of consuming cooling power
- d- Scheduling to operate units with better efficiency of usage need
- e- Consider to reduce infiltration
- f- Consider energy saving Kitchen Hoods
- g- Study Canopies and Insulation
- h- Control appliances that can be turned off without damage
- l- Consider Fresh Air Screens and filtration with Simple Desert Chilling
- j- Air Curtains
- K- Teaming up and education to help conserve and save



# BUDGETING ENERGY

## How Can Restaurants and Shops Improve Energy Efficiency?

Every restaurant, no matter what the size, benefits by taking steps to improve energy efficiency. Not only does it help save hard-earned money, but it contributes to sustainable environmental practices. Understanding how to optimize efficiency and maintain lower energy costs is easier than you might think with these simple tips.

**Food Preparation** - Cutting idle time on kitchen equipment is one of the best ways to conserve energy. It's a good idea to encourage staff to shut off unneeded equipment. Turning off a single, unused commercial fryer for just four hours a day can save up to \$350 a year. Keeping equipment clean, changing filters regularly, and taking care of repairs in a timely manner are all simple ways to save on energy costs.

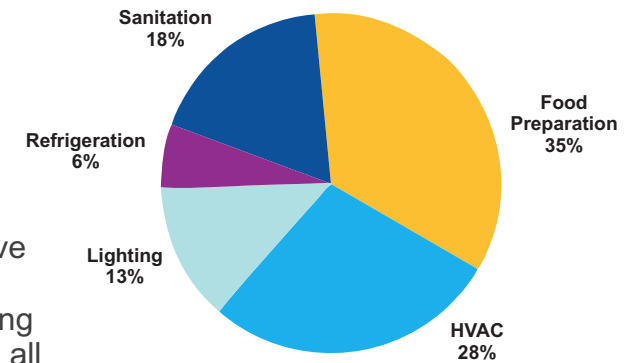
**HVAC** - Heating or cooling your restaurant is a necessary expense but there are several things that can be done to reign in high costs. Install a programmable thermostat for hands-on control and make sure your system gets an annual inspection and tune-up. Check and replace filters often. The proper ventilating fans for ceilings and bathrooms can also make a huge difference.

**Sanitation** - Reducing water consumption in a restaurant depends largely on vigilance and the right components. Consider installing low-flow aerators on hand-washing sinks and replacing spray valves with lower GPM (gallons per minute) ratings. Leaks are the biggest culprits of water waste and energy with a single water leak capable of costing restaurants hundreds of dollars a year.

**Lighting** - One of the most important things you can do to save on utility costs is to switch out incandescent light bulbs with energy-efficient LED bulbs or compact fluorescent lamps (CFL). LED bulbs last up to ten times longer than a standard bulb while helping the environment by lowering greenhouse emissions. Another inexpensive way to save on lighting is to make use of dimmers and occupancy sensors for better control and less waste.

**Refrigeration** - Walk-in coolers and freezers are some of the hardest working pieces of equipment in the foodservice industry. You can avoid wasting a whole lot of electricity by installing an on-demand defrost controller to your walk-in's evaporator coils. On-demand defrost controllers, like RDT's Eco-Smart Controller, only defrost the evaporator coil when needed instead of over-working on a wasteful time clock. Savvy and environmentally responsible restaurant owners should consider RDT's Eco-Cool Series. It does the job of several compressors by offering precise control and reducing overall electrical consumption.

Our Experience illustrated Energy Consumption as per the following Chart in a Full Service Restaurants

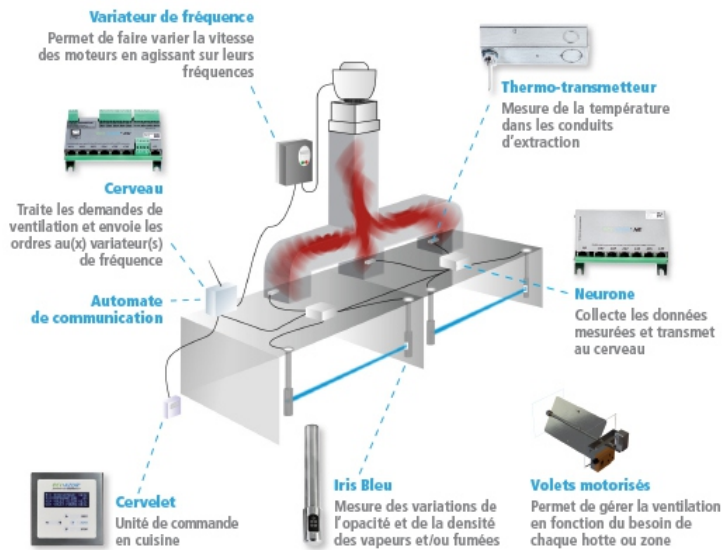






# Turning Kitchen Into Smart Energy Saving Hood Function

# 30%

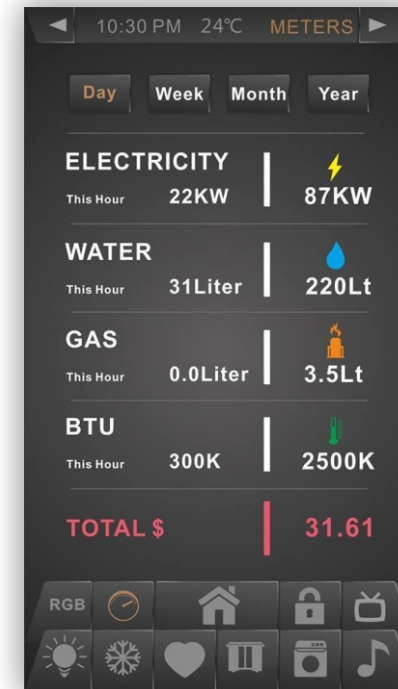


Air Flow Speed Increases Based on Heat, Density and Steam ++

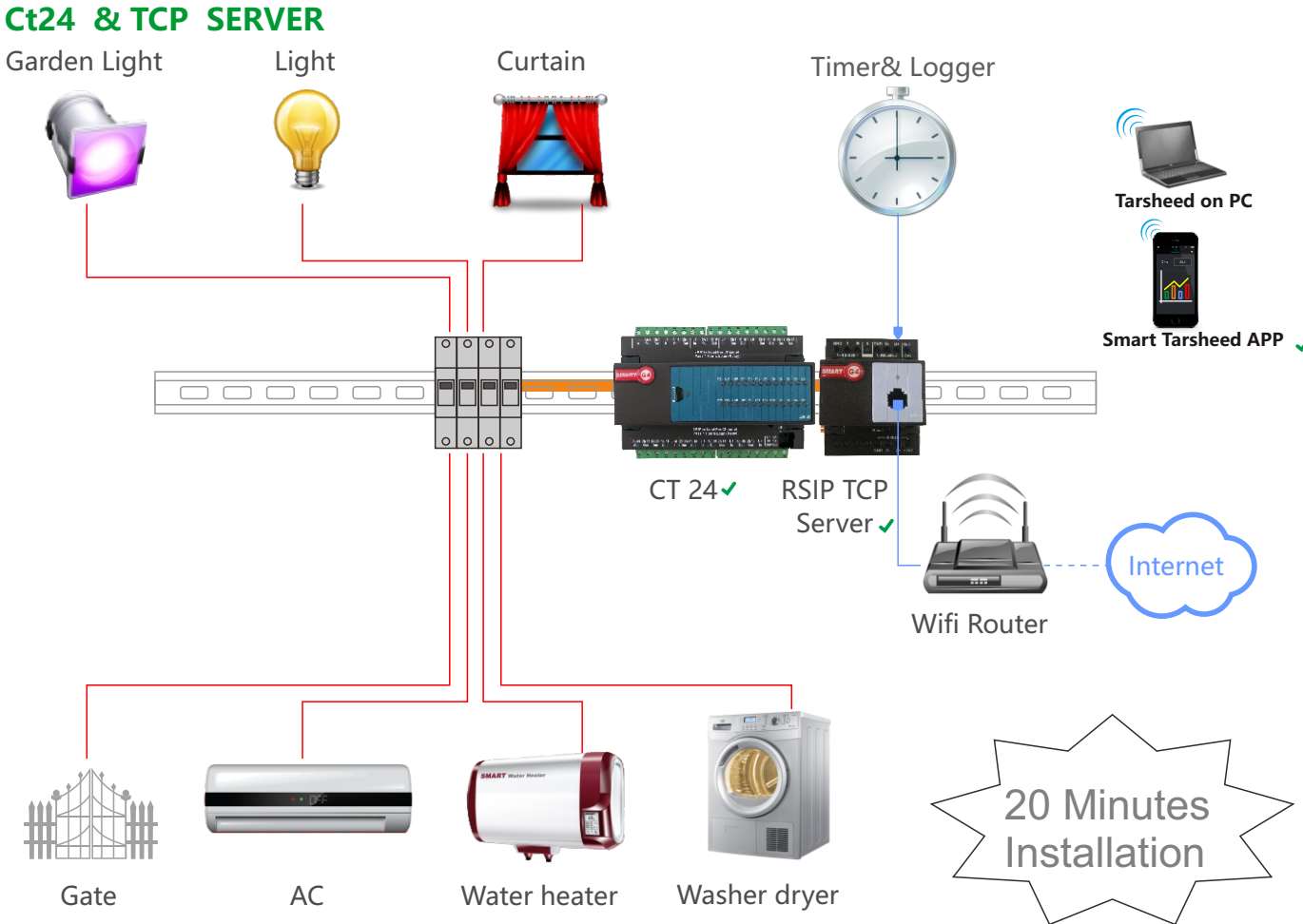
The system's processor analyzes and safely adjusts both fan speeds and modulating dampers to maintain optimal air quality—with airflow rates going as low as 30%.

# SMART G4 Solution

- 1- Clamp Metering Monitors and Logging
- 2- HVAC Controllers with Comfort range
- 3- Lighting and Appliances operation Controller
- 4- Schedulers
- 5- Multi Temperature sensors outdoor and indoor
- 6- Logic Controller
- 7- SMS Alerter
- 8- Energy Consumption Level Display
- 9- Smart Hand Application and Local Usage Reporting
- 10- Central Control Room Sync Server and Reporting



# Stop Wastage Motion



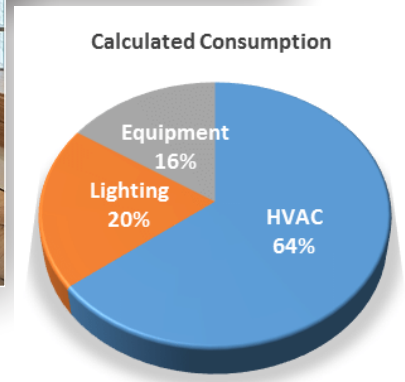
- ✓ Tarsheed Alerts on Wastage
- ✓ Wastage Operation of AC and Boilers + lights ++ During School Time
- ✓ Wastage in Areas and Devices not Needed While Sleeping
- ✓ Wastage During Visits and Vacations ++
- ✓ AC Not Behaving Normal



# Protect and Stop Wastage Motion

- Set limits (Daily, Weekly, Monthly) Per Room, Per Device & Get Alerted + Auto Power cut off (Automatic Watch Dog and Awareness Enhancement)
- Get Warning About Air Conditioner Filter cleaning Schedule (Better Health Enhancement)
- Get Alert If your AC Type is Not Energy Efficient with Advises (Better Investment Analysis)
- Detailed Consumption Graphics Per Room Area (Build Self Knowledge on Power Management)
  - Lights
  - Water Heaters (Boiler)
  - Air Conditioning
  - Appliances
  - Other
- Get Alerted if Your Air conditioner Require Maintenance for Belts, or Other (Better Efficiency)
- Get Alert if Light Bulb Burn with Qty of Burned Fixtures Per Room/Area (Quality Building)
- Control all Devices on/off From your mobile over Wifi and Internet, 3G,4G (Flexibility)
- Schedule & Create own (scenes/scenario) per season (Adaptivity)
- Reporting on Full year log (Information)
- **Save Keep Storages, Get Alert if Temperature or Humidity Reach Critical Levels**
- **Monitor and Receive Alerts If Electricity is Cut or one of the Phases is not working.**
- **Monitor Phases Consumption to Balance the flow to save power by tuning.**
- Expandable system (Future ability)





## Shops Energy Saving is Easier

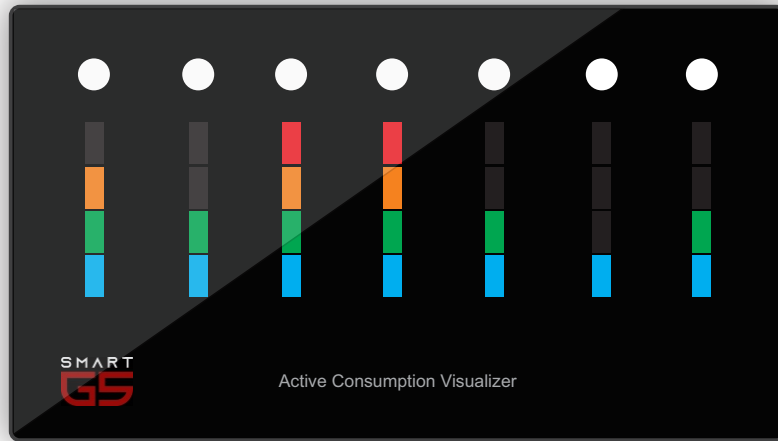
We shall study customer activities, and operating hours, Location and Ambient temperature Comfort Level then impalement energy saving using that all using our Smart Logic2

Main Consumption will be by HVAC , Then Lighting and Appliances.

We shall Schedule Signage Boards, and Show Cases based on Maximum traffic times, energy saving without compromising any market image value.







## Local Visualization and Global Central Control Room



# Why Use Our Energy Saving and Smart Controls?

**Easy Installation**  
**Stabile System**  
**Affordable,**  
**Scalable**

You can Start with us as Modular  
Air conditioning then  
Lighting Then  
Occupancy then  
Central Monitoring  
Temperature and Humidity Level Alerts  
Electricity Cut Alerts  
Then Improvements and Add ons like:  
Water Consumption  
GAS Consumption  
BTU Consumption  
Diesel and Fuel Consumption  
and More

**System is Expandable, Scalable, Limitlessly,**  
**Both Wired and Wirelessly**







CUTTING EDGE

ELEGANT

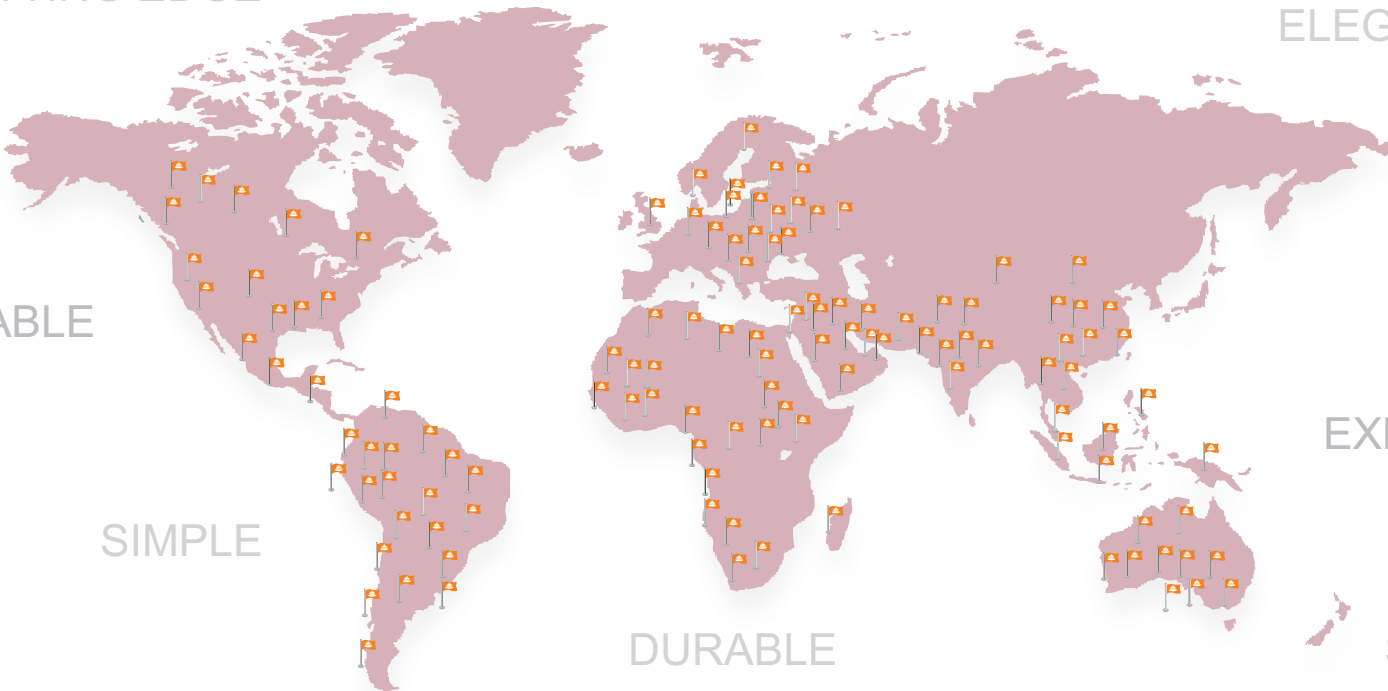
AFFORDABLE

EXPANDABLE

SIMPLE

DURABLE

SMART



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