

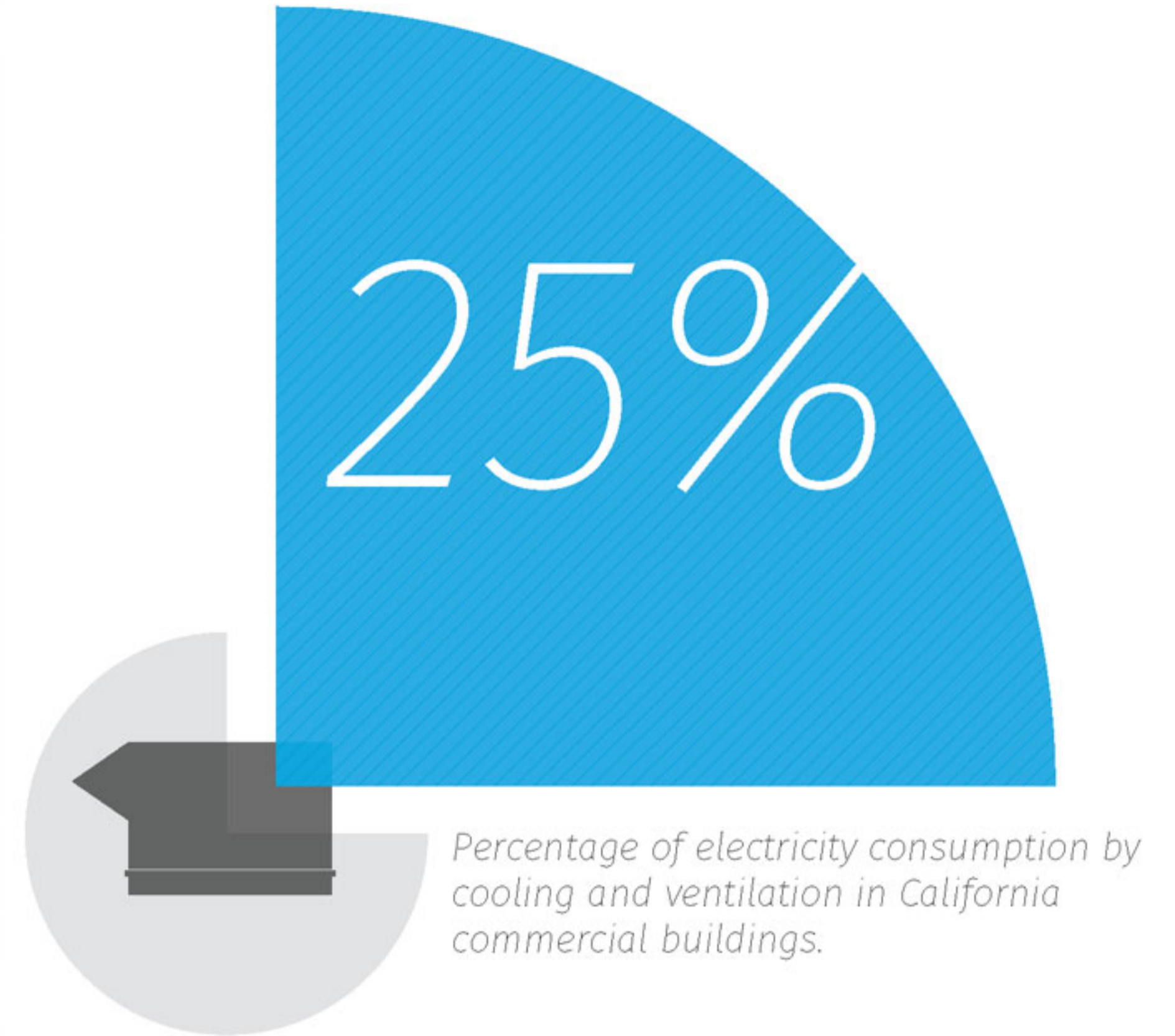
DualCool®

Save energy and maintain comfort across your business
Installation, maintenance, real-time fault detection and energy savings analytics



DualCool reduces cooling energy use by up to 40%.

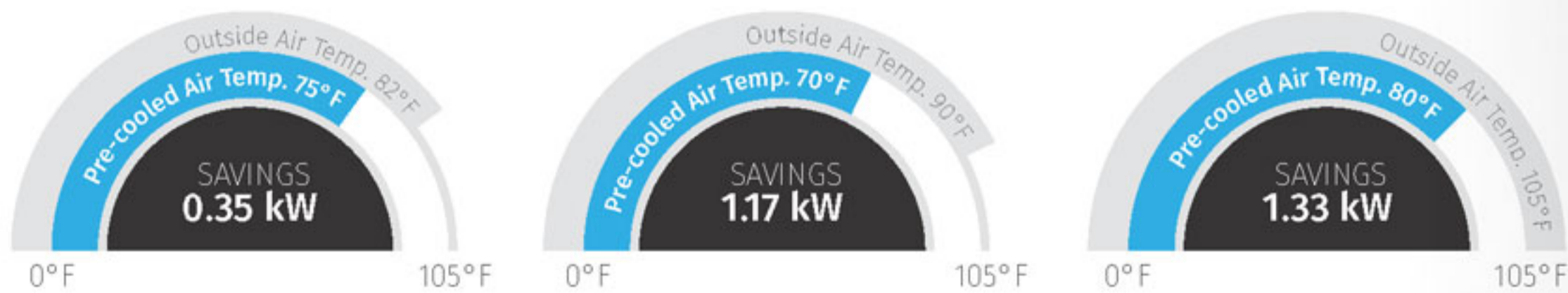
Rooftop HVAC Units are essential to your building comfort. Unfortunately, in hot dry climates, they aren't as efficient as they could be. That's why we invented DualCool. DualCool is a retrofit for your Rooftop HVAC Unit that can save you up to 35% on cooling energy and up to 40% during peak demand hours.



1. Evaporative Condenser pre-cools condenser air

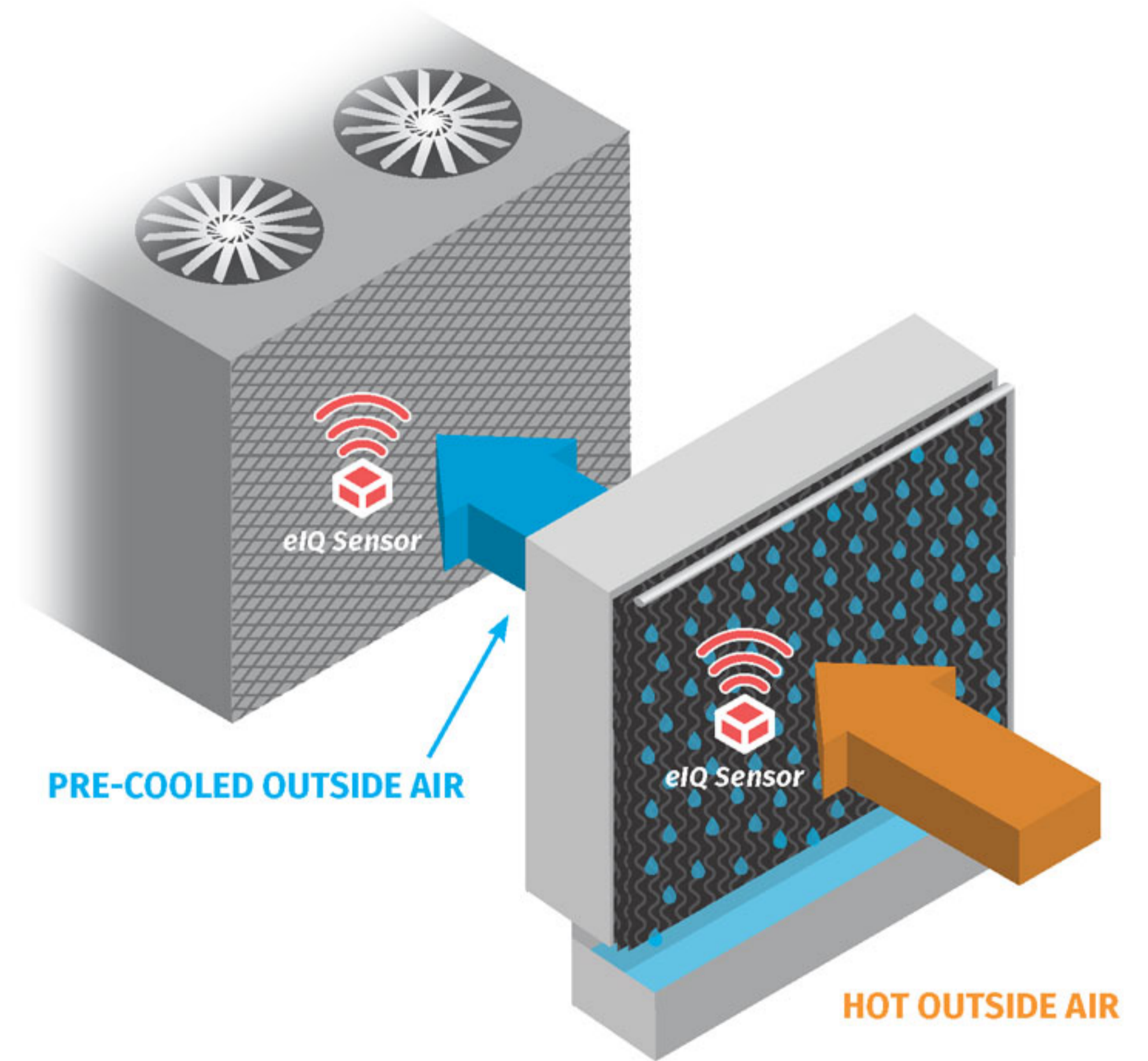
Your condenser is the transport for all the heat generated by cooling your building. One or more fans work to dump the heat from the condenser to the outside environment. This workload is very energy intensive, especially when the outdoor environment is already hot. By pre-cooling the condenser air and lowering the condensing temperature, you reduce the workload and save energy.

Temperature reduction is tracked in real-time by integrated eIQ controls by Transformative Wave.

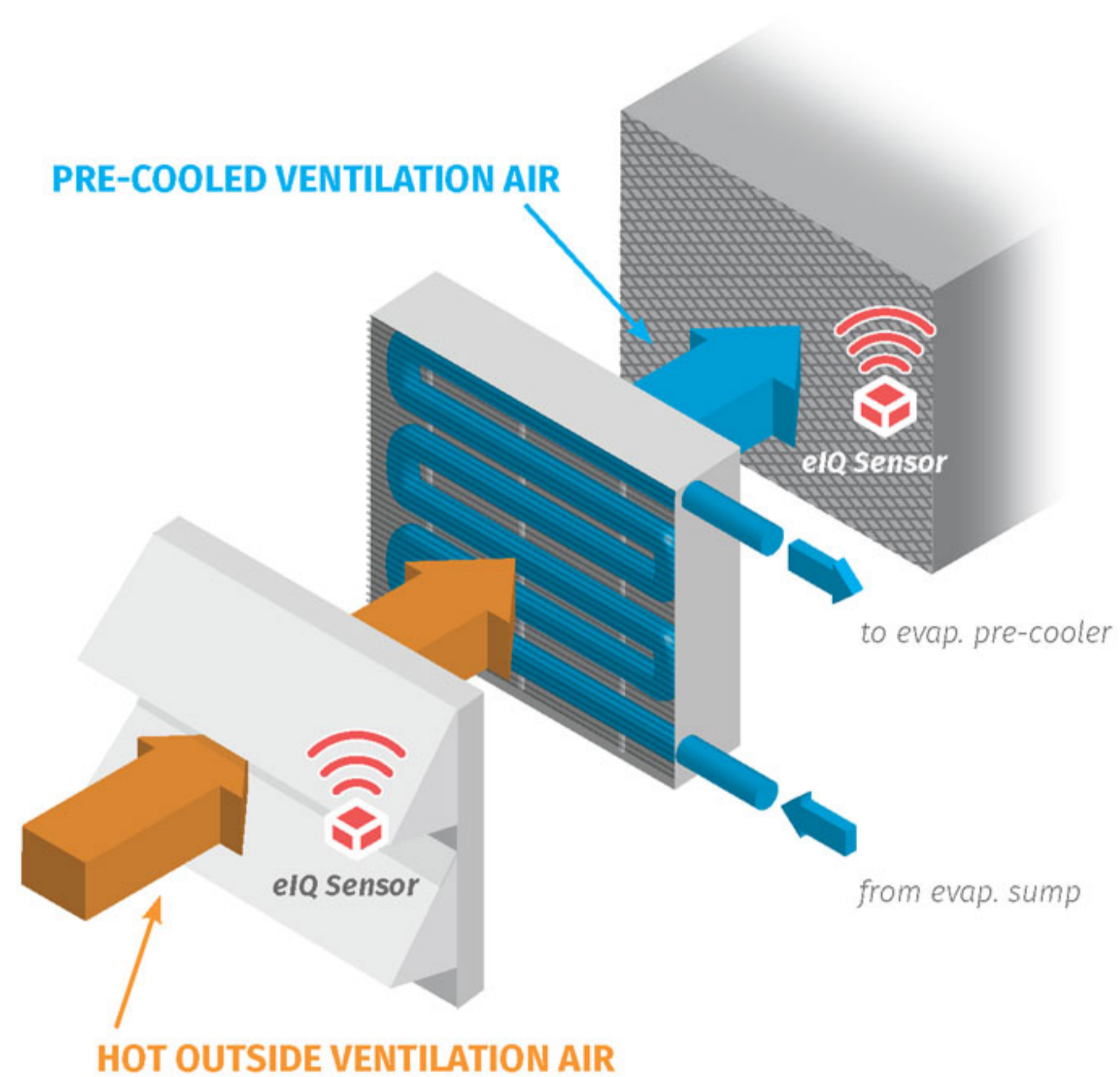


PG&E Lab Test Results July 2014

CONDENSER SIDE OF A ROOFTOP UNIT



EVAPORATOR SIDE OF A ROOFTOP UNIT



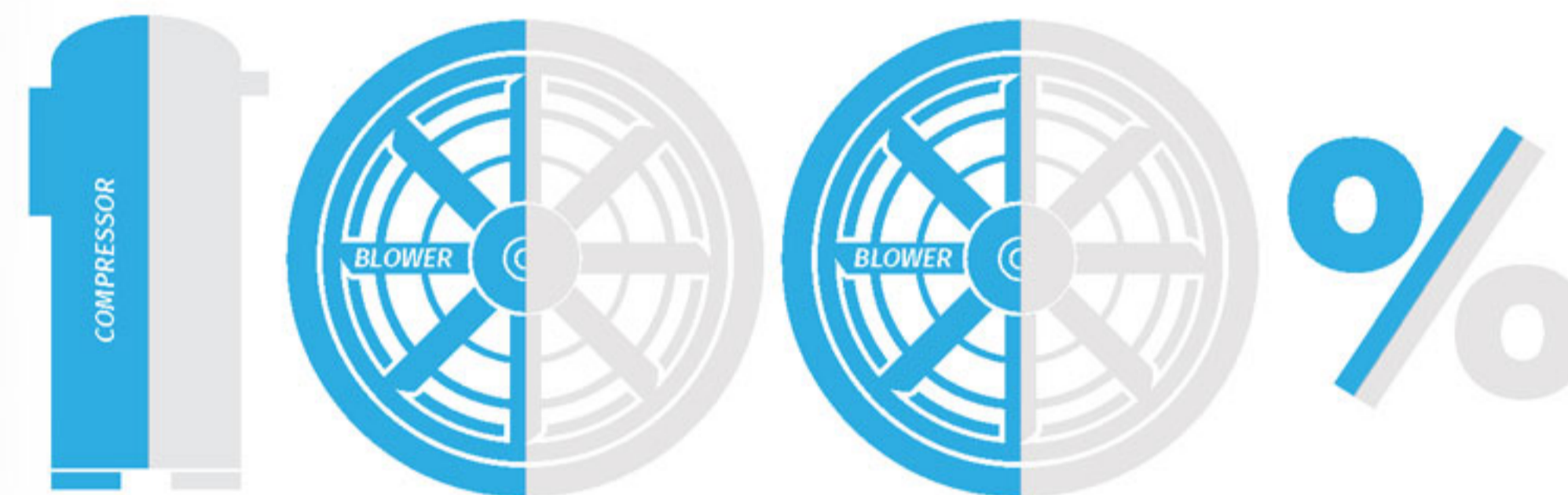
2. Water coil pre-cools ventilation air

All commercial buildings require ventilation to maintain healthy air quality levels. Ventilation air is usually supplied through the rooftop units, significantly increasing cooling loads in warm weather. The DualCool water coil reduces the ventilation air temperature before it goes into the building. DualCool controls track this temperature reduction in real time. This reduces the extra load added from ventilation air, thus saving energy.

3. Even more energy savings.

DualCools patented technology effectively increases the cooling capacity of your rooftop unit. This not only enables you to deliver more potential cooling when needed, it also allows your system to meet your cooling requirements at reduced fan speeds and part-load compressor operation, which can further significantly reduce energy. Integrated Comfort now offers **Catalyst Variable Frequency drives**, by Transformative Wave, as part of a DualCool implementation.

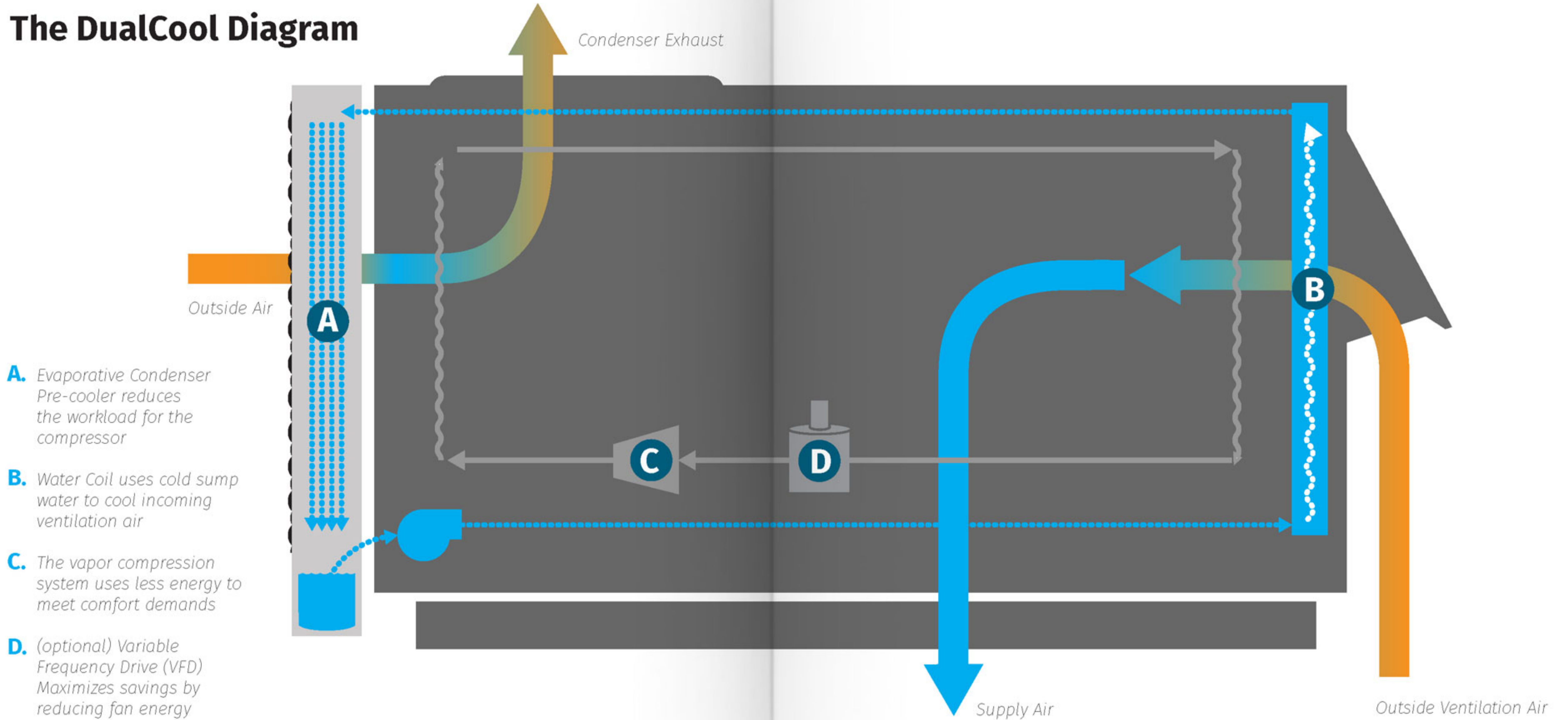
MEET COMFORT DEMAND WITH LESS THAN



CAPACITY.

By utilizing a Catalyst Variable Frequency Drive designed for use with DualCool and CoilCool cooling solutions.

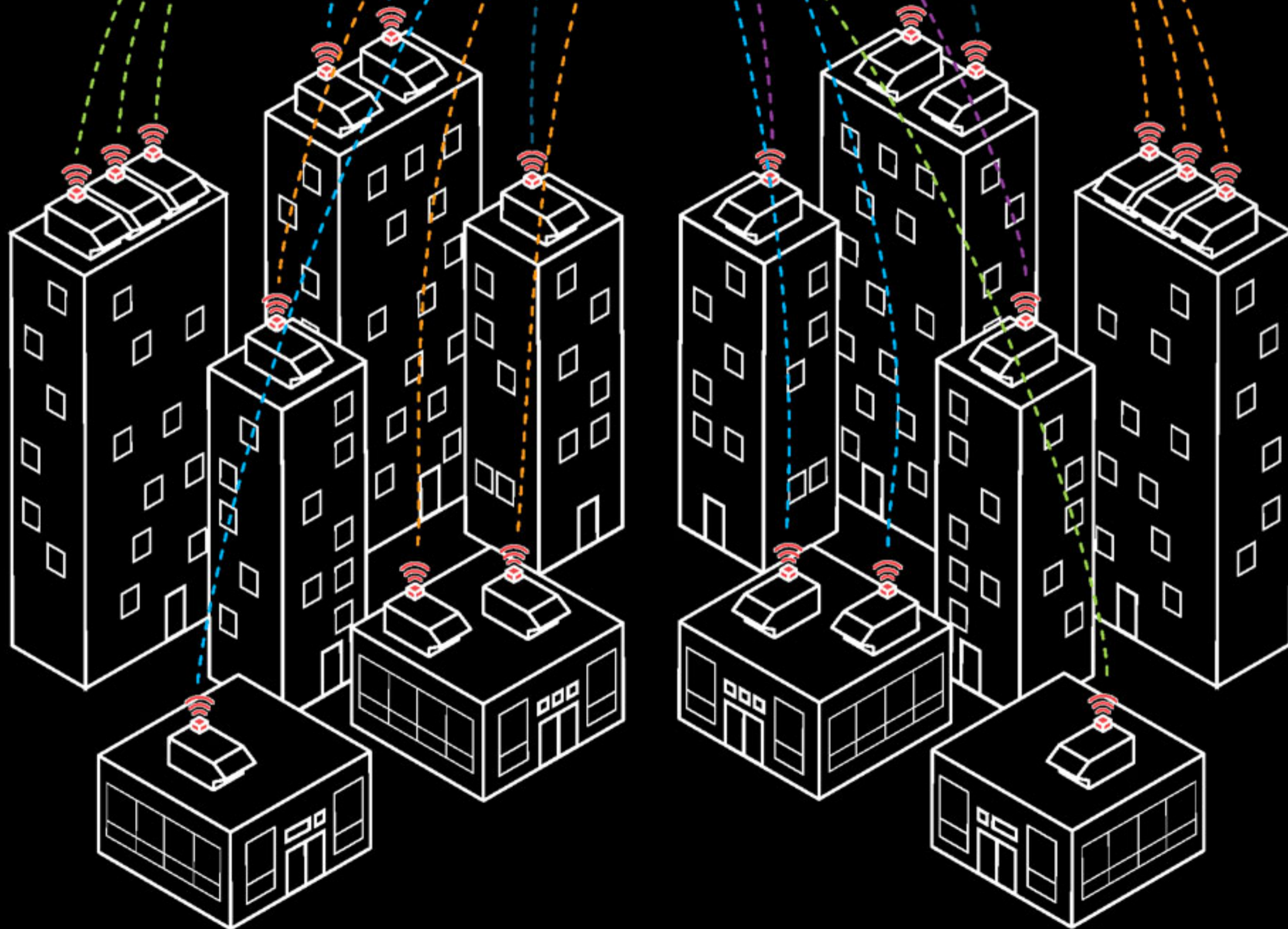
The DualCool Diagram





Enterprise Cooling Efficiency Solutions

Fault detection and realtime savings analytics
for all your HVAC systems, wirelessly.



Peace of Mind with Comprehensive Care and Realtime Management

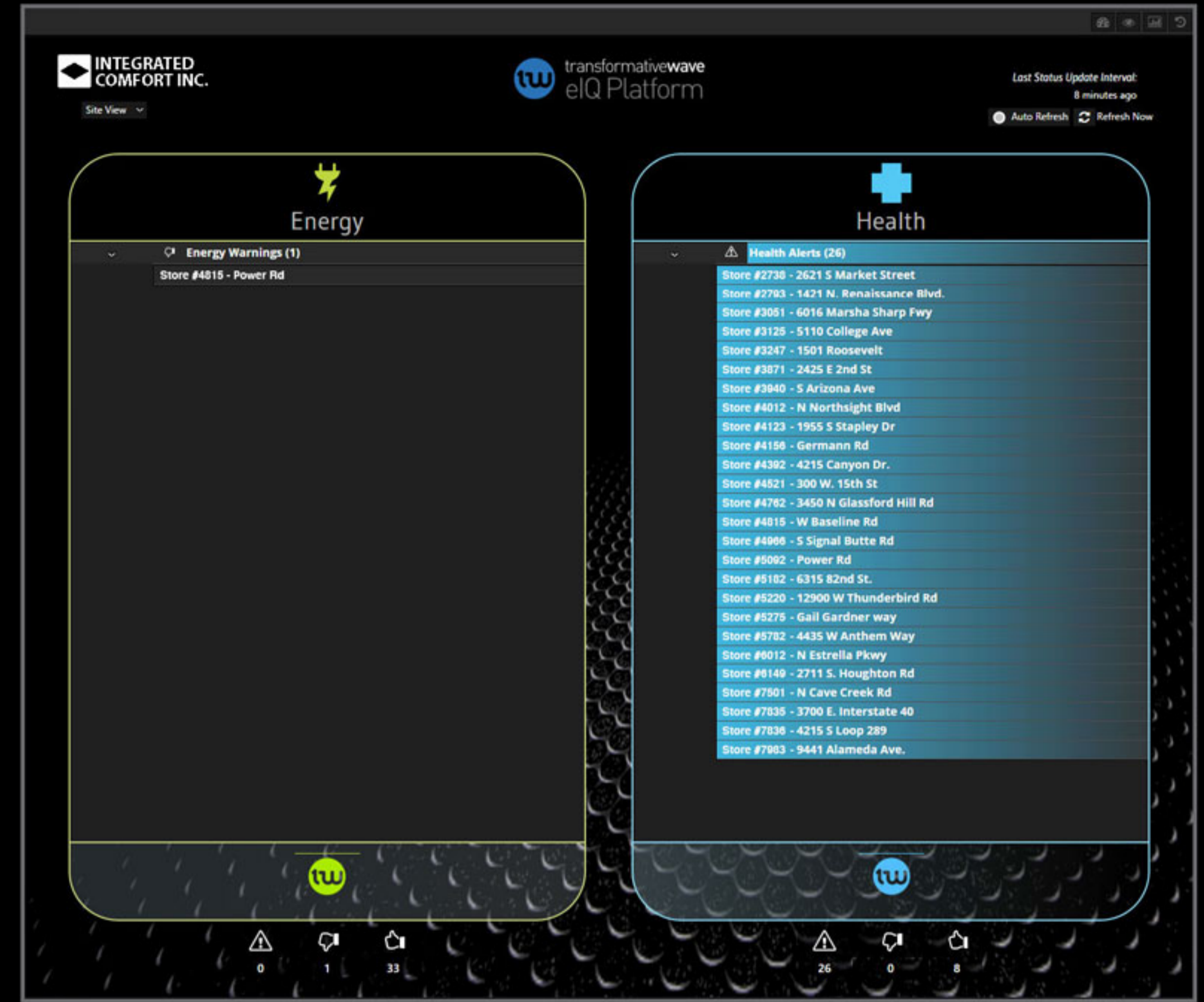
Maximize the savings from your DualCool with ICI's service and monitoring solutions. Our seasonal service plans provide 3 proactive maintenance visits to ensure maximum productivity. And our enhanced fault detection and monitoring provide realtime alerts and analytics.

The Site Dashboard

Quick vitals for each system at every location

The Site Dashboard gives you the power to know exactly what commands each of your HVAC systems are executing, in near real-time. The Site Dashboard will also inform you if your system is performing optimally and is in good operational health.

The Site Dashboard provides a host of important general metrics including location outside air temperature, air handler unit temperature, humidity, dewpoint, operation mode and ventilation source. In addition, the Site Dashboard provides these specific metrics for each of your HVAC units:



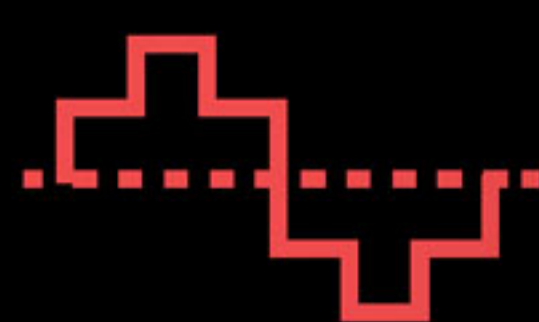
Evaporative Cooling Pump



Evaporator Fan Condenser Fan



Cooling Stage 1 Cooling Stage 2



VFD Fan Mode



Economizer Mode



Outside Air Damper (as a percentage)



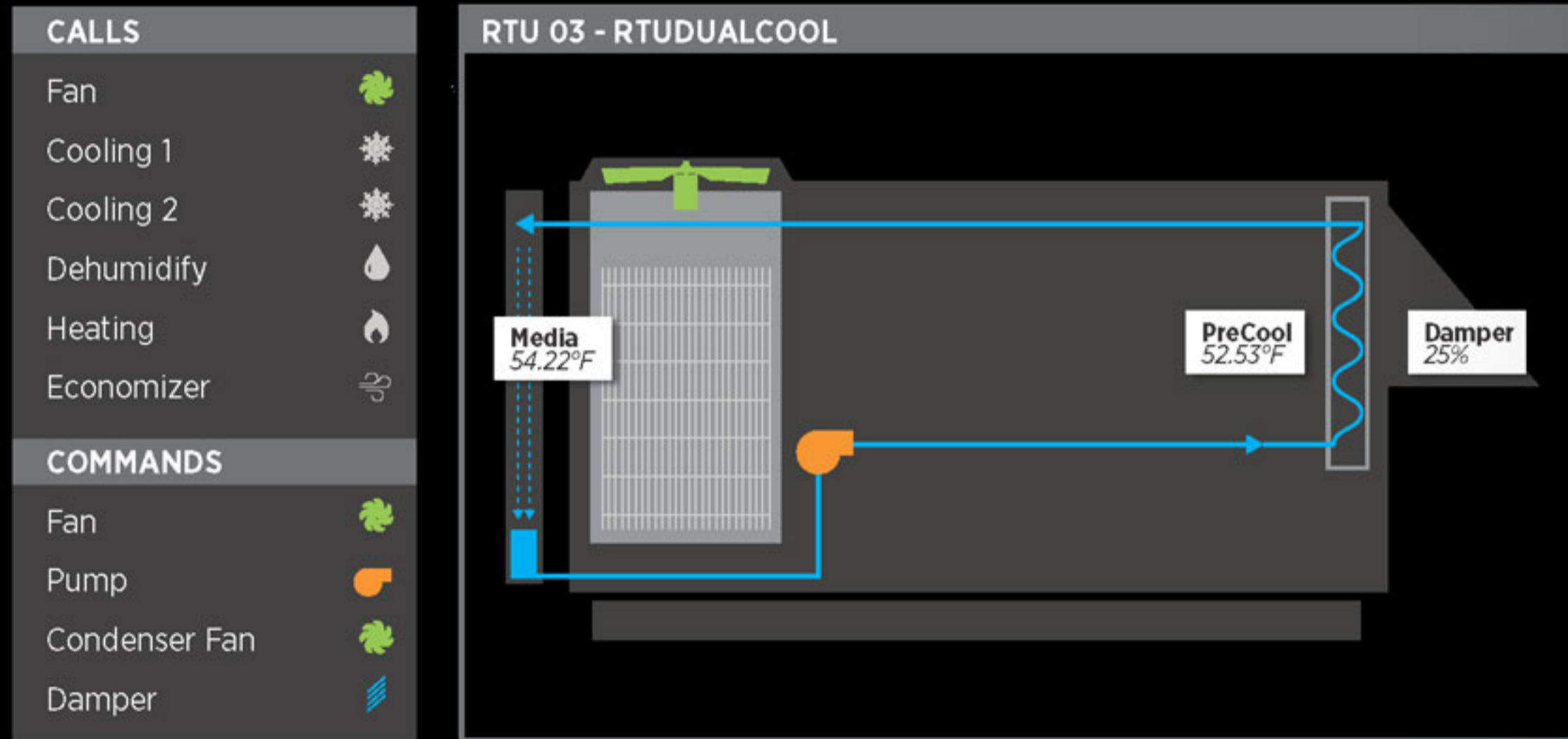
Evaporative Media Air Temperature



Dehumidification

Even Greater Detail Individual Unit Operation

Diagnosing improperly tuned systems has never been easier. Integrate allows you to see exactly what is happening in each of your HVAC units and allows you to choose which notifications to receive.

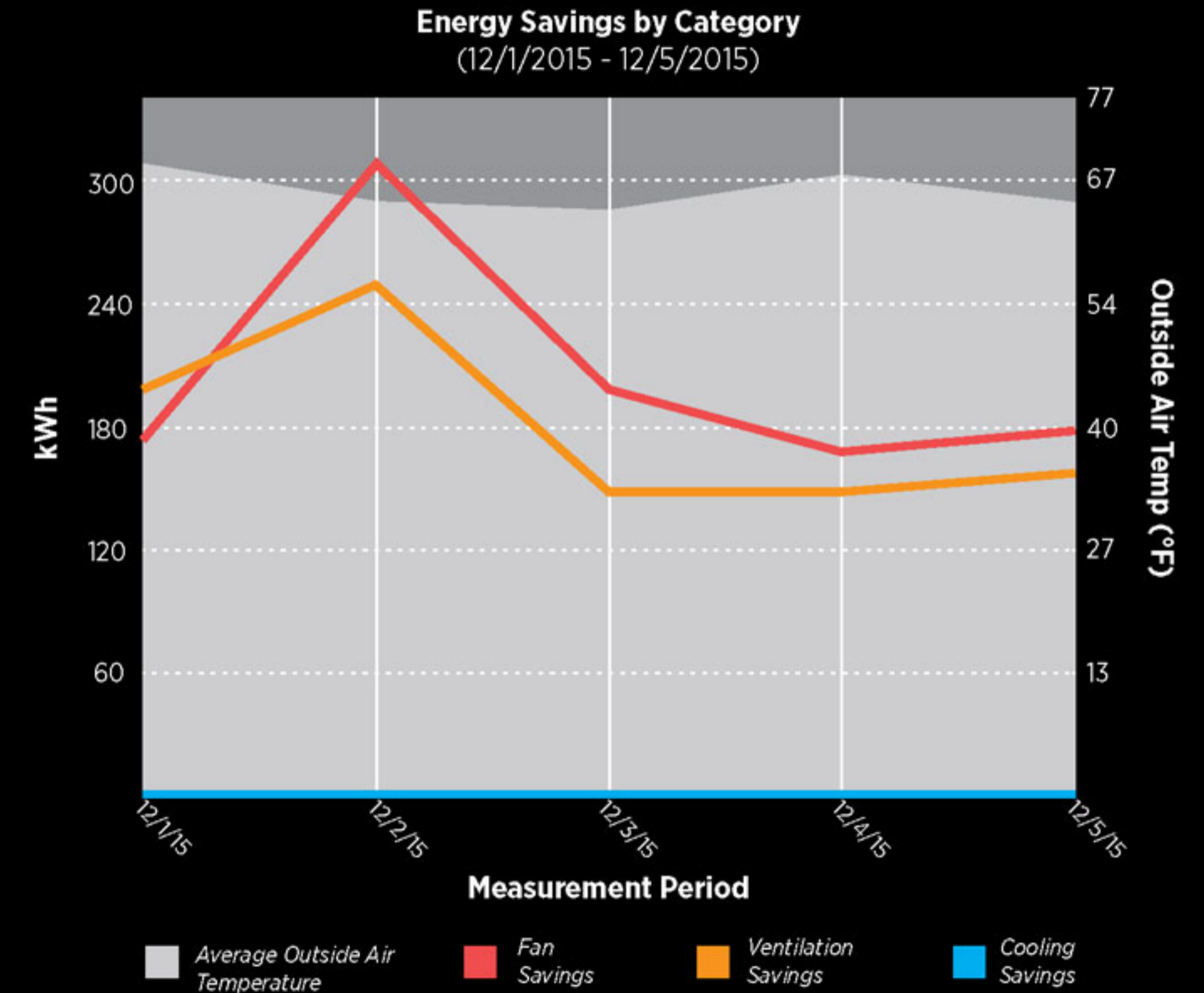


Fault Detection Notifications

FAULT DETECTION EMAIL NOTIFICATION SETTINGS				
Communications	Media Sensor	Pre Cool Sensor	Performance	Pump
<input type="checkbox"/> Don't Send	<input type="checkbox"/> Don't Send	<input checked="" type="checkbox"/> Send	<input type="checkbox"/> Don't Send	<input type="checkbox"/> Don't Send

Keeping Track of Your Savings Any Day, Week or Year

Take control of your energy savings with Integrate's built in energy savings analytics that measures savings at the component level.



DualCool offers you practical energy savings and delivers an impressive ROI.

By practical we mean the DualCool will pay you back sooner rather than later. Take a look at these real world results, we think you'll agree that a DualCool retrofit is a great energy saving investment.

Typical DualCool Project Economics

	10-Ton	20-Ton	40-Ton	90-Ton
Customer 1 unit, installed	\$8,000	\$11,500	\$16,250	\$21,375
Customer 5 units, installed (per unit)	\$6,680	\$9,520	\$13,280	\$16,920
Customer 20 units, installed (per unit)	\$5,900	\$8,350	\$11,525	\$14,288

Payback (in years at \$0.20/kWh savings)

1 unit installed	10-Ton	20-Ton	40-Ton	90-Ton
Retail 24/7	4.7	3.4	2.4	1.4
Retail 16/7	6.1	4.4	3.1	1.8
Office/School 11/5	8.8	6.3	4.5	2.6
5 units installed				
Retail 24/7	3.9	2.8	2.0	1.1
Retail 16/7	5.1	3.7	2.5	1.4
Office/School 11/5	7.3	5.2	3.6	2.1
20 units installed				
Retail 24/7	3.5	2.5	1.7	0.9
Retail 16/7	4.5	3.2	2.2	1.2
Office/School 11/5	6.5	4.6	3.2	1.7

- NOTES:**
- Assumes 35% outdoor air
 - Performance varies with unit design and refrigerant
 - Assumes utility incentive of \$200 per kW saved
 - Costs vary with specific RTU design
 - Installed price includes water supply and 2 year service & warranty package
 - Based on CA Valley Climate Zone

Contact us now and start saving energy.

916.246.8864
sales@icidualcool.com
icidualcool.com

