

Refrigerated Transport  
Refrigeration  
HVAC Manufacturing  
Water Heating  
New-Con Specification  
Commercial Retrofit  
Facilities Management  
Print & Advertising  
International Markets  
State, Federal, Military  
Infrastructure  
Distribution

# Green World Tek, LLC

Phase Change Applications and Distribution Strategy



# A Company Focused on Building a Better Future for the Planet.

- Leveraging the experience, partnerships, product lines, programs and opportunities that GWT has earned distribution rights.
- Leverage the enterprise level reach, organizational development, distribution expertise and operational excellence that is the foundation of its members.
- Building out a back office and systems infrastructure that can support rapid growth and efficiencies
- Expand the Sales Team, Distribution Channels and Manufacturing Opportunities
- Multiple provisional patents on new technologies designed to leverage Phase Change Materials in frozen/refrigerated trucks, temperature-controlled facilities and in building envelope airflow systems

A person wearing a white lab coat is shown from the chest down, pointing their right index finger towards a device (likely a smartphone) held in their left hand. The background is slightly blurred, showing other people in white lab coats.

## About Us

GWT is dedicated to representing the finest and most innovative energy conservation and renewable energy products, services, and programs available.



# The Vision

A multi-channel distribution network into high impact verticals

Enter into a distribution agreement as the Master Distributor for PhaseStor (Completed)

- Worldwide distribution rights.
- Engineering support to develop products to satisfy the needs of emerging markets.
- Build, manage and lead a global sales force focused on the highest impact verticals such as refrigeration and building envelope.
- Build the infrastructure for website, pipeline management, reporting, CRM, scheduling and back-office functionality



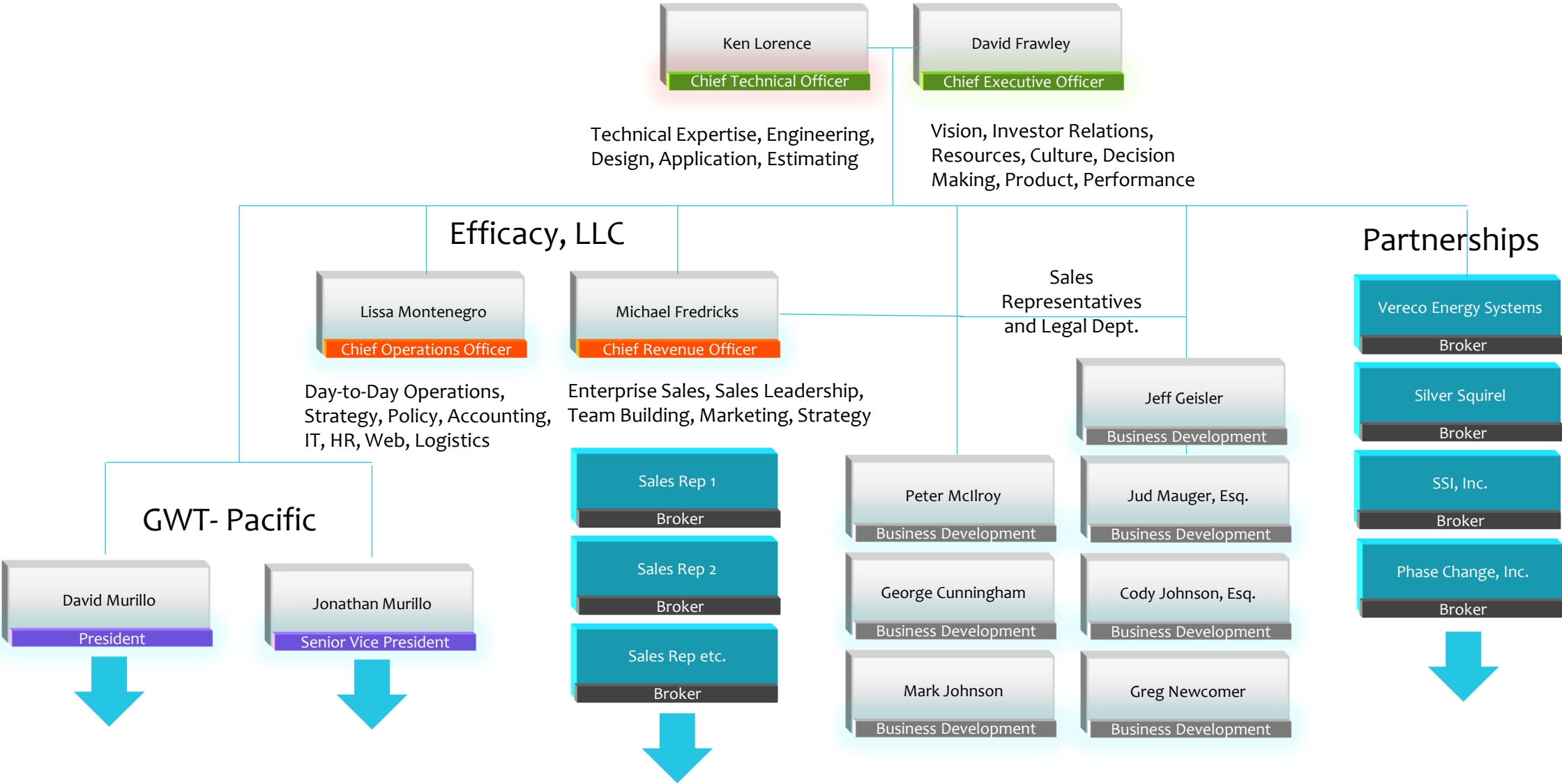


# Organizational Chart

Roles and Responsibilities

# Organization CHART

## Green World Tek, LLC



# David Frawley- Bio

Mr. Frawley studied HVAC Engineering and Refrigeration at Triton College. He began his HVAC/R career in 1978 and spent 6 years in the installation and service field along with continued education with Temperature Maintenance Corp. In 1985, Dave started *Precision Mechanical Inc* which he owned and operated for 32 years until the company sale in 2017. Precision Mechanical specialized in the refrigeration market from food manufacturing, produce, meat packing, warehouse distribution and process chilled water for cooling applications. PMI has serviced and installed hundreds of Chilled water and Hot water applications either for process and heating or cooling. PMI has refrigeration installations in over 15 states ranging from 65-degree candy room to minus 40 degree blood banks.

Dave spent most of his time on growing the commercial and industrial refrigeration clients, improving operation and efficiencies for Illinois, Wisconsin and Indiana. In addition, the new company specializes in service and installation of grocery store applications in Illinois, Wisconsin and Indiana with combined company annual sales over 75 million.

In March of 2017, Mr. Frawley recognized the efficiency opportunity developing in the refrigeration industry. Mr. Frawley joined Green World Technologies Group to help his clients and businesses across the United States to improve their energy goals through hand-selected renewable and sustainability product lines of which GWTG, LLC is a master distributor.

## Certifications:

- Certified Test and Balance Air and Water
- Boiler and Chiller Certification
- Heat Load Calculation
- NATE Certification
- R-410A Certification
- Indoor Air Quality Certification
- EPA Certification

CEO



# Ken Lorence- Bio

Mr. Lorence began his career in HVAC in 1977 and spent 7 years becoming a master of the trades. In 1984, he launched the first of several HVAC companies that he owned and operated until 2002.

Ken spent the next 7 years as the head of commercial sales for Northern Weathermakers in the greater Chicagoland area and remained their top performer until the Great Recession and economic collapse of 2009. Seizing upon the opportunity to leverage the state of the economy, Ken launched KNS Energy Services and Raptor Mechanical which he still owns and operates to this day.

In 2015, Mr. Lorence again had the foresight to see an opportunity developing in the industry. Many of his clients were moving towards higher efficiency products to lower their carbon footprint and adhere to new government mandates and standards on commercial business efficiencies. Ken formed Green World Technology Group along with Rodney Hoover to help his clients and businesses across the world meet their energy goals through hand-selected renewable and sustainability product lines of which GWTG, LLC would be a master distributor.

His expertise in mechanicals has given GWTG, LLC the capability to assist some of the largest HVAC manufactures in world in the design new, ultra high-efficient equipment in the HVAC and water heating verticals. These designs will completely revolutionize those industries.

## Certifications:

- Certified Test and Balance
- Boiler and Chiller Certification
- Heat Load Calculation
- NATE Certification
- R-410A Certification
- Indoor Air Quality Certification
- EPA Certification

**CTO**



# Michael Fredricks - Bio

Mr. Fredricks studied mechanical engineering at Penn State University and holds a BSBA from University of Phoenix. He has spent 31 years in the trades with 50% of that time dealing directly with OEM's in the HVACR industry. He currently is the SVP of Sales for Watercress Financial, an Investment Banker, and provides the financing programs these manufacturers and distributors promote to their contractors, dealers and/or franchises.

Prior to joining Watercress, Mr. Fredricks led national sales organizations for brands such as:

- Sears Home Improvements, National Marketing Manager
- Service Master (American Residential Services), Regional Sales Manager
- Culligan International, Global Director of Expanded Sales Channels
- Empire Today, VP of Sales
- Protection One (ADT) Security Systems, VP of Sales
- Skil-aire, VP of Sales
- RenewAire, VP of Sales
- Fortiva Financial, SVP of Sales
- Amerifirst Financial, SVP of Sales
- Hearth Home Improvement Finance, SVP Business Development & Strategic Partnerships
- Watercress Financial, SVP, Head of Revenue (Sales & Marketing)

Mr. Fredricks has spent his career structuring, sourcing, recruiting, interviewing, onboarding, training and leading sales and Marketing organizations as large as 1500 sales representatives, managers and executives. He has managed P&L's in excess of \$100M for multiple brands.

- Six Sigma Green Belt Certified, Sears & ServiceMaster
- Penn State University, Mechanical Engineering
- BSBA, University of Phoenix
- Member of the Knights of Columbus
- Featured in Brian Lambert's best-selling book, *7 Steps to Successful Selling*

**CRO**





# Lissa Montenegro- Bio

Lissa holds a degree in Applied Sciences Drafting & Design from Robert Morris University Chicago. She has over 28 years experience in project management including proficiencies in, office, team, and process, management and their relevant applications and technology.

She is currently the Global Business Manager for Underwriters Laboratories UL University, primarily responsible for vendor management, global project management for enterprise deployments, ULU global processes, business reporting analysis, as well as virtual instruction for leadership & management and learning management systems content.

Prior to her career at UL LLC, her early years were spent Motorola as Engineering Support Personnel and a GIS Analyst, and at York Refrigeration as Project Manager.

At Motorola, she successfully headed, streamlined, and implemented the Installation & Volume Documentation process for cellular system installations. As a GIS analyst she interpreted and classified geographical data to determine cellular site locations worldwide.

At York International, she effectively developed an EDocumentation process alleviating physical storage limitations of engineering and customer specifications. She also designed and executed an interactive pricing and product specification worksheet leveraged by the Marketing Sales Force to provide accurate and timely quotations.

## Certifications:

- Lean Six Sigma Yellow Belt Certified– UL Underwriters Laboratories
- Accelerated Flawless Consulting – Designed Learning
- Team Performance – The Grove Consultants
- Strategic Visioning - The Grove Consultants
- Master Virtual Facilitator – ATD Association for Talent Development
- Master Virtual Producer – ATD Association for Talent Development
- Maximizing Adobe Connect – InSync Training

COO



# Peter McIlroy- Bio

During a 23-year career with leading international strategic consultancy Fitch:RPA, Peter McIlroy has served as sales “rain maker” to secure, nurture and maintain significant relationships with some of the world’s leading retail and consumer goods brands.

Believing his prime role is to insure that “his” clients meet or exceed stated expectations; Peter has always encouraged his many respected clients to strive for excellence – so constantly grow from being a good company to becoming a great company.

Choosing to focus his attention on developing the international marketplace, he quickly learned the power of long-term relationships and the significance of his company’s contribution when trust and reliability are always the hallmark of success. It is no wonder that included in the portfolio of great companies with whom Peter and his company have collaborated are Nokia (Finland), AEON Group (Japan), Tesco (UK), Metro (Germany), Adidas (Germany), Kodak (International), Microsoft (International), Starbucks (International), 7-Eleven (International) and Wal-Mart (International).

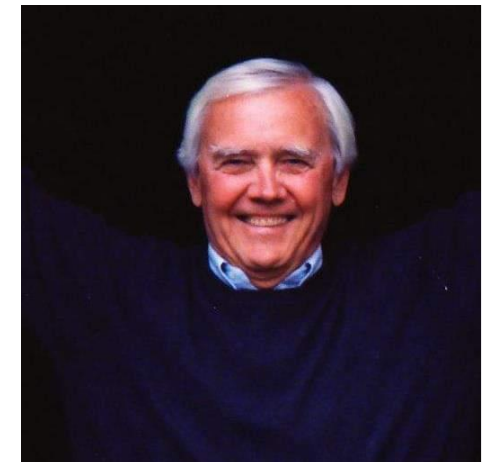
Before joining Sellex as a Partner in 2005, Peter was the Partner in charge of the international practice, working through various hand-picked agents to accomplish what so few US based marketing companies can do with consistency – be both globally experienced, but also locally trained.

Prior to this career, Peter served in various capacities with Baxter Medical (formerly American Hospital Supply), from sales representative through Canadian managing director to serve the Canadian hospital industry with over 30,000 medical supplies and equipment.

B.A. University of Western Ontario (1965)

MBA University of Western Ontario (1966).

## Sales Leader



# Jud Mauger- Bio

Mr. Mauger began his international career as the Far East/South Pacific Sales Manager for Anchor Hocking Corporation, one of the world's largest manufacturers of glassware and glass products. He directed all activities of the foreign manufacturer's representatives and agents. He developed and implemented various sales and marketing programs on a country to country basis. He left Anchor Hocking Corporation to become the Vice President of sales and marketing for Crystal Classics, Inc., a company dealing in specialty glassware. Armed with the experience gained at Anchor Hocking and Crystal Classics, Mr. Mauger became the president of Absorbco, a division of Grossman Industries.

In 1993 Mr. Mauger was hired as a vice president of Retail Planning Associates, one of the world's leading retail consulting and design firms. He utilized his managerial and international expertise in the development of numerous accounts, both domestic and international, with specific focus on retailers and consumer goods manufacturers.

Mr. Mauger left Retail Planning Associates to pursue a private practice law career.

Mr. Mauger and his business Partner, Peter Mcilroy, have collaborated over the last 15 years on product development and niche market identification and strategies for security and energy products.

J.D., magna cum laude, Capital University Law School

M.B.A., The Ohio State University, Weidler Scholar

B.S., The Ohio State University, in International Business.

## Sales Leader





# The Evolving Team

The right people with the right experience

Adding people who are collateral assets to the broker organization is key

- Pay for performance.
- Subject matter experts.
- Leverage their sphere of influence.
- Recognition and reward.
- Training, development and communications plans



# Recruiting Update

## **Lisa Ambrose – Skil-aire & Phase Change, Inc CEO**

- Specialty HVAC Manufacturer
- Large Network of Manufacturer Reps
- Her brother is an engineer for the State of CA
- White-labels equipment for Trane and others
- Designing equipment to include Phase Change

## **Jeff Geisler – Senior Executive in Facilities Management**

- Large network of facilities management professionals
- Clients like Starbucks, fast-food chains, large banking institutions
- Part of his job is to save their clients on utility expense

## **Jeremy Smith – National Specification Manager, Solar & Palou USA (HQ'd in Spain)**

- Largest HVAC distributor worldwide
- He oversees getting architects & engineers to specify ventilation
- Knows all the architects/engineers building all the large, multi-unit housing projects in the USA
- Can get us involved directly with Solar & Palou worldwide

# Recruiting Update (continued)

## **Joe DiChiarro – Central Ink**

- Executive sales for one of the largest ink distributors in the USA
- Ink needs to maintain temperatures above freezing during transport
- Looking for logistic solutions for truck and rail
- Can promote PCM's to all their end-users for commercial retrofit

## **Marlo Nieves – Refrigerated/Frozen Food Logistics**

- Chiller Lorry or Reefer Trucks need to maintain food at temperatures, or they lose the shipment
- Trucks need to run, even when parked, to keep Refrigeration units going
- Costs tons of full, lots of maintenance on the refrigerated units, and need to hire HVAC trained drivers
- PCM Panels will take up approximately 1 skid of food
- Marlo also knows the manufacturers of refrigerated rail cars and tanks

## **Nigel Gillet – Commercial Real Estate, Chicago**

- Nigel is one of the most successful and connected commercial real estate agents in Chicago.
- He is well connected to many potential commercial retrofit opportunities
- Bilingual from Belize and has many Central American Connections

# Recruiting (continued)

David Murillo – Indiana

Jonathan Murillo – Philippines

- David and Jonathan are Lissa's first cousins.
- We are creating a new entity, Green World Tek– Pacific with the Murillos to serve South East Asia and the Middle East.
- The Philippines and Singapore have set mandates for efficiency and deadlines and Phase Change will be an integral part of the country's strategy.
- We are seeking representation from another relative, **Lampert Jackson**, who owns a large logistics company in the Middle East, Ajman Marine Services, to introduce PCM's to all the petroleum-based products companies that he provides shipping.
- David Murillo has also been a university professor at some prestigious USA universities and believes his contacts in education could provide us a lot of business
- Their family members in the Philippines are some of the wealthiest and successful lawyers, doctors, dentists, politicians, big box retail chain owners and landowners operating destination resorts. Their connections to the government are very strong.



# Recruiting (continued)

## Corporate Representation from other “Green Companies” - Partners

- **Strategic Solutions Integrated, Inc** - Strategic Solutions Integrated, Inc is a Veteran-Owned Small Business headquartered in Fairfax County, VA. SSI specializes in providing unique access opportunities to international and domestic as well as government and industry leaders in a wide variety of disciplines.
  - [Home - Strategic Solutions Integrated, Inc in Washington, D](#)
- **Vereco Energy Systems** – Green energy systems & cost savings solutions
  - [Vereco Energy Systems | Green Energy Systems, Cost Saving Solutions](#)
- **Silver Squirrel** - Mark & Cody Johnson





# PARADIGM SHIFT

We have projects progressing that will change industry paradigms

- **Frozen/Cold Transport, Refrigeration, Cold Storage**
- HVAC, Water Heating
- Energy Recovery Ventilation
- New Construction & Retrofit
- Universities and Education
- Agriculture



## Pipeline

GWT is engaged with many opportunities that could be game changing for multiple industries.





# Back Office Infrastructure

Enhancing Efficiencies, Tracking and  
Operational Excellence

# Infrastructure

Develop, implement, and provide the essential business functions related to operations.

## Browser-Based Intranet Site

Effective collaboration  
platform

Secure permission-based  
access

Multi-device accessible



## Streamline Business Activities

Real-time effective  
collaboration

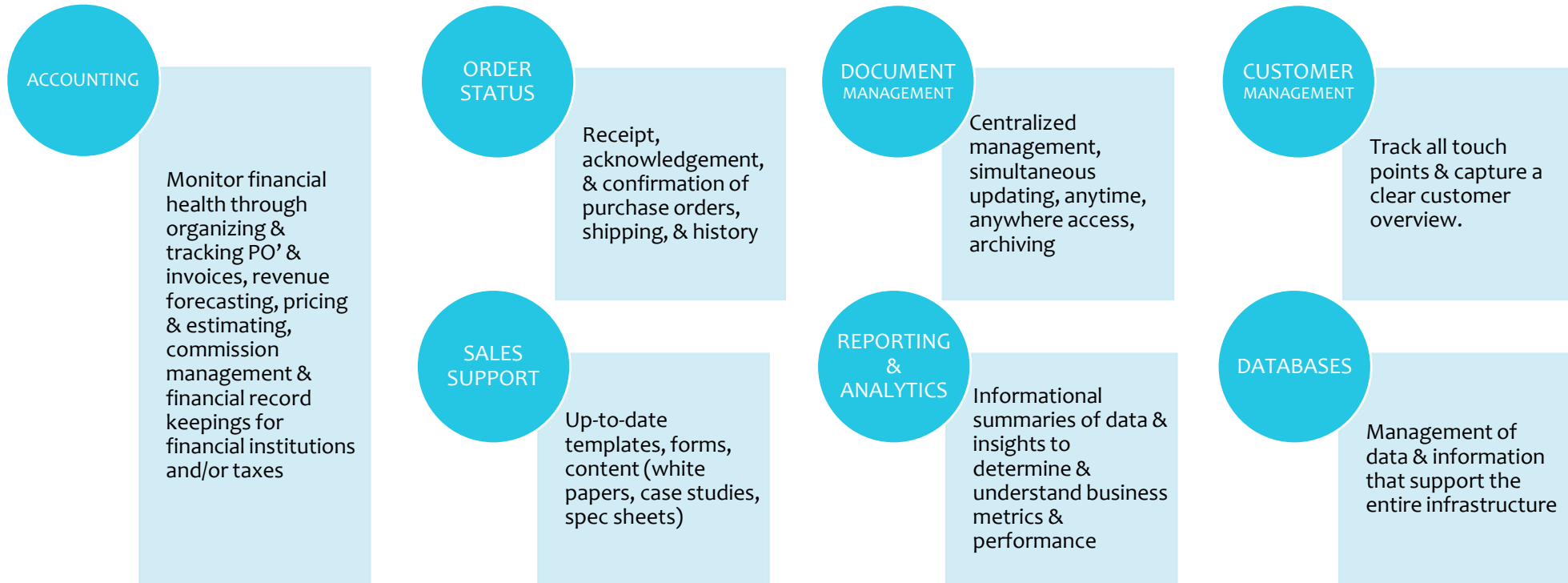
Automated work-flows  
& notifications

Search & indexing  
capabilities

Single source of truth

# Infrastructure

Develop, implement, and provide the essential business functions related to operations.







Green product offerings that open the door to opportunities for GWT for numerous other PCM applications.

# Technologies

**Phase Change Solutions - PCS:** Passive thermal energy storage products derived from sustainable plant extracts that hold temps from minus 85F to plus 347F. <https://phasechange.com/>

**ATTS Refrigerated Transport**  
**ENRG Blankets**  
**ENRG Panels**  
**PhaseStor Tanks**  
**Apollo Smart Units**

- Reduced Carbon Footprint
- Reduces HVAC power consumption up to 25-35%, lowering carbon emissions
- Extended Equipment Lifespan
- Extends HVAC equipment lifetime by decreasing run time up to 15-20%
- Quick & Easy Installation
- Most applications install within a few hours, avoiding business disruptions
- Whole facility energy reductions of 8% - 15% +
- Requires no power and maintenance, delivering savings for over more than 100 years

Sustainability is at the core of PCS. We create phase change materials that reduce energy use for our customers. At the heart of all innovations is our patented BioPCM® platform technology, a unique family of phase change material (PCM).

Phase change materials (PCMs) absorb and release large amounts of thermal energy while undergoing a phase transition (solid-to-gel, solid-to-liquid & solid-to-solid). This enables large amounts of heat to be absorbed or released at the transition points, without a significant rise in temperature. Unlike other PCMs, the transition temperature in BioPCM® can be tuned from -70°C to 175°C, thus enabling energy savings across a broad range of applications.

BioPCM® has enabled energy savings for our customers across the board. In cell towers and data centers, we also improve resiliency. In commercial buildings, we increase thermal comfort for occupants. PCS products enable food and medical products to be transported at the right temperature while consuming less energy.



# Technologies (cont.) GWT PROVISIONAL PATENTS

## Active Thermal Transport (ATTs)<sup>TM</sup> System

Reefer trailer compressor fuel usage reductions up to 88%

- A national refrigerated LTL carrier conducted a fuel consumption test on a reefer compressor during a 600-mile, 60 total hour cooler run. The reefer compartment maintained 34° F on a 34,000-pound load with outside temperature between 28° F and 63° F using an ATTs equipped 53' trailer. Result: .017 GPH diesel burn for the reefer compressor (Typical highway operations: .7 GPH Diesel and .4 GPH Electric) (Add .3 GPH APU / Subtract .3 GPH resting).
- Cost Savings
  - With ATTs - Assume 3,500 hrs/yr ATTs-modified road reefer refrigeration compressor use @ .084 gal/hr (88% usage reduction) fuel consumption = 294 gals @ \$3.35/gal = **\$985 per year fuel cost**
  - Without ATTs - Assume 3,500 hrs/yr standard road reefer refrigeration compressor use @ .7 gal/hr fuel consumption = 2,450 gals @ \$3.35/gal = **\$8,207 per year fuel cost**



ATT System

## Active Thermal Transport (ATTs)<sup>™</sup> System, cont.

- In 2017, the global market for refrigerated trucks was \$6.36 billion. U.S. and Canada refrigerated trucking market size reach revenues of USD 12 billion by 2020, growing at a CAGR of 4% during 2020-2025.
- **Based on 500,000 reefers in the USA (Yr. 2016 data) a 1% market penetration with the ATTs at \$10K per reefer = \$50,000,000 market opportunity. A 10% market penetration = \$500,000,000.**
- **A fleet-wide deployment, 7700 reefer trailers, by FFE/KLLM (current customers) of the ATTs would be 7700 x our volume pricing of \$8400 per truck = \$64,680,000. At a cost of \$5180 GWTG profit would be \$24,794,000.**
- **GWTG profit at a 10% market share = \$161,000,000 (at volume pricing)**



## Active Thermal Transport (ATTs)<sup>TM</sup> System, cont.

### Environmental Impact – assuming a 50% (low number)

- Diesel Fuel produces 22.38 Lbs. of CO<sub>2</sub> per gal burned
- Average reefer compressor diesel fuel usage of 2450 gal/yr

@ 1% ATTs market penetration with a 50% compressor fuel usage reduction:

- 5000 reefers x 2450 gal = 12,250,000 gal annual usage
- 12,250,000 x 50% = 6,125,000 gal usage reduction
- 6,125,000 x 22.38 Lbs. = **137,077,500 Lbs. CO<sub>2</sub> reduced annually**

@ 10% ATTs market penetration with a 50% compressor fuel usage reduction:

- 50,000 reefers x 2450 gal = 122,500,000 gal annual usage
- 122,500,000 x 50% = 61,250,000 gal usage reduction
- 61,250,000 x 22.38 Lbs. = **1,370,775,000 Lbs. CO<sub>2</sub> reduced annually**

# Technologies (cont.)

## GWT PROVISIONAL PATENTS

**Active Temperature/Thermal Diffuser (ATD)<sup>™</sup> System** - A product devised for the purpose of implementing phase change material solutions inside of heated and cooled spaces, including but not limited to, cold storage facilities, freezers, and other temperature controlled environments. The ATD's design allows for maximum airflow across phase change material filled chambers causing increased productivity of the phase change material. For example, the ATD described herein, when positioned within or next to the HVAC ducting or heating and cooling mechanism within a given space, can maintain that conditioned space at a desired temperature for prolonged periods of time without the use of heating and cooling forces, and it can perform this function more effectively and efficiently because of its proximity to the conditioned air emanating from the ducting or the heating or cooling mechanism of the air conditioning system.





# Thank You

Green World Tek Group  
847-652-0471  
[mike@greenworldtek.com](mailto:mike@greenworldtek.com)  
GWT Presentation