



CUTTING EDGE TECHNO SOLUTIONS

Delivering a Global Carbon Emissions Reduction Program on a Digital Ledger Circular Economy Platform

CETS TECHNOLOGIES strategic partner **AHART SOLUTIONS INTERNATIONAL** (ASI) was established in 2012 in Dubai, United Arab Emirates. This partnership brings a global consortium consisting of more than 30 companies. Our best-in-class international consortium members have been carefully vetted, thus guaranteeing the highest quality of services. The Seven Pillars of our operations are:

- **Healthcare;**
- **Energy;**
- **Construction;**
- **Security;**
- **Emergency Medical Services;**
- **Agribusiness;**
- **Waste Management.**

In all Seven Pillars of CETS-ASI, we are engaged in providing complete turnkey solutions through customized value-chains from conception of a project to completion and beyond. We are ready, willing and able to provide participants with specifically designed solutions wherever they are.

PARTNERSHIP VISION: To be renowned for managing Nation States and enterprises that generate clear and quantifiable enhancements to the lives of individuals and communities around the world.

PARTNERSHIP MISSION: To enable the optimization of regional emerging markets underlying processes to achieve more efficient results through the development of specifically designed solutions.





PILLAR 1
HEALTHCARE



HEALTHCARE

Around the world, the state of healthcare is in constant flux. Conditions range from nations where the best-case scenario is one of barely keeping up with the demand for enhanced medical treatment to those where it has reached absolute crisis point.

The urgent need for more elite services, experienced medical staff and improved operational financial management is endemic. This is where our seven pillars offer the solutions.

Our Healthcare and Construction pillars provide the design and construction of hospitals, then equip, staff, provide medical services, and operate them.

Our Energy pillar provides the LNG for the energy conservation systems built into the hospitals, and our Security pillar provides the biometric security systems and command center, as well as trains the security personnel.

THE UNITED STATES OF AMERICA

The healthcare crisis in the USA is twofold: the increasing prevalence of diseases, and the unspoken crisis within its healthcare provider and payer system.

The top diseases currently found in the USA are Ischemic Heart Disease or Coronary Artery Disease, Stroke, COPD, Type-II Diabetes, Obesity, Alzheimer's and Dementia-related disease, and Cancer.

The second factor that contributes to the mounting healthcare crisis is the insufficient number of medical providers for the number of patients, and the lack of funding for healthcare costs. A report by the Association of American Medical Colleges estimates that by 2030, the USA will likely experience a shortage of 40,800 to 104,900 physicians.

As of May 2017, the Health Resources and Services Administration has designated over 6,000 areas of the country as having a shortage of primary care providers. This creates an additional concern, according to the Association of American Medical Colleges, as the projected number of Americans over the age of 65 will grow 55% by 2030.

THE GULF COOPERATION COUNCIL

With rising global demand, there are neither sufficient healthcare services available to provide relief nor an adequate number of hospitals to meet the demand.

These issues are not unique to any one region. Throughout the world the provision of healthcare services and quality hospitals are under unbearable strain, exacerbated by a growing prevalence of lifestyle-related diseases; such as diabetes, cardiovascular ailments, cancer, psychiatric and musculoskeletal disorders.

Due to rapid urbanization and unhealthy lifestyles of a large number of the world's population, chronic diseases previously uncommon in many regions of the world are now on the rise. This large increase in medical problems, along with insufficient healthcare services available and the shortage of hospitals, has led to an exponential increase in the number of individuals traveling outside of their own countries for medical treatment.

For example, the increase in medical tourism from the Gulf Cooperation Council (GCC) countries to other countries has been extremely expensive for their member states. Saudi Arabia alone spent US\$50 billion for medical tourism for its citizens in 2013.

ASI HEALTHCARE SOLUTIONS

TOTAL HEALTHCARE

ASI has assembled a consortium of best-in-class international medical companies carefully selected to improve the quality of services, increase the number of medical facilities, and stem and reverse the flow of medical tourism.

- The benefits of our expertise are great. For example, cataloging DNA sequencing establishes a DNA database for individuals to help medical experts determine the best treatments for their patients; making hospitals pro-active rather than reactive and greatly reducing medical costs.
- At the same time the determining of an individual's metabolic rate greatly reduces the possibility of wrongly medicating patients. Incorrect medication is not only ineffective and costly, but can also prove fatal.
- Moreover, we can provide the latest in Stem Cell research to enhance the treatments provided to patients.
- ASI offers a complete turnkey solution for medical facilities and complexes - from individual management and staffing services, to complete 5-Star concierge hospitals providing citizens with state-of-the-art treatments wherever they are needed.
- Regardless of where we operate in the world, ASI has the capabilities to meet all of our clients' specific needs.

The following are but a few of the services we can provide:

- Dialysis
- Oncology
- Radiology
- Cardiology
- Pediatrics
- Telemedicine
- Genomics
- Metabolic Rates
- Stem Cell Research
- Rehabilitation
- Wound Management
- Podiatry
- Orthopedics
- Home Health
- Assisted Living
- Long-term Acute Care
- Acute and Post-acute Long-term Transitional Care
- Nurses Training
- Hospital Information Management System

Design • Construct • Equip • Staff
Enable Comprehensive Medical Services Operate • Manage



PILLAR 2
ENERGY

FUELING YOUR
COMMUNITY.
نزود مجتمعكم بالطاقة.

Customer care: 800 ENOC خدمة العملاء

FUTURE-READY TECHNOLOGY FOR YOUR ENERGY NEEDS

Bringing Real Solutions to Today's Energy Problems

Combating climate change and increasing energy efficiency are two major challenges facing the world today. Natural gas is considered by many to be a bridge fuel in the shift from coal to renewables, and it has been forecasted that gas will continue to be used in conjunction with sources of renewable energy in the decades to come.

Despite its great abundance, natural gas is a finite resource which requires special management to ensure its availability for future generations. Consumers must be more conscientious in using such resources. How can less natural gas be consumed to produce the same output? How can output be increased while keeping energy consumption constant?

Another challenge many governments face is designing efficiency indicators. Which sectors of the economy are energy-intensive, and how can these sectors be ranked and prioritized? If a problem can't be measured it can't be fixed.

Problem

Governments and national oil companies are being mandated to cease the flaring of gas. What can be done with gas from remote fields where pipelines are non-existent? Every year millions of dollars worth of natural gas are being wasted through flaring, not to mention the considerable amounts of greenhouse gases generated in the process.

Solution

One such solution is nano LNG. This is a modular 'plug-and-play' plant capable of processing gas at the wellhead with a minimum of 1 mscft/day at 15 MT of LNG/day.

The great advantage with this application is that processing can be done on site without the need for extended pipeline networks. The LNG is loaded into 40 ft cryo-tanks and trucked to the end-user where it is regasified. Accordingly, transporting gas to markets in the absence of a pipeline is known as a 'virtual pipeline'.

This solution is ideal for a small power plant (3-25 MW) that wishes to convert from diesel to a cleaner burning fuel such as natural gas. As demand grows, production can be easily ramped up by adding more liquefaction modules. Depending on the quality of gas, the butane and propane can be extracted and sold off separately as cooking gases. LPG is a cleaner alternative than coal or other types of solid fuels. Interestingly, current trends show that LNG is gradually replacing LPG for cooking.

Our activities

ASI delivers energy solutions to the global market.

While we have been primarily active in the Middle East and Africa - given the massive growth potential based on shortages in power generation and energy-related infrastructure - we are in the position to bring the same state-of-the-art facilities to your project wherever it is.

Accordingly, we specialize in 'plug-and-play' solutions which are generally more cost-effective and faster to deliver.

Natural Gas

We believe that natural gas is the future of energy - so we have developed our expertise in building 'virtual pipelines' for LNG on the one hand - and liquefaction, storage and distribution on the other. Whether it is flared gas or pipeline quality gas, we can deliver the required application.

Mobile Gas Stations

Our technology portfolio also includes our mobile gas stations which is a packaged turnkey solution for quickly ramping up a gas station network. Market trends show that gas stations are becoming multi-transactional sites, so fuel sales are not enough. The new model includes a convenience store, food & beverage outlet, car wash, tire and lube bay. It's more about selling hot drinks and sandwiches versus fuel.

Reducing CO₂

At ASI we are passionate about reducing CO₂ emissions and improving efficiency by sharing our knowledge and experience in flared gas monetization, LNG production and distribution, virtual pipelines, cost and pricing, demand analysis and energy efficiency indicators.

ASI ENERGY SOLUTIONS

Containerized Mobile Refueling Stations - 'Fueling Your Business'

- 'Plug-and-Play' design
- UL 142 approved for flammable liquids
- Double-wall tank construction
- Available in 20 ft and 40 ft units
- Fully integrated to reduce installation and commissioning cost
- Built-in overfill prevention and leakage detection

Modular Infrastructure for Oil and Gas - Building the Future

- Lightweight panels and steel beams.
- 3.5 hrs fire rating.
- Building rate of 30 m² per day.
- No heavy lifting equipment required.
- Applications:
 - Forecourt infrastructure;
 - Mining; and
 - Oilfield camps

Small-Scale LNG - For a Cleaner Tomorrow

- Nano LNG - ideal for monetizing flared or stranded gas from 1 mmscf per day
- Micro LNG - ideal for liquefying pipeline quality gas from 100,000 gallons per day
- Modular technology - cost effective and easy to install

Virtual Pipelines for LNG/CNG - Making Energy Accessible

- Effectively leverage the logistics network
- Service areas without physical pipelines
- Use intermodal tanks
- Replace diesel and 'dirty fuels'
- Stimulate expansion of industrialization
- Facilitate cleaner energy for power production and transportation

Techno-Economic Studies - From Concept to Reality

- Energy focused
- Bankable studies
- Assistance with funding

Energy Trading Advisory Services - Connecting Buyers and Sellers

- Future trends in energy
- Factors driving energy prices
- Manage supply and demand
- Facilitate buyers and sellers

Future-ready plug-and-play solutions that meet your regional and national energy needs.



PILLAR 3
CONSTRUCTION

FASTER, STRONGER, MORE ECONOMICAL & ENERGY EFFICIENT

ASI's consortium partners Well & Able (WAA) and their principals have executed more than 250 projects over a 26-year period. These have ranged from **elegant affordable housing to complex multi-floor structures and disaster shelters.**

Through the implementation of strategic market and industry-specific initiatives, our consortium partners have secured a pipeline of construction projects in the Middle East, Southeast Asia and Africa. WAA has the authority to operate independently in the USA and South America, allowing for a truly global footprint to be achieved.

Our consortium partners WAA and their principals' manufacturing plant situated outside Shanghai, China has been responsible for supplying more than 250 projects over a 26-year period. Their partnerships with a wide array of global companies allow us to address any and all structural, architectural aesthetic requirements that our clients desire.

Our strategic objective is to be a complete turnkey supplier of all construction requirements while still remaining very competitive. The Green Solutions® building technology, owing to its pre-engineered, modular and bespoke capabilities inherently delivers a quicker construction build time while maintaining and improving the structural integrity of completed structures due to its steel frame and patented panel design.

As our building solution is 95% recyclable, our resulting environmental footprint is unique in the construction industry. This capability has allowed for huge competitive advantages to be achieved in large project rollouts where traditional bulk services have always had a large cost contributing factor to the projects' timelines and ultimate project feasibility.

On account of the overall competitiveness, structural integrity, integration and adaptation to scale, WAA is extremely confident that our Green Solutions® building technology is a perfect fit for the global market. Our bespoke industry models allow for competitive alternative and integrated structural solutions to deliver a sustainable advantage for our clients.

ASI CONSTRUCTION SOLUTIONS

A COMPLETE PROJECT TURNKEY DELIVERY INTEGRATION MODEL

- Design and Architecture
- Bulk Services (partnership with local contracting entities)
- Logistics
- Green Solutions® Supply
- Security
- Facilitation Management
- Construction
- Project Management
- Sourcing, supply and installation of all structural internal product requirements
- FF& E Design and Supply
- Structure Façades
- Sourcing, supply and installation of the Green Integrated and Utilities Services System
- Sourcing, supply and installation of appliances

Our integration model delivers a sustainable competitive advantage because our partnerships with select companies allow a complete scope of delivery capability to be continually achieved.

The Pre-Fab Advantage

- Ecological and sustainable green and clean construction.
- Minimum pollution (noise and debris) and disturbances.
- Fast and dry construction. Fewer man hours for the total construction period.
- Minimum use of natural resources like formworks, cements and reinforced concrete.
- Steel structures have high structural flexibility to accommodate earthquakes and hurricanes.
- Minimum hoisting, heavy equipment and site welding are required.
- All materials are pre-manufactured in factories, facilitating site installation under most weather conditions.
- Masonry look-alike houses

WAA's partnerships with a wide array of global companies allows ASI to:

- Address any and all structural, architectural and aesthetic requirements clients desire;
- Be a complete turnkey supplier of all construction requirements while remaining competitive;
- Offer large-scale affordable housing; and
- Build shelters for natural disasters and emergencies.

Green Solutions® Technology Market Sectors:

- Residential (Free-standing House / High Rise Apartments / Luxury Villas)
- Hospitality (Hotels)
- Retail (Showrooms / Shopping Centers / Malls)
- Industrial (Factories / Warehousing / Processing Plants)
- Institutions (Hospitals / Universities / Schools)
- Office Blocks (High Rise)
- Facilitation Management (Workers' Accommodation)
- Other revenue-generating applications: Hydroponic farming (poultry, fish and organic vegetables)

Our building solutions are 95% recyclable, and our resulting environmental footprint is unique in the construction industry.



PILLAR 4
SECURITY

SECURING YOUR FUTURE

ASI provides client-oriented security solutions across the full range of security disciplines.

Through our consortium member CSD Global (CSDG), we offer an invaluable inception-to-completion service for all our clients in many different sectors. CSDG has advised on all aspects of 'Design, Build, and Operate' security systems for the construction and distribution sectors. All of our work is supervised by a Director or Associate to guarantee both quality assurance and the highest compliance standards throughout any project.

We believe that your organization's or project's security would be enhanced by a CSDG solution. From sourcing the highest quality equipment around the world, to statistical analysis of its performance after the installation, we provide uncompromising quality and exceptional value. We design, install and complete our work in a timely, proficient manner. We work closely with our clients to expand our horizons, push the boundaries of what is possible and help shape the future of security technology.

Our mission is clear: help a generation of companies and their personnel stay safe. We begin with an innovative approach to integrating design and technology - all for the purpose of helping you resolve your security concerns.



ASI SECURITY SOLUTIONS

SECURING YOUR FUTURE

Our consortium member CSDG uses unique international "Secure by Design" standards to underpin all its work.

We have developed a unique master security planning methodology which works with architects to build into the overall design all aspects of safety, security and crisis response measures. The methodology takes into consideration all the risks and provides an integrated footprint to deal with physical security, technical security, information security, human security and creates an integrated command and control environment.

- This integrated approach achieves substantial cost savings when measured against traditional "silo based" and "retro-fit" methods.
- CSDG will be able to project-manage the project choosing the most cost-effective equipment, technologies (including CCTV, Biometrics, Eye-scan, etc.) and help to build human capital, by employing, training and developing local people in the areas of security technologies and personnel.
- In many of the larger projects, security and safety are not normally included from the ground up and therefore not synergistic with Standard Operating Procedure (SOP). CSDG has experience in developing comprehensive SOPs using best international practices and meeting the local security regulations. We assist in documenting and implementing these procedures that include business continuity and emergency preparedness by working closely with government, law enforcement agencies and disaster relief organizations.
- In conjunction with federal and local law enforcement, we can provide due diligence, background checks and investigations on all aspects of any project.



RECOGNIZED ACCREDITATION

CSDG is now in its second year as an accredited service provider for the renowned Altius scheme. Altius provides a range of services that are designed to minimize the likelihood that your supply chain will put you at risk, increase your costs or waste your time.

YOUR PROJECT

For your construction and related project's security needs, we can offer the following:

- Consultancy for designing master security and safety planning (particularly useful to develop when the architectural drawings are available).
- Active support to choose the right and cost-effective physical security solutions, entry systems (up to biometric level), CCTV, Control Room, Alarms, fire and safety equipment.
- Project managers and specialist engineers to assist with installation and preparation of SOPs.
- Selection and training of private security.
- Ongoing operational support including investigations.

RECOGNIZED MEMBERSHIPS

- International Association for Counterterrorism and Security Professionals (IACSP)
- International Professional Security Association (IPSA)
- National Association for Healthcare Security (NAHS)
- ASIS International UK Chapter
- National Business Crime Solution (NBCS)

Through our consortium member CSDG, ASI offers an invaluable Inception-to-Completion Service to all our clients in many different sectors.

ASI:

- Sources the highest quality equipment from around the world;
- Conducts statistical analysis of its performance after installation;
- Provides uncompromising quality; and
- Delivers exceptional value.

We help a generation of companies and their personnel stay safe through an innovative approach to integrating design and technology.



PILLAR 5
EMERGENCY MEDICAL SERVICES

WHEN THEY NEED YOU MOST

ASI provides emergency medical services for the future, ensuring improved care and patient outcomes.

- Through our consortium member Empath, ASI offers a wide range of services:
- Design and Management of a model EMS system;
- Emergency Service System design, implementation, education and management;
- Tactical Law Enforcement training, providing executive security and tactical paramedics;
- Integration with local, state and federal resources (Armed Forces and National Guard) as needed to promote a full capability within the entire medical response and transportation systems;
- Disaster Management; and
- Physician Services, including Emergency Medicine, Disaster Medicine, Community Health and Mobile Integrated Healthcare.



ASI EMERGENCY MEDICAL SERVICES

Through design and management of a model EMS system, we ensure an adaptive, comprehensive, safe, flexible and efficient response for all patient transportation needs while delivering the highest levels of medical care.

We deploy an array of aircraft and vehicles tailored to the local mission and needs, capable of transporting patients safely and efficiently while delivering the highest standards of care.



PILLAR 6
AGRIBUSINESS

FARMING THE FUTURE

ASI's system delivers a sustainable and economically viable Aquaponics & Poultry Corporate Social Responsibility Model.

Our model is bespoke, relevant, scalable and sustainable, while providing for training and employment of additional local workers in the future.

Through ASI's dedicated consortium partners, we offer an integrated modular Aquaponics & Poultry model that:

- Delivers fresh fish, vegetables and poultry;
- Enables the building of farms anywhere there is a water supply nearby;
- Can expand farms to create 'multiple farms' at the same location to produce food and vegetables for entire cities, as well as the farm's workers;
- Offers Specific and Synergistic Integrated Services that compliment and assist in providing a superior quality product; and
- Combines the growth and supply of fish with the cultivation and supply of vegetables.

ASI AGRIBUSINESS

- Partners with specialist agricultural and aquaculture companies;
- Invests in local integrated aquaculture and hydroponic grow-out facilities through partnerships with local labor;
- Employs local labor and agricultural entities to be trained by relevant specialists to operate and eventually manage these facilities;
- Provides sustainable job creation;
- Creates benefits based on existing demand for vegetables, poultry and fish from existing mines and residential areas;
- Facilitates the growth and expansion of this demand base; and
- Provides additional grow-out facility investment and IP exchange, which can be increased to cater for growing demand.

These agricultural and aquaculture facilities will be continually monitored and audited to ensure their ongoing viability to produce high quality produce to meet the demand of the current and new markets.





PILLAR 7
WASTE MANAGEMENT

TURNING WASTE INTO WEALTH

ASI's consortium partners have fine-tuned the science of converting waste into valuable energy.

We have developed waste management, waste treatment, waste-to-energy, zero waste systems and waste-related businesses.

With more than 20 years of experience in waste management, our partners invest in, build and operate fully integrated enterprises.

ASI WASTE MANAGEMENT

We offer: Energy generation from waste products that can be sold back to cities • Waste Collection • Engineering • Solid Mixed Waste Sorting • Dry Waste Treatment • Organic Waste Treatment • Construction & Demolition • Waste Treatment Recycling • Decontamination Services for Polluted Industrial areas • Waste Co-incineration • Waste Incineration • Operations and Management.

From waste collection to the extraction of energy therefrom, we analyze and monitor every process to guarantee the maximum efficiency of fully integrated waste management solutions.

