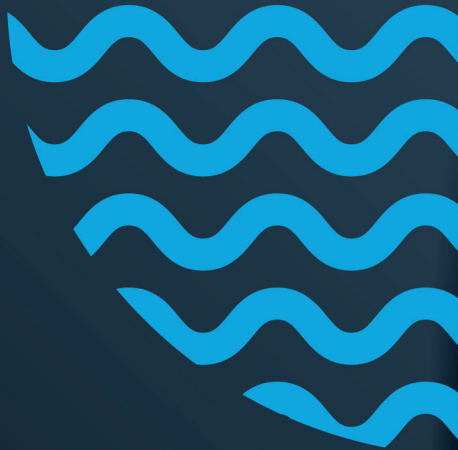# Achieving Efficient
Energy Solutions

GIZA
SYSTEMS
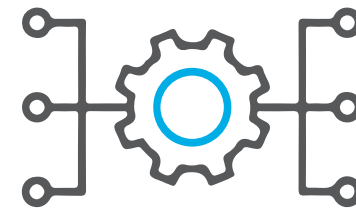we integrate

ARIA
TECHNOLOGIES

Who We Are

ARIA (Advanced Robotics for Industrial Automation) Technologies, a Giza Systems subsidiary, is a responsible and committed full service solutions provider and systems integrator delivering turnkey automation and energy optimization solutions to manufacturing companies across the MENA region. Partnering with world pioneers in robotics and automation, ARIA Technologies is a certified robot system integrator leading the digitalization of industrial technology.

What We Do

We work with our customers to create genuine and responsible value through offering state-of-the-art technologies for sustainable, efficient and resilient industries to support growth, development and the environment. Our services include automation systems, industrial IIoT and energy optimization.

Our services enable our customers to reduce costs; and increase productivity, flexibility and precision of day-to-day operations. Our core competencies include design and implementation of solutions with programmable controllers, information systems, drives, motion control and different robotic systems integration.

For our energy optimization solutions, we adopt the latest in cutting-edge technologies to reduce energy consumption, costs, and carbon footprint. Our team of experts offers customized re-tuning energy optimization and renewable energy integration solutions to transform infrastructures and support resilient sustainable industries.

Target Sectors

ARIA Technologies, as a subsidiary of Giza Systems, is uniquely positioned to fulfill the needs of the local and regional markets for energy audits, energy management systems and renewable energy integration. Our services and solutions support our customers in achieving environmental and financial benefits and cater to a number of sectors including:

- Industrial and Manufacturing Facilities
- Hotels and Resorts
- Hospitals and Health Facilities
- Commercial and Shopping Malls

We develop strategies that balance low-cost, high return, easy to implement operational improvements, as well as generate more capital intensive and long term solutions depending on the unique requirement of each client. Additionally, we help our customers navigate applicable governmental funding and incentives to enable them to implement their energy systems.

Offices
- Headquarter: 5th settlement, New Cairo, Egypt
- KSA branches: Riyadh, Al-Khobar and Jeddah
- UAE branch: Dubai

Quality

Giza Systems strives to integrate quality in all its processes to ensure adherence to the best standards and practices. Giza Systems has received the ISO 9001:2015, ISO 14001:2015, and OHSAS 18001:2007.

ARIA Energy Optimization Solutions

Typically, energy is one of the single most expensive outlays in running a facility. As a facility owner, you are looking to decrease your energy consumption while keeping or even increasing your production rates. But how do you achieve this balance and make it sustainable in the long-term?

ARIA Technologies provides environmentally sustainable solutions and services to optimize energy management such as:

- Energy audit (ISO 50002–compliant)
- Energy management systems (ISO 50001-compliant)
- Renewable energy integration
- IoT based platform for energy monitoring and optimization

To help facility owners reduce spending and improve overall productivity, our energy experts implement sound energy-management strategies to ensure delivery of best practices, reduction in operating costs, and enhancement of ROI. Our customized solutions combine technical, operational, and management approaches that are tailored to our customers' unique operations.

Our Energy Optimization Solutions offer:
- Clean and cost-effective energy management
- Decrease in energy consumption and operational costs
- Extension of lifetime of existing equipment
- Improvement of process efficiencies
- Reduction in carbon footprint

ARIA Energy Solutions

Energy Audits ISO 50002–compliant

Our ISO 50002–compliant energy auditing process creates savings-opportunity plans based on our clients' specifications. These assessments focus on the largest consuming energy components, processes or equipment to identify opportunities for the reduction of energy waste, improvement of energy efficiency, and optimization of energy supply.

Save up to 50% of energy costs and improve energy efficiency
ARIA professional team uses the latest thermal imaging technologies to reveal electric circuits malfunction, missing insulations, HVAC leakages, machines and circuit boards issues and other invisible problems that can lead to energy losses.
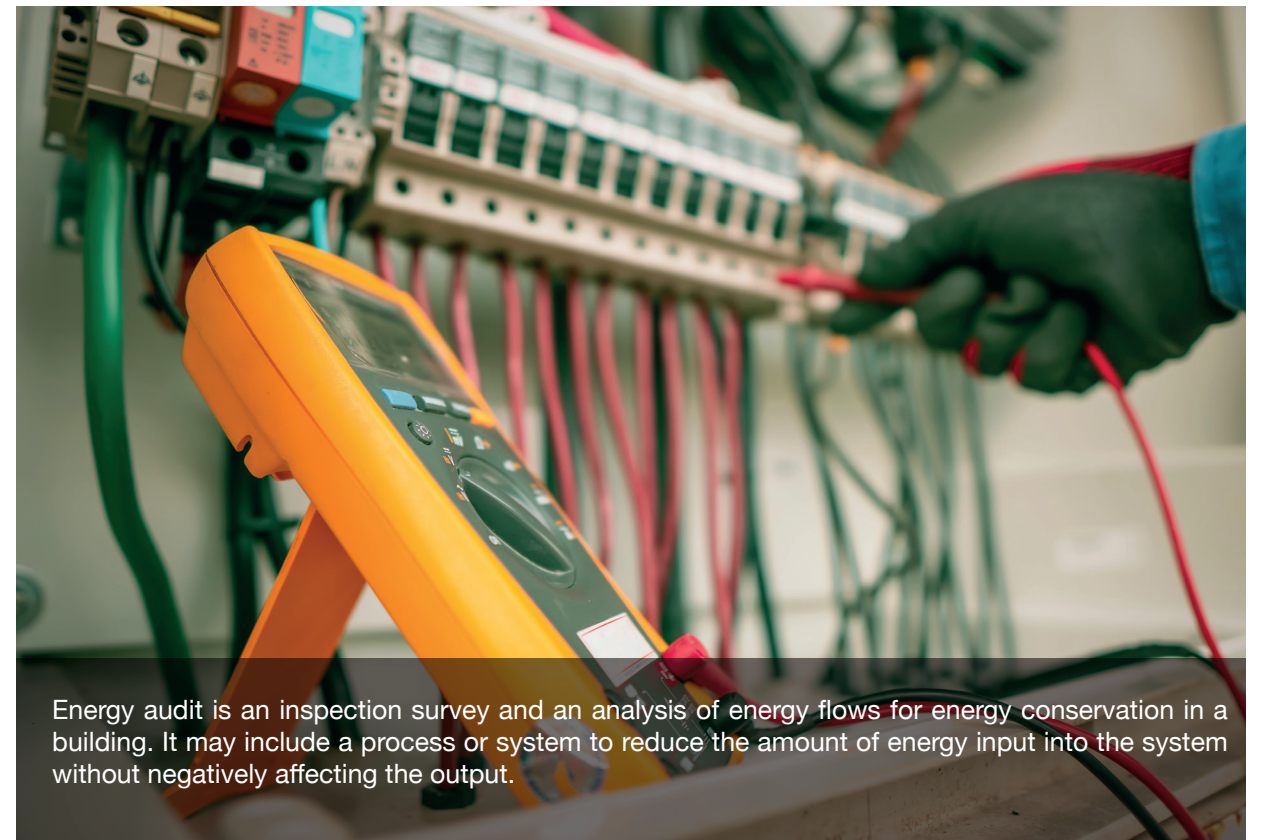

Improve your facility's energy consumption and better analyze its energy profile
Using the most advanced power analyzers, ARIA professionals can identify precisely all the electrical unbalances and inefficient parameters in the facility power system to optimize your profile.

Energy Management Strategies ISO 50001–compliant

Good energy-management strategies and plans are essential to achieving energy conservation and efficiency targets. Facility owners can take prescriptive actions, and identify and evaluate targets and KPIs to ensure they are realistic and effective. All strategies developed for our clients meet the international ISO 50001 requirements to develop a plan, identify and implement improvements, measure results, and then enable continuous improvement.

Energy audit is an inspection survey and an analysis of energy flows for energy conservation in a building. It may include a process or system to reduce the amount of energy input into the system without negatively affecting the output.

Renewable Energy Integration

Using commercial renewable energy sources, such as solar energy, to power some or all of your business can help lower your business energy costs over time. Additionally, it generates power that is free of harmful CO_2 emissions and other greenhouse gases.

With the overall global direction towards sustainability, there may never be a better time to invest in solar (or other sources of clean energy) to obtain the energy your business needs while paying less over the long-term.

As a sustainability-focused energy company, ARIA Technologies is dedicated to providing turnkey solar system solutions to generate inexpensive electricity for our clients and make their energy system more efficient.

Project Phases

1. Engineering & Feasibility Studies
   - Facility Surveying
   - Design and Simulation
   - Technical Specification
   - Financial Feasibility and TOI studies
   - Final Technical and Financial Plan

2. Project Management

3. Testing & Commissioning
   - System Testing and Commissioning
   - Targeted Design Performance Validation
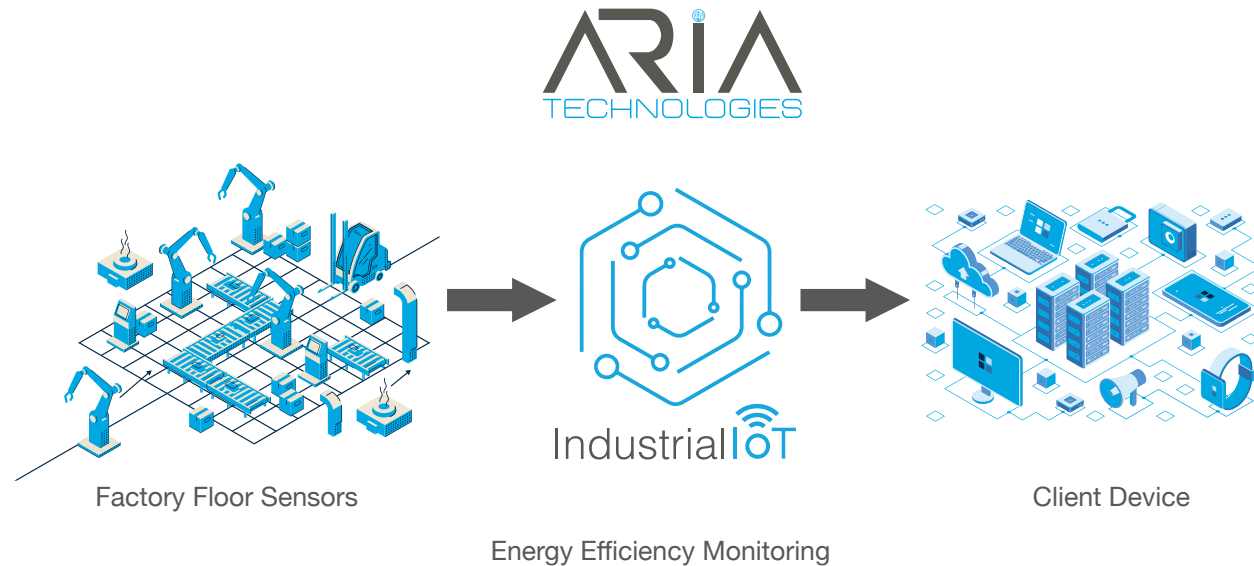   - Capacity Building and Training

IoT-based Platform

ARIA IoT-based platform is a cloud-based service that visualizes and optimizes your energy usage. After conducting the energy management system at your facility, the platform monitors and analyzes millions of data points each day and creates valuable insights. It enables you to analyze the performance and energy efficiency of your equipment at any time, and identify and prioritize corrective measures instantly.

The platform easily allows you to generate detailed follow-up reports that provide a breakdown of all equipment, buildings and energy systems connected to the platform. The reports visualize energy, performance, economy and CO2 savings. These reports can be used by those working in operations, finance and environmental projects to give them immediate access to real-time information allowing them to make the right decisions.

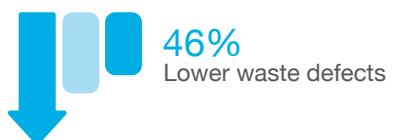Factory Floor Sensors   Client Device

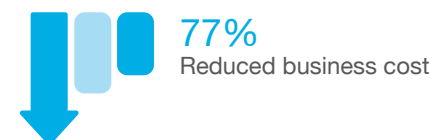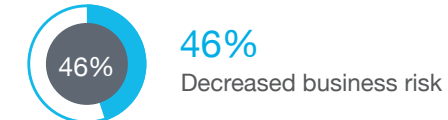Energy Efficiency Monitoring

Energy Opportunity

As a valuable client to ARIA Technologies, our energy experts can conduct a primary energy audit to help optimize your facility and enable you enjoy the followings benefits:

- Reduce energy consumption of all utilities
- Decrease operational costs
- Improve process efficiencies
- Prolong the life of existing equipment
- Reduce carbon footprint
- Become compliant with standards to achieve ISO 50001 certificate and gain international credibility

Environmental improvements

85%
85%
Regulatory and industry compliance

46%
Lower waste defects

Business improvements

46%
46%
Decreased business risk

77%
Reduced business cost

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Rosayes Business
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UAE

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