



Net Zero Dream, Now A Reality

How RSA Global has achieved Net Zero Emissions in their Facilities

September, 2022



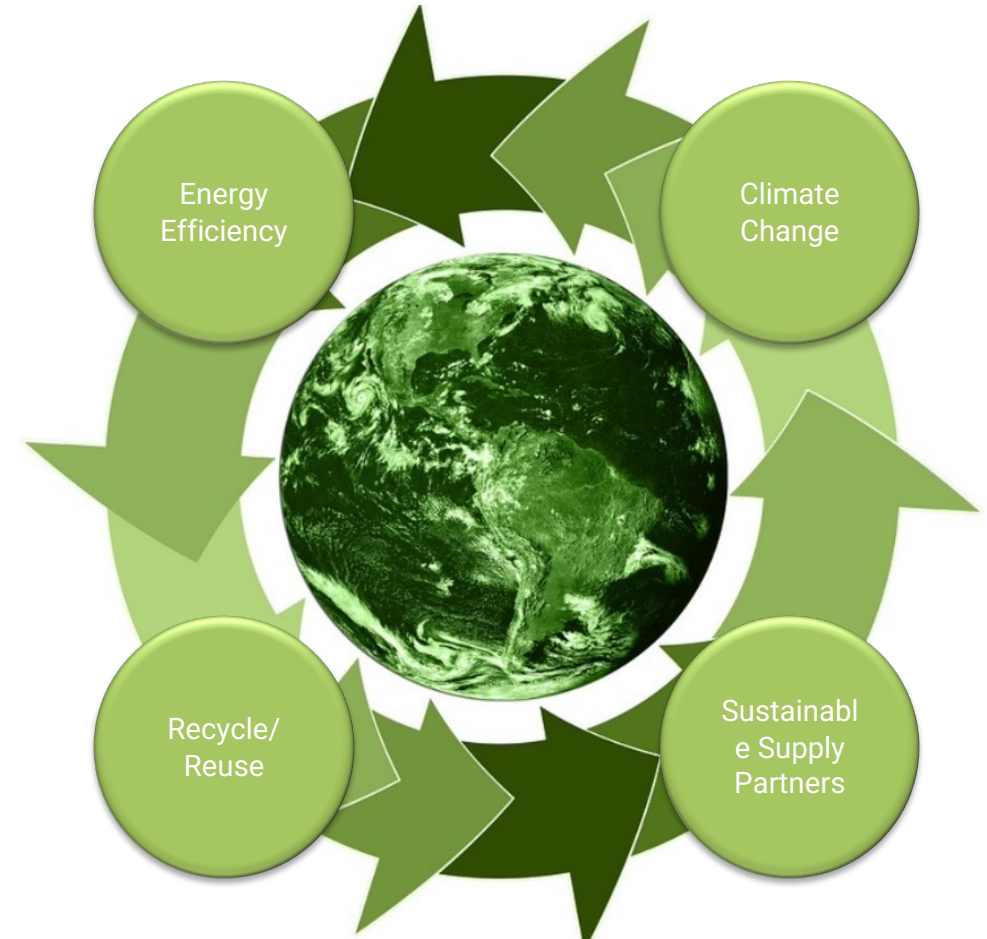
The Concept of Net Zero and RSA Global's Net Zero Goals

Net Zero and Net Positive (NZ/NP) strategies emphasize taking a systematic approach to reduce water, energy, and waste footprints in facilities.

Taka Solutions was appointed by RSA Global to:

- ✓ Review and identify the scope of energy consumption on the facility as Phase II of an ongoing Net Zero strategy
- ✓ To minimize the facility's energy consumption and complement the existing clean energy solutions which were implemented by Taka's sister concern SirajPower in Phase I

Some of RSA's Sustainability Pillars



Project Quick Facts



Contract Type

SSEPC

Shared Savings Energy Performance Contract (SSEPC):

- No performance or credit risk on RSA Global
- The facility improvements are provided by Taka Solutions at no initial cost to RSA Global
- O&M provided by Taka Solutions
- RSA Global has no upfront costs or lines of credit



Project Duration

6 years
 Audit: Q4 2019
 Implementation: March – July 2020
 Operations start: August 2020
 Project conclusion: July 2026



Facility Details

Location: DWC
 Sector: Commercial
 Building type: Warehouses & office
 Total Covered Area (m2): 56,603



Energy Efficiency Measures

- Package units' controls upgrade
- Indoor temperature management
- Warehouse & office lighting retrofit
- Common spaces lighting retrofit
- Chilled water network optimization and more

Project Phase (1/3): Design

Audit phase completed in Q4 2019



Data Collection

Collect historical utility bills, drawings and O&M information



Site Measurements

Measure key parameters of identified energy-intensive units as per the measurement plan



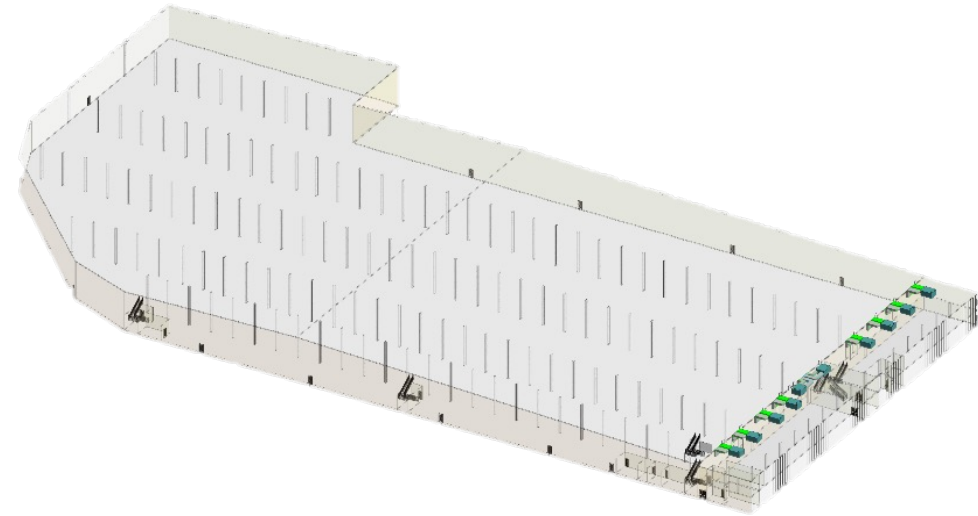
Analysis

Perform engineering analysis to quantify savings, associated costs and payback periods



Reporting

Compile data collected, measurements and analysis results into Energy Audit Report



BIM model of RSA Logistics warehouse facility



Equipment images taken during the Site Measurements process

Project Phase (2/3): Implementation

Implementation phase completed between March and July 2020



Detailed Design & Specification
 Technical and commercial evaluation for each EEM



Material Procurement
 Identify potential suppliers, negotiate contracts, regulatory compliance, etc.



Project & Implementation Management
 Create project management plan, monitor progress, measure risk, etc.



Commissioning
 Establish operation & maintenance guidelines, provide training & education



*Packaged unit controls
 upgrade
 Upgradation of existing fans to energy efficient EC fans*



Replaced existing fluorescent lights to energy efficient LED fixtures



Installed energy saving evaporative cooling technology for existing DX units



Project Phase (3/3): Operations



Energy Management

Regular reviews of the EEMs to ensure smooth operations



Measurement & Verification of the Savings

Regular monitoring of EEM performance and verification of forecast vs. actual savings to ensure accuracy



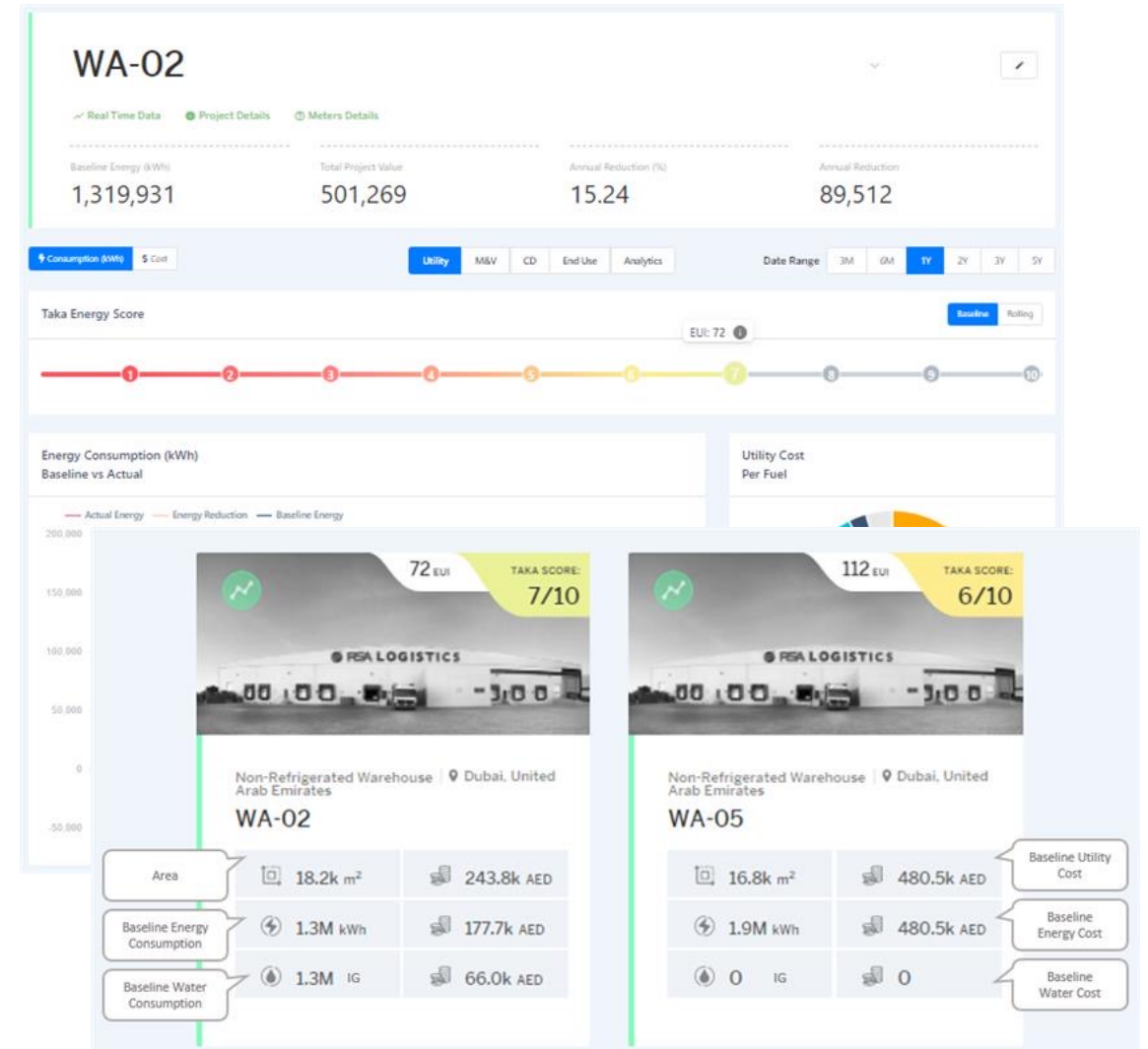
Energy Analysis & Forecasting

Analysis of energy consumption & forecasting based on trends to enable visibility and planning



Billing & Reporting

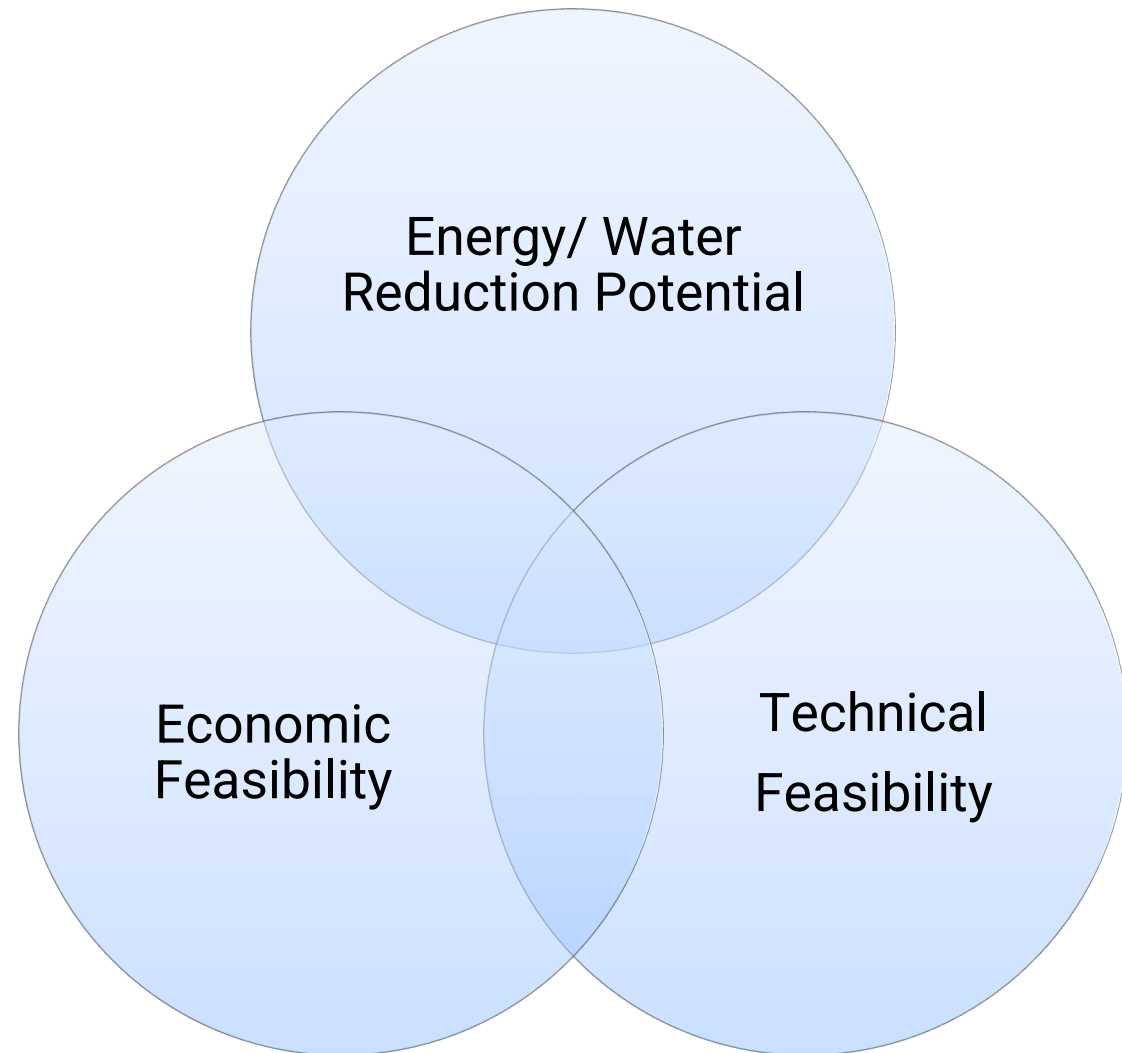
Regular client reporting on the quarterly and annual savings and billing



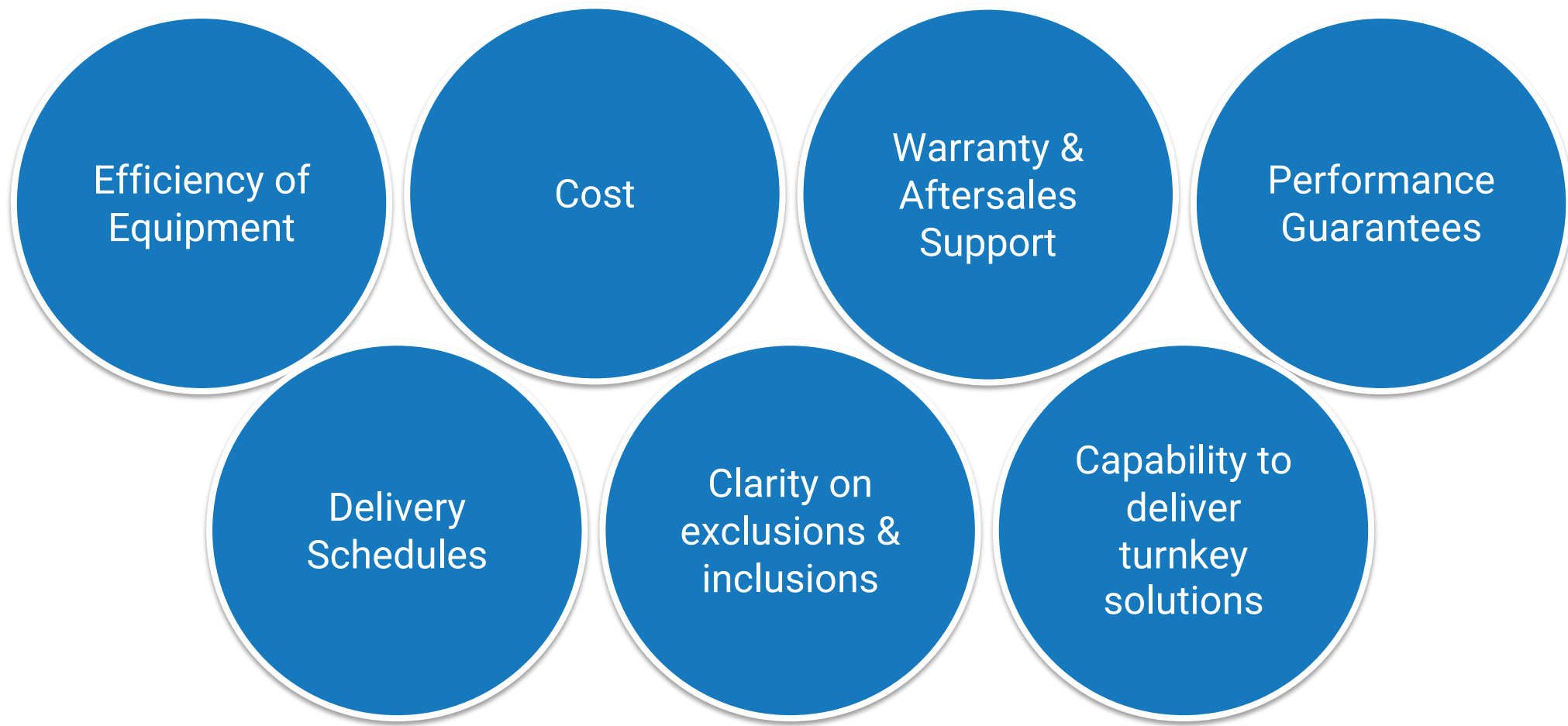
Criteria for Selection of Energy Efficiency Measures (EEMs)

EEMs Implemented at RSA Global:

1. Package units' controls upgrade
2. Indoor temperature management
3. Warehouse lighting retrofit
4. Office lighting retrofit
5. Common spaces lighting retrofit
6. Chilled water network optimization
7. DX units' evaporative cooling system



Criteria for Selection of Manufacturers & Suppliers



Project Achievements

Period: From January 2021 to May 2022

Only **1%** of energy consumption in 2021 was obtained from the grid!

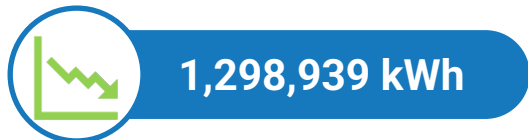
RSA'S NET ZERO DREAM IS NOW A REALITY



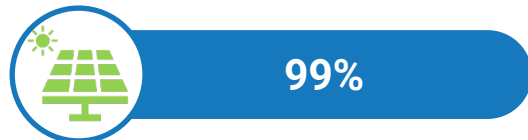
EEMs implemented



Energy reduction



Energy saved



Energy sourced from solar power



BEST NET-ZERO PROJECT OF THE YEAR 2022



MENA **RetrofitTech**
SUMMIT AND AWARDS
22 - 23 March 2022 | Dubai, UAE

WINNER


taka solutions
BEST NET-ZERO PROJECT OF THE YEAR 2022

UNDERTAKEN FOR RSA GLOBAL

Social Impact

Our achieved savings from 2021 – 2022 are equivalent to:

Greenhouse gas emissions from:




198
Passenger vehicles driven for one year

CO2 emissions from:



116
Homes' energy use for one year



111,976,351
Number of smartphones charged



Greenhouse gas emissions avoided by:

39,846
Trash bags of waste recycled instead of landfilled




Carbon sequestered by:

4,406,965
Square meters of forests in one year



15,221
Tree seedlings grown for 10 years



About Taka Solutions

A Green Coast Enterprises Group Company

Our services

Diversified engineering, energy, technology and finance services supporting efficiency

Pre-Design



Consulting



Code Compliance

Analyze



Energy Simulation



Building Information Modeling



Auditing

Design



Drawings



Specification

Implement



Financing



Procurement



Installation



Commissioning

Manage



Energy Management



Operation & Maintenance



Measurement & Verification



Analysis & Reporting

Technology

Engineering

Finance



Our expertise includes:

- Energy Auditing
- Building Information Modeling (BIM)
- Energy Simulation
- Smart & Green Building Consulting
- Cloud Analytics & IoT
- Remote Energy Monitoring & Control

Project Capabilities:

- Project Development
- Project Financing
- Project Construction
- Project Operations Management

90 Million kWh

Total portfolio savings

23%

Energy savings across our portfolio

AED 25 Million

In savings achieved

1000+

Facilities audited

Some of our Clients





Full Accreditation by RSB,
Government of Dubai



Full Accreditation by Reem,
RAK Municipality

Q&A



Corporate Member of the
EGBC



Corporate Member of the CEBC



Member of the Swiss
Business Council

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