

Alternative Energy solutions

Partial list

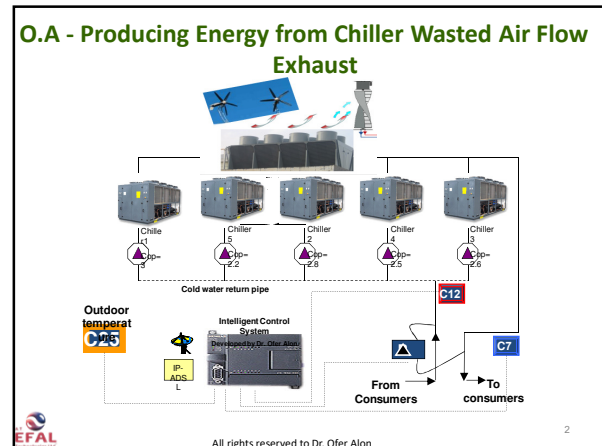
Developed by & Efal's team

Dr. Ofer Alon (O.A)
Strategic Expert on Renewable Energy, Efficiency & Climate Control

May 2020

EFAL א.ת. אפאל
TECHNOLOGIES LTD סוכנות טכנולוגית

1



O.A – Micro Air Turbine-Generators

Recovered Energy Generation Solution using horizontal or vertical Air Turbine-Generators, capturing some of the wasted airflow from building's/plant's Chiller's condenser exhaust fans.

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3

O.A – Micro Air Turbine-Generators

Conceptual

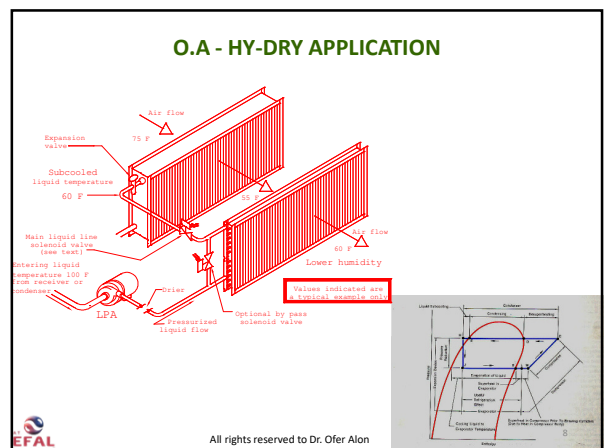
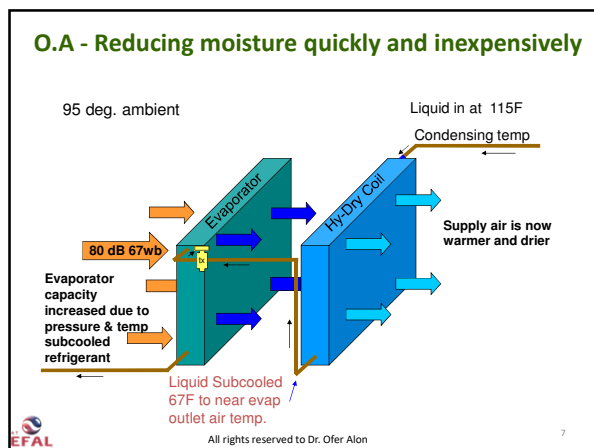
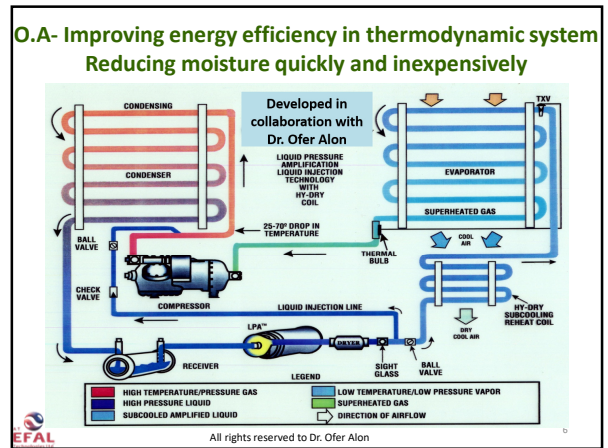
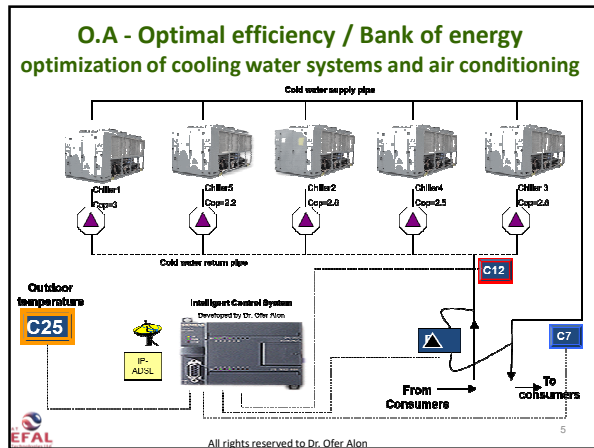
Wind Turbine Support Existing Chiller

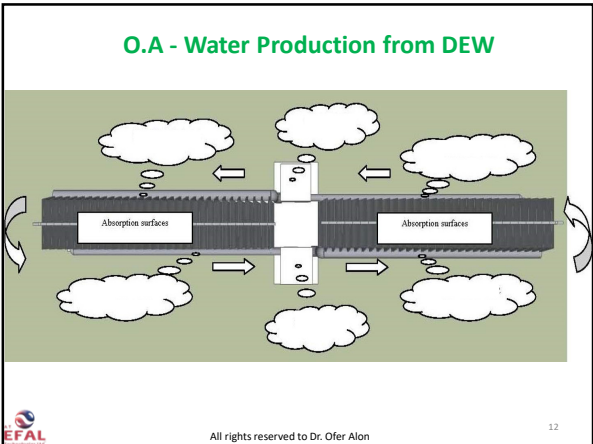
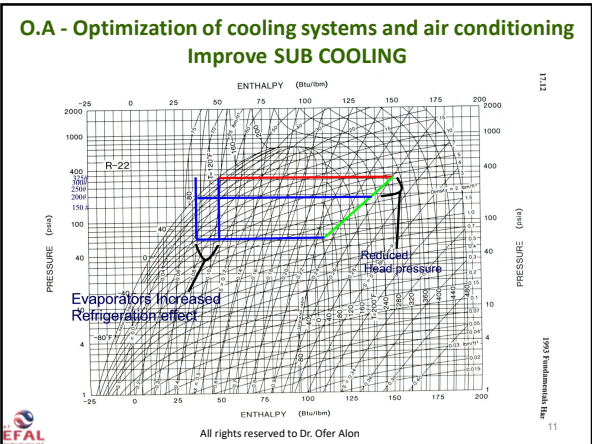
Custom made Savonius, Spiral Type Air Turbine

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4



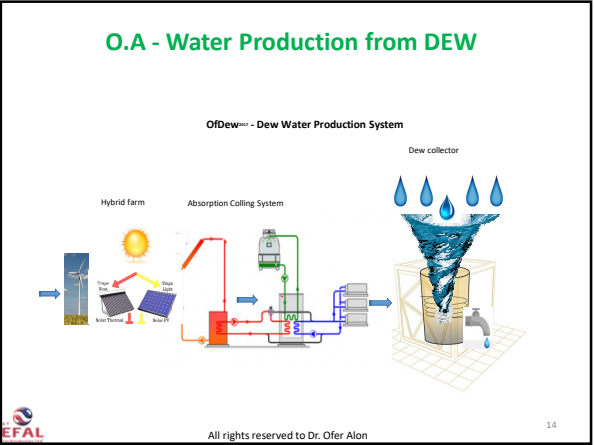


O.A - Water Production from DEW				
Comparison green technological feasibility and economic viability				
Market Segmentation	Distributed MeyTal™	Distributed Solar power (including government grants)	Distributed Wind Turbines power (including government grants - not available at the time)	Waste-to- Energy plant
Technological feasibility and economic viability Low / Medium / High				
Public Buildings	Yes	Yes	Yes	No
Hospitals industry	Yes	Yes	Yes	Yes
Healthcare facility	Yes	Yes	Yes	No
Educational Institutions	Yes	Yes	Yes	No
Correctional facilities	Yes	Yes	Yes	No
Government Offices	Yes	Yes	Yes	Yes
Military bases	Yes	Yes	Yes	Yes
Agricultural fields	Yes	Yes	Yes	No
Greenhouses	Yes	Yes	Yes	No
Farms	Yes	Yes	Yes	No
Airports	Yes	Yes	Yes	Yes
Roofs of residential buildings	Yes	Yes	Yes	No
Roofs of office buildings	Yes	Yes	Yes	No
Roofs of industrial buildings	Yes	Yes	Yes	No
Domestic market	Yes	Yes	Yes	No
Multi-unit Residential	Yes	Yes	Yes	No
Commercial market segment	Yes	Yes	Yes	No
Industrial market segment	Yes	Yes	Yes	Yes



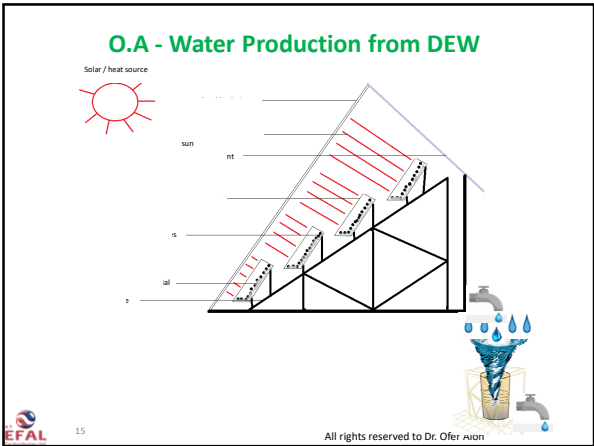
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13



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14



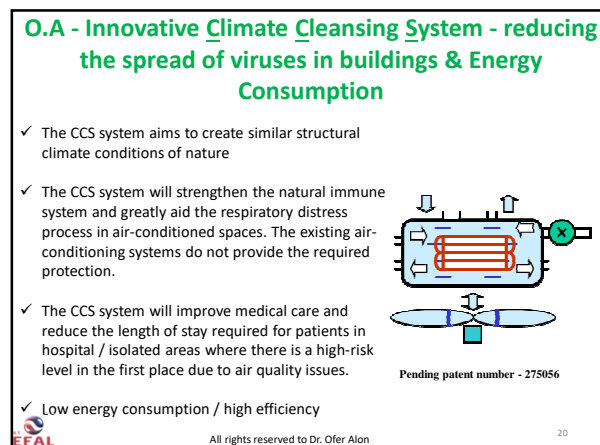
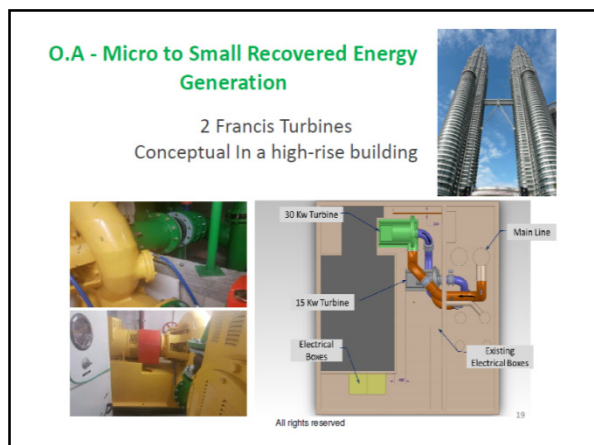
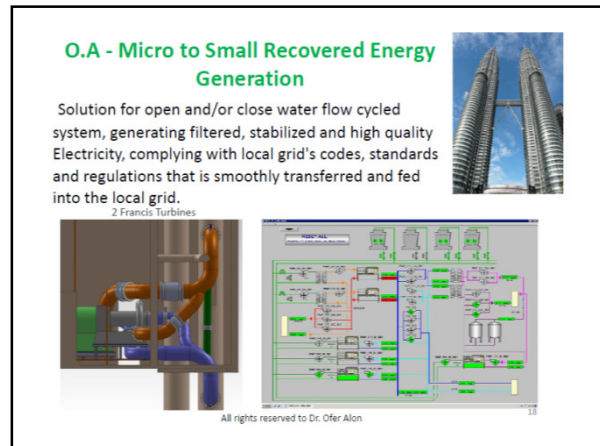
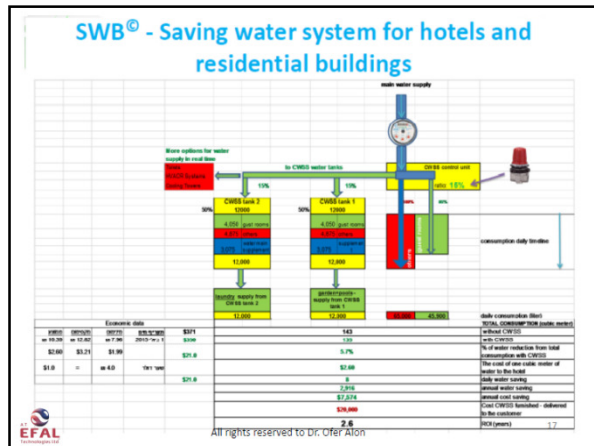
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15



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16



O.A - Multi-purpose air conditioner Optimal efficiency for heating and cooling

- ✓ Low energy consumption / high efficiency
- ✓ High quality of life in closed buildings
- ✓ Air Pollution Purifier
- ✓ Creates a healthy living environment
- ✓ Effective moisture reduction



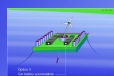
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21

EnerSea™ The Green Energy Raft

by Dr. Ofer Alon

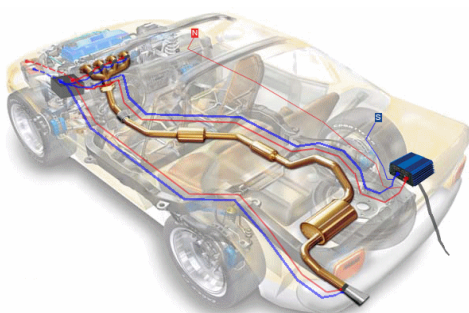
Free energy from the sea
wind, waves and flows



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22

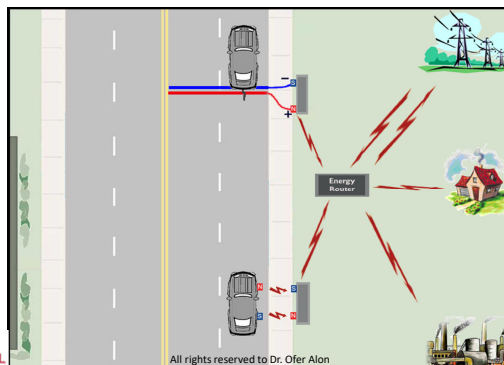
O.A - Carengy© system – Power production from motorized vehicles



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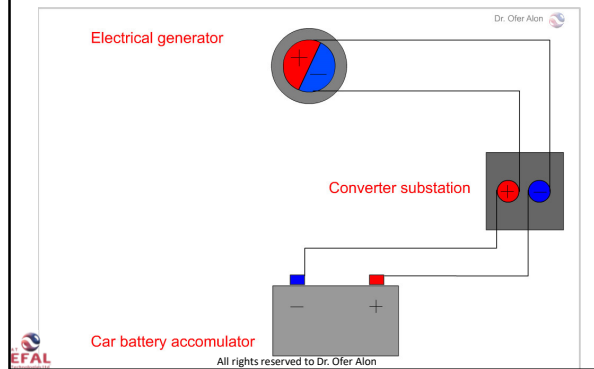
23

O.A - Carengy© system – Power production from motorized vehicles

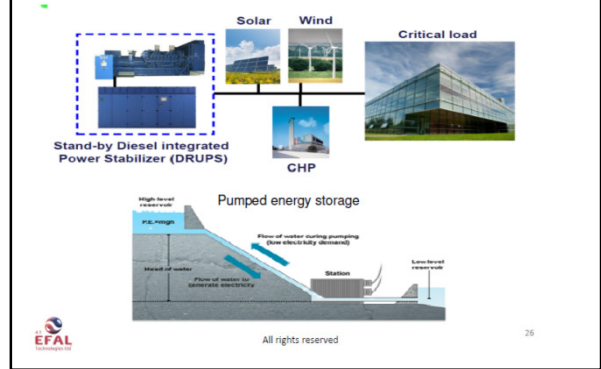


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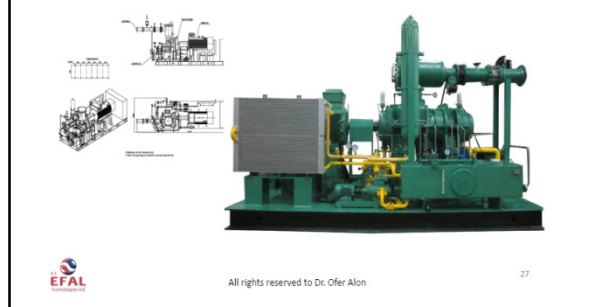
Carengy© system outcome solution



O.A - Hybrid power solution for remote islands



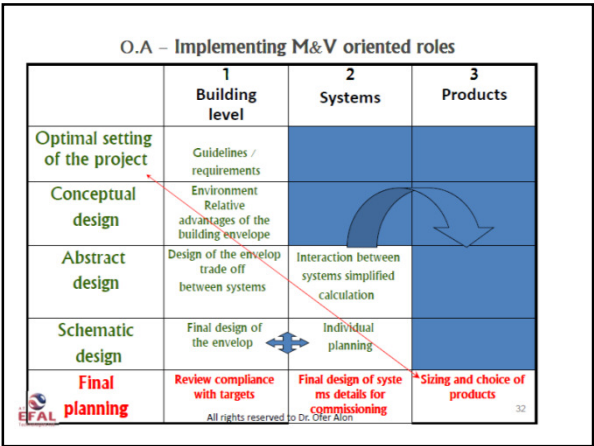
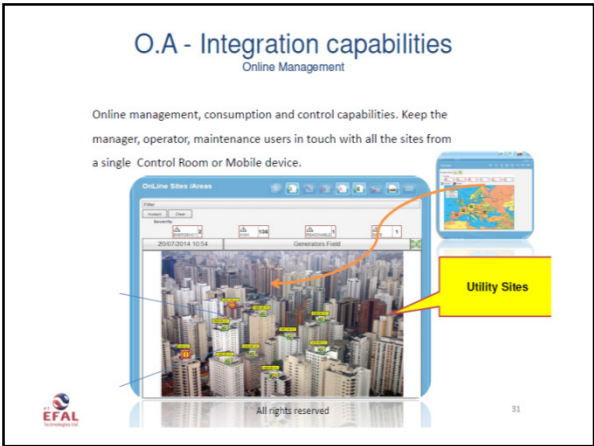
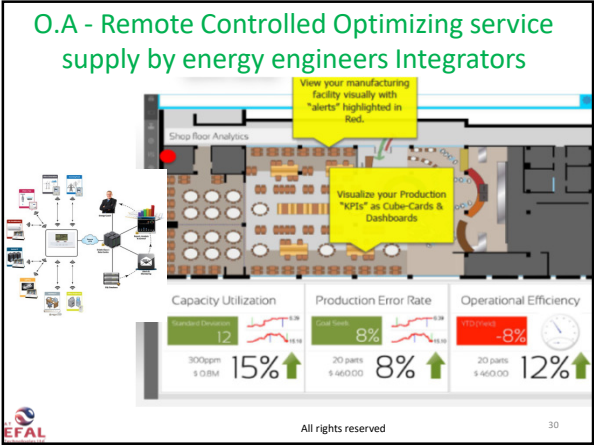
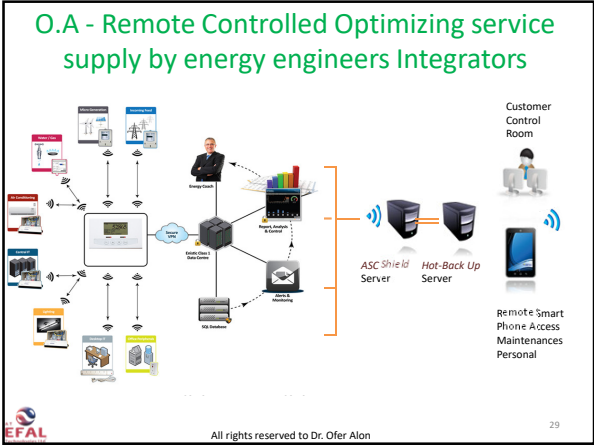
O.A - Residual steam power generation

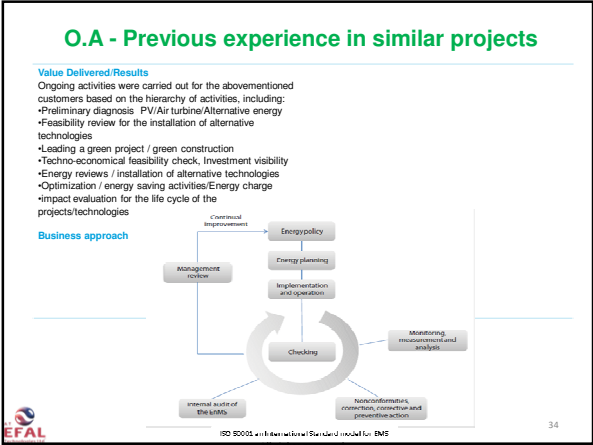
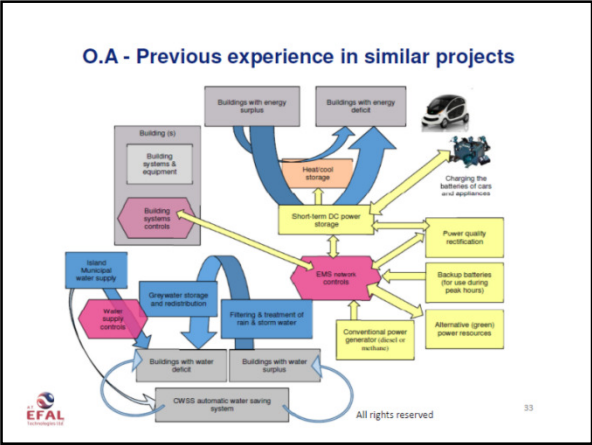


O.A - Residual steam power generation

- ✗ Simple, reliable affordable technology.
- ✗ Screw technology tested in millions of machines in last decades
- ✗ Minimum moving parts.
- ✗ Non-sensitive to droplets. No need in superheat. Works with wet steam
- ✗ High efficiency under various loads.
- ✗ Can work at unstable steam supply conditions.
- ✗ Can easily be coupled with asynchronous generator.







Dr. Ofer Alon - Previous experience

Overall Project/Proposal Summary
The proposed activities based on the accumulated experience of Dr. Ofer Alon leading Expert in Energy Efficiency Management specialist in the design, development and implementation of hundreds of projects implemented in energy efficiency and energy management.
Dr. Alon leads jointly with Deloitte the proposed activity.
We provide an umbrella of holistic activities, offering a one-stop-shop of various end-activities complementary to the required for upgrading and modifying the operative way of handling pertaining to the global warming dealing with environment (interior + external), quality of the air (interior + external), energy and acclimatization.
Dr. Alon lead an umbrella of activities including turnkey projects includes: Planning design, implementation, R&D Products and costume made energy solutions, Integrated technologies, monitoring power consumption efficiency and saving energy.
We offer comprehensive energy management services, by means of integrates three main motives (the target): **Energy Engineering, Architectural aspects of infrastructure and buildings and Business/Economic Leverage**

Challenge
To lead One Stop Shop in the energy arena In terms of energy efficiency potential (Engineering / R&D / M&V / Upgrading / Planning / Optimization / Energy Management / Retrofit).
To guide leading activities based on the clear need , as an effective outer-organizational platform (for business, public, and administrative agencies) that will analyzing and implement extensive activities in the green field (while leaning on and leveraging the existing momentum pertaining to the issue at hand).
To Incorporate the three main motives (Energy, Architectural & Business/Economic) activities factors into a mutual activity will yield significant advantages to the group's costumers and place a high standard to for the competitors.
The following is a partial customers' projects list Incorporated with GEG:
•Dead Sea Bromine Company – efficiency & green construction
•Elbe Company – green construction
•Ramat Hovav Bromine Company – efficiency & green construction
•Partner/Orange company – energy in portable sites
•The second authority / channel two - site communication efficiency
•Elgar Company – ABC project, green construction
•Shkun & Binuy Ltd. – energy & green construction feasibility
•Mital Hapays – Writing energy & green instructions manual
•Ministry of infrastructure – Writing energy management national standard (50001)
•Israeli Standards, Training Department – energy & green construction and Energy management courses

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Dr. Ofer Alon
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Dr. Alon is a recognized leader expert in energy optimization Focus on existing structures (upgrade/betterment - call-centers), energetic optimization, energy efficiency / energy savings, green buildings construction and alternative technologies.

Dr. Alon renowned expert in defining practical techno-economics energy efficiency and management methods for energy saving lead to full scale optimization.

Dr. Alon have vast experience in planning and R&D designated products and technologies for energetic optimization, he received 3 consecutive grants for developing new and improve existing technologies and 97 grants for energy optimization projects, auditing/measuring refinancing improvement projects and new technologies solutions execution (from the Chief Scientist of energy office).

Dr. Alon have practical vast experience in implementation alternative accompanying green technologies, regulatory and governance requirements (representing the energy sector on green buildings committee). In addition:

- Well establish in the business arena, governmental offices & standards Institute.
- executive member in the E.E.P committee leads environmental emissions reduction.
- Active member in the world's ISO Association, part of international expert team designated for defining practical objectives for energy management & service.
- Led new standards for energy efficiency in steam, hot water, pumps, compressed air, cogeneration systems (appointed by Standardization Institute & energy Ministry.
- Greenhouse gases examiner in cooperation with the Israel Standards Institute
- Training & professional enrichment: Legal arbitrator: Green building; PLC natural gas; Energy efficiency; Renewable energy; R&D alternative technologies; Energy management; Smart grid; Smart buildings; Green IT; Energy ranking buildings structures; Buildings energy; M&V procedures for energy savings



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**Thank you for
your attention**

We are curious and interested in helping you!

Dr. Ofer Alon
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37