

LUCEL *Guaranteed Operation – LUCEL Consulting*

Solar & Benefit International's Greenhouse projects powered by LUCEL, the world renowned Horticultural Experts, have the guaranteed production results specified by the initial Greenhouse design feasibility study. Cultivation production will be optimized according to the original customer's specified requirements and environmental criteria.

Turnkey Solutions and Technology

S&B offers the complete range of greenhouse solutions, provided in conjunction with the world's horticultural experts in Holland by Dutch specialists. Each greenhouse project is unique in its requirement and can only be realized by making an initial Pre-Study Design analysis taking into account all the variables including the needs of the community, the farmer or investor in relation to the greenhouse location, the available resources and the produce demand whether being by the community or the market. Upon a positive business plan and sustainability study, the project reaches the stage of commercial and financial evaluation by the customer.

Depending on various country assistance programs for such agricultural projects or by other international and European programs, a final financial proposal is prepared including the available grants or subsidies for presentation to the relevant authority and financing Banks.

Solar & Benefit Workflow Agreement

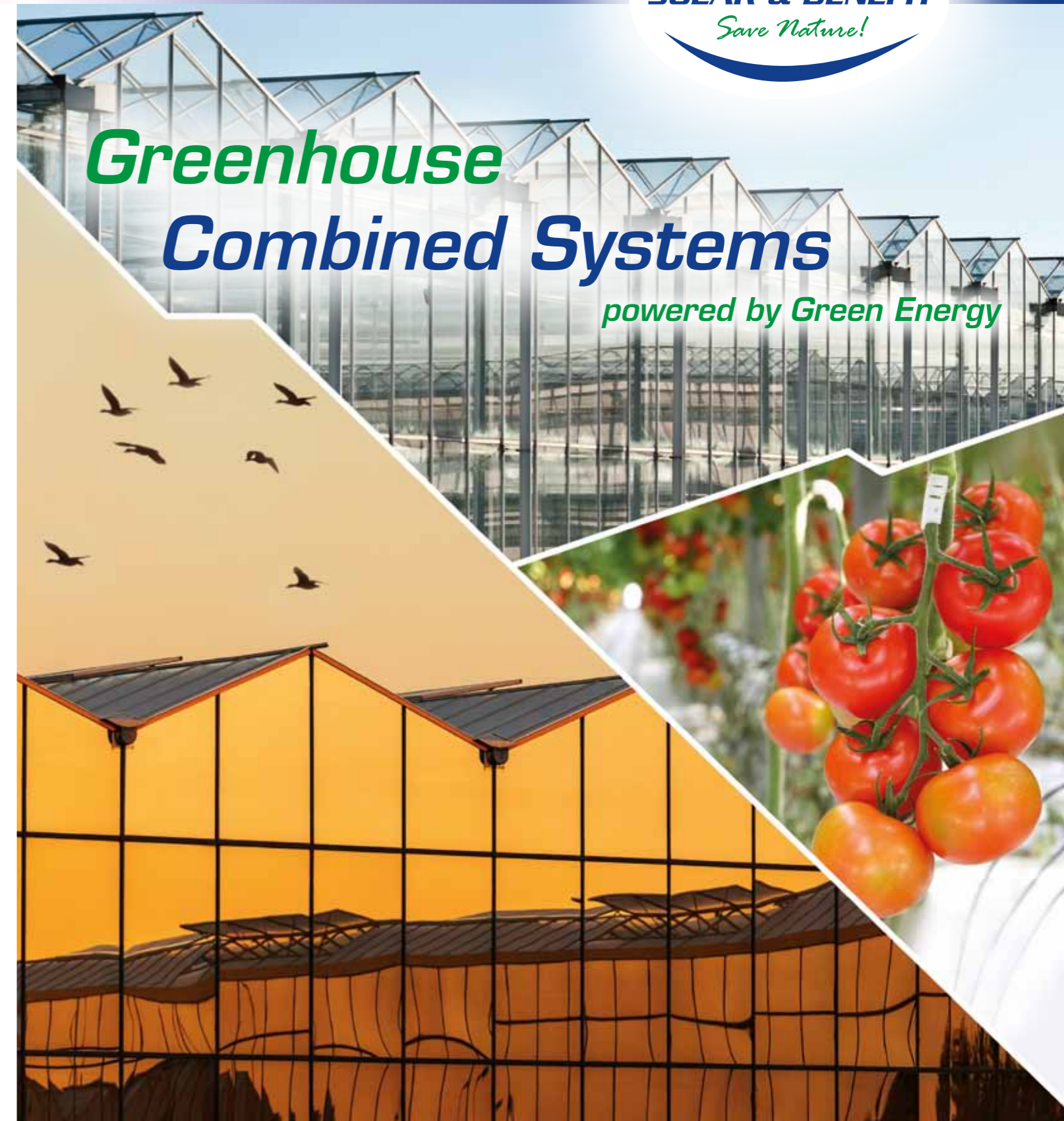
In line with the above workflow requirements, S&B undertakes the whole process from the start up to final project completion. The workflow may be summarized in the following steps:

- STEP 1** – Customer Request for Greenhouse Installation
 - Greenhouse Questionnaire, Pre-Check, Project Qualification and Customer Crop Distribution plan declaration regarding crop sales revenues
- STEP 2** – Customized Pre-Study Design, Indicative Price Offer and Business Plan – with an applicable fee of 1,5% of the projected project turnkey value, based on Customer Crop Distribution plan declaration regarding crop sales revenues
 - Complete Design and local Documentation for Permitting – with an applicable fee of 5% calculated on the actual project turnkey value
- STEP 3** – Construction and Commissioning



Operation and Maintenance

S&B will support the customer for the immediate operational lifetime even after the initial warranty period and commissioning, being present for his subsequent concerns, whether technical or commercial. Our company's Operation & Maintenance Division will continue to provide the necessary preventative and remedial maintenance for all Biogas subsystems and support the customer for all his technical and operational concerns.



Greenhouse Systems

In line with Solar & Benefit International's mission for Nature Preservation and Green Energy systems, S&B offers a wide range of greenhouse cultivation systems catering for the requirements of small to large scale systems in all regions including diverse locations from northern European to equatorial latitudes. In addition to offering a wide range of greenhouse facilities catering for differing requirements of various geographic locations, S&B also offers solutions which overcome local geographic deficiencies mostly in the area of water and energy, allowing the efficient production of today's much needed cultivated fruit and vegetables, serving the local communities or addressing commercial large scale production and investment.

By combining SBI's product and technologies portfolio, S&B is in a position to provide a multitude of solutions, catering for the needs of any community or commercial venture. Technologies and synergies which may be applied for the realization of demanding projects or real savings in the operational cost of large scale commercial projects may be achieved through the combination of advanced technology solutions and peripheral systems including:

Semi & Closed Greenhouse Benefits

- Fully closed or semi closed greenhouse structures
- Cultivation maximization studies and techniques
- Biological & Insect disease control
- Water management and conservation
- Energy management
- Eco friendly heating and cooling systems
- Geothermal & Biogas heating source utilization
- Solar Energy power systems for remote location operation
- Salt and Brackish water treatment application for irrigation



Additional synergies resulting in combination with greenhouse operation

- Photovoltaic Energy production through utilization of greenhouse roof space
- Small scale meat production from greenhouse substrates
- Biogas Energy production through utilization of vegetable and animal substrates
- Biological plant fertilizers and greenhouse powering and heating from the Biogas installation
- Utilization of excess electrical energy by the community or sale to the electrical utility



Depending on the specific community or commercial activity requirements, geographic location, available local resources and size of project, any or all of the above associated technologies and synergies may be combined to contribute to the maximization of fruit and vegetable production, additional side revenues from peripheral activities, utilization and recycling of the generated waste and minimization of the overall operating cost.

Greenhouse Structures

Built of lightweight aluminium profile beams and optical tempered glass covering for durability and functionality. Two options are offered or a combination of both, each approach with its own specific advantages:

- Long lifetime and maintenance free
- Economical
- Single or dual glazing
- Mostly applicable for temperate zones
- Use of locale's natural climatic conditions of temperature and rainfall for cultivation
- Apertures and forced air flow systems for ventilation
- Auxiliary low-cost heating and cooling systems to cater for temperature extremes
- Disease control through planned closed system operation

Semi-closed Greenhouse



- Long lifetime and maintenance free
- Price performance economy
- Dual glass glazing
- Extremely efficient for colder and warmer climate extremities
- Year round simulation of desired climatic conditions
- Lower operational heating and cooling costs
- Water conservation
- Controlled biological disease control through true closed system operation

Closed Greenhouse



- Combined PV Roof system for autonomous operation and commercial energy production
- Geothermal & Biogas heating solutions
- Underground heat storage reservoirs – summer collection and winter utilization
- Saltwater and Brackish Water treatment system for plant irrigation
- Refrigerated Storage facility
- Fruit and vegetable processing and packaging facility

Photovoltaic and Energy Solutions



- Growing media tables and slabs
- Water saving irrigation systems
- Greenhouse lighting systems
- Harvesting carts
- Partitions and screens

Greenhouse Accessories



Quality

All components used in the greenhouse construction and their supporting equipment and subsystems are predominantly of Dutch and German origin, being built to the highest standards of craftsmanship.

Save Nature!