Technology Request

* - Mandatory field View help on page 11

Your own ref: *	Deadline (DD/MM/YYYY): max. 1 year	
05 PL WPTS OCHK	10/09/2008	
Title*: Wind-solar-heat-hydrogen p	ower plant. The 4 Power Plant	
Abstract of the request: *		
Please give a brief description of the	technology need including a summary of the benefits	
sought. (max. 500 characters)		
A company from southestern Roman	ia specialising in Passive House and colateral tehnologies	
is looking for companies and research institutes that can provide it or other new energy		
efficiency products or tehnologies		
	· · · · · · · · · · · · · · · · · · ·	
Description of the request * http	o://www.wind-solar.info/	
(min. 200 characters):		
VVO	Worldwide first technology which uses four energy carriers at	
the	the same time	
•	• Wind	
•	Solar energy	
•	Ambient heat	
•	Hydrogen	
Cor	itinuous energy supply day and night.	
O	tshore plants in megawatt range	
•	Seawater desalinization	
•	Hydrogen production	
Hig	h efficient new generator system	
•	to be directly integrated into plant	
Ind	ependent energy storage systems	

Technical Specifications /	Special Characteristics	
Specific technical		
requirements of the request*		
(min. 50 characters):	4PP modules may be stacked horizontally	
	and vertically.	
	The 4 Power Plant differs in substantial characteri	stics from
	conventional wind-powered devices:	
	 simultaneous use of wind and solar energy compact plant 	in a
	 maximized wind and photovoltaic surfaces 	on smallest
	area	
	 modular and durable structure 	
	 small manufacturing costs 	
	small maintenance costs	
	high reliability in operation	· · ·
	• simple and temporally short assembly of the	ne plant
	without special establishment expenditure	
	• Use of an high-efficient, integrated new ge	nerator
	system	l conditions
	• albitially choice of location, no special local and building normits	
	• fast and economical disassembly (ex - trar	nsfer hv wav
	of security at bank for credit security span)	isici by way
	offshore plants within the megawatt range	with simple
	permanent change of station, in particular for hyd	Irogen
	production and as sea water desalination plant	
	 continuous power production by integrated 	storage
	technology	0
	 self-sustaining supply with heat and power 	⁻ for single
	family houses and small industrial facilities	
	no environmental impact	
Τe	echnology Keywords *	
Choose from the list	of Technology Keywords those which are r	nost
approp	riate to describe the technology.	
1. ELECTRONICS, IT AND TEL	ECOMMS (Level1)	
1.1. ELECTRONICS, MICROELEC	TRONICS (LEVEL2)	
1) Automation, Robotics C	ontrol Systems (Level3)	
2) Digital Systems, Digital	Representation	
3) Electronic circuits, com	ponents and equipment	
4) Electronic engineering		
5) Embedded Systems and	d Real Time Systems	
6) High Frequency Techno	logy, Microwaves	
7) Magnetic and supercone	ductory materials/devices	
8) Microengineering		
9) Micromachining		
10) Nanotechnologies rela	ted to electronics and microelectronics	
11) Optical Networks and	Systems	
12) Peripherals Technolog	ies (Mass Data Storage, Display Technologies)	
related to electronics and	microelectronics	
13) Printed circuits and int	tegrated circuits	
14) Quantum Informatics		
15) Semiconductors		

16) Smart cards and access systems	
17) Environmental and Biometrics Sensors, Actuators	
1.2. INFORMATION PROCESSING, INFORMATION SYSTEM, WORKFLOW MANAGEMENT	
1) Advanced Systems Architecture	
2) Archivistics/Documentation/Technical Documentation	
3) Artificial Intelligence (AI)	
4) Computer Games	
5) Computer Hardware	
6) Computer Software	
7) Computer Technology/Graphics, Meta Computing	
8) Data Processing / Data Interchange, Middleware	
9) Data Protection, Storage Technology, Cryptography, Data Security	
10) Databases, Database Management, Data Mining	
11) Electronic Commerce, Electronic Payment	
12) Imaging, Image Processing, Pattern Recognition	
13) Information Technology/Informatics	
14) Internet Technologies/Communication (Wireless, Wi-Fi, Bluetooth)	
15) Knowledge Management, Process Management	
16) Simulation	
17) Speech Processing/Technology	
18) User Interfaces Usability	
19) Electronic Signature	
20) Building Automation Software	
20) Building Automation Software	
21) Kentole Control	
1 2 IT AND TELEMATICS ADDITIONS	
1) Applications for Health	
2) Applications for Tourism	
2) Applications for Transport and Logistics	
4) ASD Application Sorvice Providing	
4) ASF Application Service Froviding	
5) E-GOVENIMENT	
Systems	
7) GIS Geographical Information Systems	
8) CRM - Customer relationship Management	
9) Quality Management System	
10) Maintenance Management System	
11) Operation Planning and Scheduler System	
12) Didactic System	
13) ICM - Internet Content Management	
14) Analysis Risk Management	
15) Work Hygiene and Safety Management	
1.4. MULTIMEDIA	
1) Cultural Heritage	
2) F-Learning	
3) E-Publishing Digital Content	
4) Human Language Technologies	
5) Information Filtering, Semantics, Statistics	
6) Visualisation, Virtual Reality	
1.5 TELECOMMUNICATIONS NETWORKING	
1) Audiovisual Equipment and Communication	
2) Broadband Technologies	

3) Mobile Communications	
4) Narrow Band Technologies	
5) Network Technology, Network Security	
6) Radar	
7) Research Networking, GRID	
8) SatelliteTechnology/Systems/Positioning/Communication in GPS –	
Global Positioning System	
9) Signal Processing	
10) Hi-Fi	
11) Description to Sound and Music Computing	
12) Description Image/Video Computing	
13) Communications Protocols, Interoperability	
14) Residential Gateaway	
2. INDUSTRIAL MANUFACTURING, MATERIAL AND TRANSPORT	
2.1. DESIGN AND MODELLING / PROTOTYPES	
2.2. INDUSTRIAL MANUFACTURE	
1) Cleaning (sandblasting, brushing)	
2) Coatings	
3) Drying	
4) Frosion Removal (spark erosion flame cutting laser/plasma cutting	
electrochemical erosion, wateriet cutting)	_
5) Forming (rolling, forging, pressing, drawing)	
6) Hardening, heat treatment	
7) Joining techniques (riveting, screw driving, gluing)	
8) Jointing (soldering, welding, sticking)	
9) Machine Tools	
10) Machining (turning, drilling, moulding, milling, planning, cutting)	
11) Machining, fine (grinding, lapping)	
12) Mixing (powder, etc.), separation (sorting, filtering)	
13) Moulding, injection moulding, extrusion, sintering	
14) Surface treatment (painting, galvano, polishing, CVD, PVD)	
2.3. PROCESS CONTROL AND LOGISTICS	
2.4. PLANT DESIGN AND MAINTENANCE	
2.5. Packaging / Handling	
1) Foil, fils	
2) Laminate	
3) Packaging for machines	
4) Packaging for materials	
5) Plastic bags	
2.6. CONSTRUCTION TECHNOLOGY	\square
1) Building Materials, Components and Methods	\square
2) Civil engineering	\square
3) Construction Equipment	
4) Fire Resistance/Safety	
5) Mechanical Engineering, Hydraulics, Vibration and Acoustic Engineering	
related to construction technology	
6) Pipeline Technology	
7) Pulp Technology related to construction technology	
8) Sensory/Multisensory Technology, Instrumentation related to	
construction technology	<u> </u>
9) Simulation, Simulation Engineering	

10) Sound Insulation	\boxtimes
11) Vacuum / High Vacuum Technology	\boxtimes
12) Gas Safety	\square
13) Security	\boxtimes
2.7. MATERIALS TECHNOLOGY	\boxtimes
1) Adhesives	\square
2) Building materials	\square
3) Ceramic Materials and Powders	\square
4) Colours and varnish	\square
5) Composite materials	\square
6) Fine Chemicals, Dyes and Inks	\square
7) Glass	\boxtimes
8) Iron and Steel, Steelworks	\square
9) Materials Handling Technology (solids, fluids, gases)	\boxtimes
10) Metals and Alloys	\boxtimes
11) Non-ferrous Metals	\square
12) Optical Materials	\boxtimes
13) Paper technology	\boxtimes
14) Plastics, Polymers	\square
15) Properties of Materials, Corrosion/Degradation	\boxtimes
16) Rubber	\boxtimes
17) Stone	\boxtimes
18) Advanced Textile Materials	\boxtimes
2.8. TRANSPORT INFRASTRUCTURE	
1) Air Transport	
2) Intermodal Transport	
3) Logistics	
4) Railway Transport	
5) Road Transport	
6) Traffic Engineering / Control Systems	
7) Transhipment Systems	
8) Water Transport	
2.9. TRANSPORT AND SHIPPING TECHNOLOGIES	
1) Design of Vehicles	
2) Hybrid and Electric Vehicles	
3) Railway Vehicles	
4) Road Vehicles	
5) Shipbuilding	
6) Traction/Propulsion Systems	
2.10. AEROSPACE TECHNOLOGY	
1) Aeronautical technology / Avionics	
2) Aircraft	
3) Helicopter	
4) Satellite Navigation Systems	
5) Space Exploration and Technology	
3. OTHER INDUSTRIAL TECHNOLOGIES	
3.1. OTHER INDUSTRIAL TECHNOLOGIES	
1) Cleaning Technology	<u> </u>
3.2. PROCESS PLANT ENGINEERING	
3.3. APPARATUS ENGINEERING	
3.4. CHEMICAL TECHNOLOGY AND ENGINEERING	

1) Agro chemicals	
2) Anorganic Substances	
3) Colours, dyes related to Chemical Technology and engineering	
4) Electrical Engineering and Technology / Electrical Equipment	
5) Man made fibres	
6) Organic Substances	
7) Pharmaceutics	
8) Plastics and Rubber related to Chemical Technology and engineering	
9) Soaps, detergents	
10) Special chemicals, intermediates	
11) Care, Hygiene, Beauty	
3.5. TEXTILES TECHNOLOGY	
1) Component adhesives for strengthening of seam	
2) Dry filling related to Textiles Technology	
3) Dyeing related to Textiles Technology	
4) Finisher related to Textiles Technology	
5) Non weaving related to Textiles Technology	
6) Solvent based glues for strengthening of edges and seam	
7) Thermoplastic textile fibres	
8) Weaving related to Textiles Technology	
9) Woven technical textiles for industrial applications	
3.6. FOOTWEAR / LEATHER TECHNOLOGY	
1) Dry filling related to Footwear / Leather Technology	
2) Dyes related to Footwear / Leather Technology	
3) Tanned leather process related to Footwear / Leather Technology	
3.7. Sound Engineering/Technology	
3.8. MINING TECHNOLOGIES	
3.9. PRINTING	
1) Flexography	
2) Printed Reel Material	
3.10. HOUSEHOLD GOODS & APPLIANCES	
4. ENERGY	
4.1. ENERGY STORAGE AND TRANSPORT	\square
1) Heat storage	\square
2) Heat transport and supply, district heating	\square
3) Storage of electricity, batteries	\square
4) Transmission of electricity	\square
5) Transport and storage of gas and liquid fuels	\square
6) Transport and storage of hydrogen	\square
4.2. ENERGY PRODUCTION, TRANSMISSION AND CONVERSION	\square
1) Fuel cell, hydrogen production	\square
2) Fuel liguefaction, gasification	\square
3) Furnace technology, construction of heating boilers	\square
4) Generators, electric engines and power converters	\square
5) Heat exchangers	\square
6) Heat pump, cooling technologies	\square
7) Heating, ventilation	\square
8) Turbines, fluid machinery, reciprocating engines, combined heat and	\square
power	
4.3. FOSSIL ENERGY SOURCES	
1) Coal and Hydrocarbons	
2) Gaseous fossil fuel	

3) Solid fossil fuel	
4) Liquid fossil fuel	
4.4. Nuclear Fission / Nuclear Fusion	
4.5. RENEWABLE SOURCES OF ENERGY	\square
1) Gaseous biomass	\square
2) Geothermal Energy	\square
3) Hydropower	\square
4) Liguid biomass	
5) Photovoltaics	
6) Solar/Thermal energy	\square
7) Solid biomass	
8) Unconventional and Alternative Energies	
9) Waste incineration	\square
10) Wind energy	\square
4.6. RATIONAL USE OF ENERGY	
1) Energy management	
2) Lighting illumination	
3) Process optimisation waste heat utilisation	\square
4) Thermal insulation, energy efficiency in buildings	
4 7 OTHER ENERGY TOPICS	
1) Compustion Flames	
2) Fuel Technology	
5 PHYSICAL AND EXACT SCIENCES	
5.1 ASTRONOMY	
1) Analytical Chemistry	
2) Computational Chemistry and Modelling	
3) Inorganic Chemistry	
4) Organic Chemistry	
5) Petrochemistry Petroleum Engineering	
5.3. FARTH SCIENCES	
1) Geology Geological Engineering Geotechnics	
2) Oceanography	
3) Tectonics Seismology	
5.4 MATHEMATICS STATISTICS	
1) Algorithms and Complexity	
2) Mathematical modelling	
3) Statistical Analysis	
5.5. METEOROLOGY / CLIMATOLOGY	
1) Biosensor	
2) Moisture sensors	
3) Temperature monitoring	
5.6 Physics	
1) Acoustics	
2) Astrophysics / Cosmology	
3) Laser Technology	
4) Nuclear Physics	
5) Physics of Fluids	
6) Sensors/Multisensor Technology Instrumentation	
7) Solid state physics	
8) Thermodynamics	
oy mernodynamics	

9) Vibration and Acoustic engineering	
10) Optics	
5.7. MECHANICAL ENGINEERING	
1) Micro-Mechanics	
5.8. Hydraulics	
5.9. SEPARATION TECHNOLOGIES	
1) Filtration and Membrane Processes	
2) Extraction	
3) Adsorption	
4) Distillation	
5) Sublimation	
6) Other Processes	
5.10. MICRO- AND NANOTECHNOLOGY RELATED TO PHYSICAL AND EXACT SCIENCES	
6. BIOLOGICAL SCIENCES	
6.1. Medicine, Human Health	
1) Biostatistics, Epidemiology	
2) Care and Health Services	
3) Clinical Research, Trials	
4) Cytology, Cancerology, Oncology	
5) Dentistry / Odontology, Stomatology	
6) Diagnostics, Diagnosis	
7) Diseases	
8) Environmental Medicine, Social Medicine, Sports Medicine	
9) Gene - DNA Therapy	
10) Gerontology and Geriatrics	
11) Heart and blood circulation illnesses	
12) Electromedical and Medical Equipment	
13) Medical Research	
14) Medical Technology / Biomedical Engineering	
15) Neurology, Brain Research	
16) Pharmaceutical Products / Drugs	
17) Physiology	
18) Surgery	
19) Virus, Virology / Antiobiotics / Bacteriology	
20) Laboratory Equipment	
21) Rescue and Emergency Equipment	
22) Physiotherapy, Orthopaedic Technology	
23) Single Use Products and Consumer Goods	
24) Medical Textiles	
25) Medical Furniture	
26) Medical Biomaterials	
6.2. BIOLOGY / BIOTECHNOLOGY	
1) Biochemistry / Biophysics	
2) Cellular and Molecular Biology	
3) Enzymology / Protein Engineering / Fermentation	
4) Genetic Engineering	
5) In vitro Testing, Trials	
6) Microbiology	
7) Molecular design	
8) Toxicology	
6.3. GENOME RESEARCH	

1) Bioinformatics	
2) Gene Expression, Proteom Research	
3) Population genetics	
6.4. MICRO- AND NANOTECHNOLOGY RELATED TO BIOLOGICAL SCIENCES	
7. AGRICULTURE AND MARINE RESOURCES	
7.1. Agriculture	
1) Agriculture Machinery / Technology	
2) Animal Production / Husbandry	
3) Biocontrol	
4) Crop Production	
5) Horticulture	
6) Pesticides	
7) Precision agriculture	
8) Seed coating	
9) Veterinary Medicine	
7.2. SYLVICULTURE, FORESTRY, FOREST TECHNOLOGY	
1) Forest technology	
2) Paper Technology	
3) Pulp Technology	
4) Sylviculture, Forestry	
5) Wood Products	
7.3. RESOURCES OF THE SEA, FISHERIES	
1) Aquaculture	
2) Fish / Fisheries / Fishing Technology	
3) Marine Science	
8. AGROFOOD INDUSTRY	
8.1. TECHNOLOGIES FOR THE FOOD INDUSTRY	
1) Drink Technology	
2) Food Additives/Ingredients/Functional Food	\boxtimes
3) Food Packaging / Handling	
4) Food Processing	\boxtimes
5) Food Technology	\square
8.2. FOOD QUALITY AND SAFETY	
1) Detection and Analysis methods	
2) Food Microbiology / Toxicology / Quality Control	
3) Safe production methods	
4) Tracability of food	
8.3. NUTRITION AND HEALTH	
9. MEASUREMENTS AND STANDARDS	
9.1. MEASUREMENT TOOLS	
1) Acoustic Technology related to measurements	
2) Analyses / Test Facilities and Methods	
3) Chemical material testing	
4) Electrical Technology related to measurements	
5) Mechanical Technology related to measurements	
6) Optical material testing	
7) Optical Technology related to measurements	
8) Other Non Destructive Testing	
9) Sensor Technology related to measurements	
10) Thermal material testing	
9.2. Amplifier, A/D Transducer	

9.3. ELECTRONIC MEASUREME	IT SYSTEMS		
9.4. RECORDING DEVICES			
9.5. REFERENCE MATERIALS			
9.6. STANDARDS			
1) Quality Standards			
2) Technical Standards			
10. PROTECTING MAN AND	ENVIRONMENT		\square
10.1. SAFETY			\square
1) Acoustic safety			\square
2) Assessment of Risk			\square
3) Fire Safety Technolog	,		\square
4) Hazardous Materials			\square
5) Radiation Protection			\square
10.2. ENVIRONMENT			\square
1) Air Pollution / treatme	nt		\square
2) Biodiversity			
3) Ecology			\square
4) Environmental Engine	ering / Technology		\square
5) Measurement and De	ection of Pollution		
6) Natural Disasters			
7) Remote sensing tech	loav		
8) Soil Pollution	Jogy		
9) Water Pollution / Trea	ment		
10.3 WASTE MANAGEMENT			
1) Riotrostmont / Compost / Rioconversion			
2) Incineration and Pyrolysis			
3) Land and Sea Disposal			
A) Recycling Recovery			
5) Padioactivo Wasto			
	ODMENT MODELS ECONOMIC AS	DECTS	
11.1. SOCIO-ECONOMIC DEVELOPMENT MODELS, ECONOMIC ASPECTS			
11.2. EDUCATION AND TRAINING			
11.3. INFORMATION AND MEDIA, SOCIETY			
11.4. IECHNOLOGY, SOCIETY AND EMPLOYMENT			
11.5. INFRASTRUCTURES FOR SOCIAL SCIENCES AND HUMANITIES			
11.6. CITIZENS PARTICIPATION			
11.7. FORESIGHT TOOLS			
11.8. SPORTS AND LEISURE			
	Organization/Company		
Name:	CASE PASIVE srl		
Type: Other	Size:	<10	
1990.	5120.		
Market Application Comme	nt 🛛		
Type of collaboration: *	License agreement		\boxtimes
(nlease tick more than one if	Technical Co-operation		
		Η	
	Manufacturing agroomont (S	ubcontracting & Co	<u>H</u>
	contracting)		

Commercial Agreement with Technical Assistance \square	
Other : Financial resources	
companies, R&D institutes, universities specialising in energy efficiency	
passive house, res-energy	
transfer of know-how concerning passive house tehnology, The 4 Power Plant; suport in implementation of mentioned technologies, processes	

Preferred Countries (for information):	Germany	
Associated Thematic Group:	RENEWABLE ENERGY	
HELP		

1. Title

The title should be clear and meaningful to a person who is not an expert in the technology or application field, and should enable them to form a picture of the companies or researchers in their region that might be appropriate partners.

2. Abstract of the request:

The abstract for a TR should answer the following questions:

- Where (geographically) is it from?
- What kind of organisation is looking for the technology?
- What technology are they looking for?
- What will the technology be used for?
- What stage of development should the technology be at?

3. Description of the request

Description/ Special features. *Please give a description of the characteristics of the request.*

It would be useful to identify the current activities of the company.

A technology request may arise in two kinds of situation :

- 1. Your client wants to improve his process or an existing product or needs some help for the development of a new product. The product and/or processes should be briefly described and the targeted prices and production throughput should be given.
 - a. Why does this company want to improve a current process or product?
 - b. What is the current technical problem to be solved, what process to be improved and why?
 - c. What are the technologies the company believes could be suitable?
 - d. Are there some specific requirements to take into consideration (temperature, pressure, size, etc)?
- 2. Your client wants to broaden the range of his products or services. In this case, a short description of the client's production facilities and of his marketing department and commercial skills would be useful.
 - a. Include a description of the problem to be solved or technology requested
 - b. Provide information about the current process / product to improve
 - c. Clearly specify the technical requirements
 - d. Provide a picture or drawing if one is available.

4. Technology Keywords

1. Choose as many keywords as are applicable to the technology or the

- application.2. Try to use level 3 keywords, as these are the most specific.3. Be aware that a search may be conducted using keywords alone.