

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
MINISTRY OF ENVIRONMENT AND FORESTRY	Research and Projects
	<ul style="list-style-type: none"> • “Research Project on Feasibility of a Propulsion System Based on Renewable Energy for the Boats Cruising on the Dalyan Canals in Köyceğiz-Dalyan Specially Protected Environment Area”. • Development and Stimulation of Modern Irrigation Systems (2008 - 2009). Performed with the aim of ensuring efficient use of water, protecting the soil from the hazards stemming from the use of chemical fertilizers and of ensuring the efficiency of energy. District Governorate of Altınekin, General Directorate of State Hydraulic Works, Special Provincial Administration of Konya, Konya Provincial Directorate of Agriculture, Altınekin District Directorate of Agriculture and WWF -Turkey.
	Academic and R&D Studies
	<ul style="list-style-type: none"> • “Development of Technology for Combustion of Biomass – Coal Compositions on Circulating Fluidized Bed” “Improving the Data Quality of National Declarations on Greenhouse Gases in the Department of Land Use, Land Use Change and Forestry, Determination of Strategies on Carbon Management Directed To Delay Climate Change”.
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Ensuring that the central and provincial units take necessary measures on energy efficiency through informing those units about the effective and efficient use of energy.
	Incentives and Financial Aids Provided
<ul style="list-style-type: none"> • Loans for solar energy systems provided by Ministry of Environment and Forestry, Directorate General of Forest and Village Relations. (See more detailed information at: www.orkoy.gov.tr) 	
Web Site: http://www.orkoy.gov.tr	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
MINISTRY OF INDUSTRY AND COMMERCE / KOSGEB	Research and Projects
	<ul style="list-style-type: none"> • Project on Improvement of Energy Efficiency in Industry
MINISTRY OF INDUSTRY AND COMMERCE / KOSGEB	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • The training, survey and counseling services on energy efficiency, received by the administrations defined in the Law on the Establishment of the Directorate on Small and Medium Industry Development and Support dated 12/4/1990 numbered 3624 directed at Small and Medium Size Enterprises, the aids given by the Directorate for Small and Medium Industry Development and Support (KOSGEB), • The aids for the R&D and Renovation Projects in fields of energy efficiency, clean production, eco-energy, renewable energy under the scope of Laws No. 5593, 5746, 4691 by Directorate General of Industrial Research And Development
ELECTRICAL POWER RESOURCES SURVEY AND DEVELOPMENT ADMINISTRATION	Research and Projects
	<ul style="list-style-type: none"> • Twinning Project on the Improvement of Energy Efficiency in Turkey (2005-2007) • The Project on Raising Awareness among the Public about the Effective Use of Energy in Buildings (2008) • The Project on Increasing Energy Efficiency in Turkish Industry Through Voluntary Agreements (2008-) • Global Environment Fund – GEF Project: The Project on Increasing Energy Efficiency in Industry, 2009 - 2015 • Conducting Thermal Performance Tests on Planar Sun Collectors • Technical Evaluation of License Applications Based on Wind Energy • Granting Aiding Services to Public Legal Bodies Willing to Invest on Wind Energy. • Determination of Wind Energy Source Fields. • Establishment and Operation of Solar and Wind Stations for Energy • Development of Turkey's Solar Energy Potential Atlas (GEPA) • Development of Turkey's Biomass Energy Potential Atlas (BEPA) • Development of Turkey's Wind Energy Potential Atlas (REPA) • The Process for the Facilities of the firms demanding a license for collecting waste oil with the aim of producing bio-diesel out of herbal waste oil • Grant of Conformity Certificate

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
ELECTRICAL POWER RESOURCES SURVEY AND DEVELOPMENT ADMINISTRATION	Research and projects
	<ul style="list-style-type: none"> • Energy Efficiency Surveys • Authorization Works • Monitoring and Database Works
	Academic and R&D Studies
	<ul style="list-style-type: none"> • Development of Technology for Combustion of Biomass – Coal Compositions on Circulating Fluidized Bed • Liquid Fuel Production out of Biomass and Coal Compositions • The Project on Fuel Cell Micro Co-generation System • The Project on the Utilization of Waste Heat of Thermal Plants
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Introducing a Energy Efficiency Week • Trainings on Energy Efficiency • “El Ele EnVer” Act (Energy Efficiency Altogether) • EnVer Motion Act • EnVer Act in Retailing Sector • Works for Preparing Films, Publications and Advertisement Materials • Energy Efficiency Contests • Energy Efficiency Training Facility (Exemplary Building) • Energy and Natural Resources Park
Incentives and Financial Aids Provided	
<ul style="list-style-type: none"> • EIE (Electrical Power Resources Survey and Development Administration provides the industrial enterprises that fall under the scope of Energy Efficiency with assistance for Efficiency Improving Projects (VAP) and voluntary agreements. The efficiency improvement projects of industrial enterprises are financially aided up to the amount of 500.000 TL, under the condition of reimbursement in 5 years at the latest. EIE also assists 20% of the implementation costs of VAP after the project is completed, provided this 20% rate does not exceed the limit of 100000 TL. • Moreover, the industrial enterprises which participate in voluntary agreements aiming to reduce energy density by at least 10% and which reach their goals may take 20 % of the costs in the year of agreement, provided that rate does not exceed 100.000 TL. For more detailed information see http://www.eie.gov.tr web page. 	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
ELECTRICAL POWER RESOURCES SURVEY AND DEVELOPMENT ADMINISTRATION	Plans and Targets
	<ul style="list-style-type: none"> • Dissemination of the use of renewable energy sources integrated with indigenouness and novelty elements with the aim of producing electrical energy, bringing these sources into the economy in a safe, economical and qualified manner, diversification of the sources, reduction on the greenhouse gasses emissions, protection of the environment, educing the dependence on foreign sources in field of energy, improvement of economical and social structure in rural areas, providing employment, and conducting various works aiming to improve every field of production needed in the process of achieving these goals by utilizing the local opportunities. • Reduction on the environmental effects and sustaining the R&D works on energy efficiency.
	<p>Web Sites: http://www.enerji.gov.tr http://www.epdk.gov.tr http://www.eie.gov.tr http://www.ruzgarenerjisibirliqi.org.tr http://www.ressiad.org.tr http://www.enver.eie.gov.tr http://www.repa.eie.gov.tr/enverIPAB/medyaweb.htm</p>

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
NATIONAL PRODUCTIVITY CENTER	Research and projects
	<p>Research:</p> <ul style="list-style-type: none"> • Solar Energy Utilizing Opportunities in Diyarbakır Province (2005) • Evaluation of Energy Policies in Turkey within the frame of Efficiency (2009) • Preparation of Energy Efficiency Counseling Package (2009) • Comparative Analysis of Regional Energy Production and Utilization Activity in Turkey (MPM – National Productivity Center Specialty Thesis, 2010)
	Publications
	<ul style="list-style-type: none"> • Diyarbakır Efficiency Improving Project (VAP) Book: a research named “Diyarbakır İlinde Güneş Enerjisinden Yararlanma Olanakları” (Solar Energy Utilizing Opportunities in Diyarbakır Province) (2006) • “Milli Prodüktivite Merkezi Verimlilik Göstergeleri” (National Productivity Center Efficiency Indicators): Publication of efficiency indicators within a scope conforming to the definition of EUROSTAT energy sector as well as those included in the Statistical Classification of Economic Activities in European Union (EFİS Rev.1.1) • “1. Temiz Enerji Kurultayı” (1st Clean Energy Congress); “Temiz Enerji Bağlamında Türkiye Enerji Sektöründe Bazı Seçilmiş Göstergeler (2000-2007) (Elected Indicators in Turkish Energy Sector Under The Scope of Clean Energy)” (2008) • “ICCI 2008 14. Uluslararası Enerji ve Çevre Teknoloji Sistemleri Fuar ve Konferansı (ICCI 2008 14th International Energy and Environmental Technology Systems Fair And Conference)”; “Enerji Sektöründe Verimlilik Göstergeleri (Efficiency Indicators in Energy Sector)” (2008)
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • “Energy Efficiency” Trainings and Conferences • Organization of trainings, conferences and sessions directed to the students of primary, secondary and higher education, besides the institutions and sectors related to energy • Publications and broadcasts related to energy efficiency in written and visual media.
Present and Predicted Resources	
<ul style="list-style-type: none"> • Technical assistance • Counseling assistance • Experts working in the field • Literature research prepared by field specialists. 	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
NATIONAL PRODUCTIVITY CENTER	Plans and Targets
	<ul style="list-style-type: none"> • Preparation of a book and an education package on Energy Efficiency until 2015, ensuring its availability to the related sectors, • Contributions in determination of national plans and targets in energy efficiency • Training and information works in the fields National Productivity Center acts, • Performing guidance works in energy efficiency nationally by conducting necessary analysis and evaluations within the scope of efficiency indicators.
	Need for Training and Resources
	<ul style="list-style-type: none"> • National and international articles, publications, books, dissertations and related institution/agency/expert views. • Cooperation with related national and international parties in energy efficiency, and training of said experts.
	Web Site : http://www.mpm.org.tr/verimlilikgostergeleri/
TÜBİTAK - MARMARA RESEARCH CENTER	Research and projects
	<ul style="list-style-type: none"> • Fuel cell technologies and applications • Gaseous fuel and hydrogen technologies • Applications of combustion, gasification and gas cleaning technologies • Renewable energy technologies and applications • Clean coal technologies and applications • Vehicles technology • Power electronics technologies • Battery technology • Energy saving and technologies • Fuel technologies

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

PUBLIC INSTITUTIONS	
İZMİR DEVELOPMENT AGENCY	Incentives and Financial Aids Provided
	<p>The project fields supported under the scope of SME Financial Aid Program:</p> <ul style="list-style-type: none"> • Spreading the use of environmentally friendly methods and technologies and energy types • Ensuring the production and consumption of clean energy in enterprises. • Ensuring energy efficiency in enterprises • Under the scope of 2008 Support Program, 3 projects that fall under the definition of energy efficiency were provided a grant aid. The Support Program will continue.
	Plans and Targets
	<ul style="list-style-type: none"> • Assistance of renewable energy investments • Improvement of qualified workforce and increase in the cooperation capacity • Improvement of renewable energy infrastructure
	Need for Training and Resources
	<ul style="list-style-type: none"> • The need for applied trainings on energy efficiency that will be provided in the region, sharing of good application examples, and development of a training program utilizing the good application example of the subject after selection of pilot institutions among the industrial enterprises in the region (in İzmir) (Food, textile and chemistry industries are suitable sectors.)

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

OSB (Organized Industry Region), CHAMBERS OF COMMERCE	
ISTANBUL CHAMBER OF INDUSTRY	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Design of the Electromechanical Equipments of Hydraulic and Wind Plants and The Practicability of Its Production in Turkey, 24 January 2008 • Design and Production of Wind Tribunes and Equipments Through Utilization of Domestic Sources, 7 May 2008 • Production of Solar Energy and Electricity Generation Equipments Through Utilization of Domestic Sources and Other Solar Applications, 19 November 2008 • Energy Efficiency in Turkish Industry, 9 March 2009 • “Renewable Energy and Financing of Energy Efficiency Contact Meeting”, 21 May 2009
BURSA CHAMBER OF INDUSTRY AND COMMERCE	Research and projects
	<ul style="list-style-type: none"> • BOSEN Elektrik Üretimi Otoprodüktör Grubu A.Ş. (Energy Electricity Generation Autoproducer Group Corp.) was established with the aim of clean electric power production. • The Project on the establishment of a cycle plant to produce electricity out of natural gas in OSB (1999)
	Plans and Targets
	<p>The Targets of Bursa Chamber of Industry and Commerce between 2009-2013:</p> <ul style="list-style-type: none"> • BURSA ORGANIZED INDUSTRY REGION CENTRAL STEAM SYSTEM: Generation of energy and steam from a single system aimed at prevention of environmental pollution and at reduction on the costs of energy in our ideal region which is the first organized industrial region of our country. • BURSA AND GEOTHERMAL RESOURCES: Works commenced by Bursa Governorate for the active use of geothermal resources, (energy production, health tourism, greenhousing and such) • BURSA AND ENERGY EFFICIENCY: Because of the foreign dependency and energy use as one of the most important problems in our country, it is accepted as a must for industry and work sectors to be in energy efficiency projects. Therefore, performing a detailed and effective project covering the government and all related institutions (such as governorate, municipality, industrial region managements)
MERSİN CHAMBER OF INDUSTRY AND COMMERCE	Research and projects
	<ul style="list-style-type: none"> • Çukurova Region Innovation Based Energy Cluster Project

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

OSB, CHAMBERS OF COMMERCE	
ESKIŞEHİR CHAMBER OF COMMERCE	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Under the scope of ESİNKAP Project, “Competition-focused Environmental Training Program” directed to industrialists (Subject Titles: Energy Efficiency, Renewable Energy), 2008
	Web Site: www.eso.org.tr
ANTALYA CHAMBER OF INDUSTRY AND COMMERCE	Dissemination and Information Activities
	<ul style="list-style-type: none"> • TÜBİTAK Scientific and Technologic Cooperation Networks and Platforms are in cooperation on “The Establishment of National PV Technology Platform”. 3 workshops were conducted up until today.
	Present Workforce
	<ul style="list-style-type: none"> • 7 employees working at R&D Center (one of them has a PhD in Environmental Engineering)
İSTANBUL CHAMBER OF COMMERCE (ICC)	Research and projects
	<ul style="list-style-type: none"> • Applications to ensure savings in ICC building and work processes (saving energy in lighting-heating-cooling and office equipments) <p>(The savings achieved with these applications are measurable and the achieved savings will be measured by an evaluation institution authorized under the scope of the related regulation.)</p>
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Encouragement and Public Announcement of ICC Energy Performance • Seminar / training on energy efficiency • ”How effective do you use your energy?” contest • Green Week

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

OSB, CHAMBERS OF COMMERCE	
OSTİM	Research and projects
	<ul style="list-style-type: none"> • Domestic Wind Tribune Production Project (KAMAG) • Parabolic Collector Project (TÜBİTAK) • Establishment of a 10 kW Biogas Plant • Works of National Photovoltaic Platform • Establishment of Domestic Energy Technology Platform (MoENR),EÜAŞ,TTGV,OSTİM) • Solar Technician Training Project (İŞKUR) • Renewable Energy and Environmental Technologies Clustering Project
	Academic and R&D Studies
	<ul style="list-style-type: none"> • Ongoing 5 projects under the scope of the protocol signed with Gazi University, stating that the graduate and postgraduate dissertations are implemented by our firms as R&D projects.
	Publications
	<ul style="list-style-type: none"> • Renewable Energy And Environmental Technologies Clustering Project Brochure
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Cluster Council Meetings every 6 months • Environmental Technologies and Renewable Energy Days, 2-3 June 2008
	Present and Predicted Resources
	<ul style="list-style-type: none"> • EU Project Supports • TÜBİTAK Aids
Plans and Targets	
<ul style="list-style-type: none"> • Raising awareness and coordinating the firms that are active in renewable energy and environmental technologies fields. • Reinforcement of SMEs and domestic products in the sector • Ensuring cooperation between public institutions, universities and industry. 	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

SECTORS	
PAGEV	<p>Research and projects</p> <ul style="list-style-type: none"> • FLOW FREE project (June 2008). The aim of Flow Free project is to increase extrusion output rates, and to decrease the energy consumption and process heat in the plastic extrusion process, Project Partner. • EU 6. Framework Project, PEPT FLOW project (2005-2009), “Innovative Polymer Flow Visualization for Best Machine Design, Improved Combination and Material Features, Process Efficiency and Energy Reductions”, Project Partner • EU Project, EuPC ; “Business Development Project” (June 2009), development of a system and a help desk for REACH and waste management and providing trainings on recycling, Project Partner.
	<p>Dissemination and Information Activities</p> <ul style="list-style-type: none"> • PEPT FLOW project introduction seminar. 23 October 2009 • Sectoral introduction seminars on "Waste Management" and "Recycling" within the frame of Business Development Program • PAGEV – Plastic Industry Congress– 2009 • “Energy economy, Environment and Plastic”
	<p>Web Sites: http://www.pagev.org.tr/contents.asp?a=349&b=0 http://www.pagev.org.tr/contents.asp?a=350&b=0 http://www.pagev.org.tr/contents.asp?a=349&b=0 http://www.pagev.org.tr/contents.asp?a=394&b=0</p>
CERAMICS RESEARCH CENTER	<p>Research and projects</p> <p>Projects related to efficient energy use in coating materials, to serve in favor of environmental management system, widespread use of dry grinding in coating materials in ceramics industry, the reduction of frit used in luster, improving the polishing process in technical porcelain production, development of luster with high abrasion resistance,</p> <ul style="list-style-type: none"> • Project 1: Grinding and Energy Efficiency in Grinding • Project 2: Moisture Controlled Tiles • Project 3: Reduction on the Sintering Temperature of Health Instruments and Deformation
	<p>Web Site: www.seramikarastirma.com.tr</p>

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

SECTORS	
TURKISH CEMENT MANUFACTURERS' ASSOCIATION	Research and Projects
	<p><i>Projects:</i></p> <ul style="list-style-type: none"> • Climate Change Strategy Development Project For Turkish Cement Industry • EU Twinning Project on Improvement of Energy Efficiency in Turkey. <p><i>Research:</i></p> <ul style="list-style-type: none"> • Increase in Energy Efficiency (in Electricity and Fuel) • “Energy Efficiency Benchmarking Study in Cements Sector” started in 2002.
	Academic and R&D Studies
	<ul style="list-style-type: none"> • Boron Active Axiom (BAB) Cement R&D Study (laboratory scale and application) (Achieving energy saving by reduction of sintering temperature)
	Publications
	<ul style="list-style-type: none"> • Use of Concrete for Energy-Efficient Buildings- Benefits of Thermal Mass • Why Concrete Roads? • 9. International Concrete Roads Symposium Notice Book
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Climate Change and Kyoto Protocol – informative meetings on Probable Sectoral Effects • Trainings, scientific meetings, symposiums and conferences directed to the sector • Ensuring plants’ participation in “Energy Manager Courses” (EİE-TÜBİTAK MRC-İTÜ)
	Present and Predicted Resources
	<ul style="list-style-type: none"> • Holding international relations on behalf of the sector • CEMBUREAU (The European Cement Association) Working Groups Memberships and participating in related studies. • Research and Development Institute.
	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • Within the frame of university – industry cooperation, research projects related to the sector are supported and master and doctoral studies are tempted with various scholarships.
	Web Site: www.tcma.org.tr

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

SECTORS	
TOBB FERROUS AND NONFERROUS MATERIALS ASSEMBLY OF TURKEY	Research and projects
	<p>Application works in the sector:</p> <p><u>Investments performed and planned in electric steel plants (EAO):</u></p> <ul style="list-style-type: none"> • Development and application of energy efficiency increasing systems, • Development and application of waste heat retrieval projects, <p><u>Investments performed and planned in integrated plants</u></p> <ul style="list-style-type: none"> • Energy saving by construction of additional storage tanks for the use of by-product gasses as additional fuel, • Improvement of the infrastructure directed to increase hot charge rates • Improving the efficiency of the system through development of process control systems, • Increase in the energy efficiency through establishment of waste heat retrieval systems, • Reduction in the use of coke and decrease in the emissions by increasing the high oven efficiency, • Upon the establishment of pulverized coal injection system, reduction on the need for coke which is the input of the high ovens and thus ensuring a decrease in the energy amount used, • Isolations in buildings and process lines for decreasing energy loss,

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
MIDDLE EAST TECHNICAL UNIVERSITY	Research and projects
	<ul style="list-style-type: none"> • TÜBİTAK Project, “Bio-fueled Small Gas Tribune Motor Conversion and Performance Comparison”, METU, Project Manager: Prof.Dr. İbrahim Sinan Akmandor, 2007-2009. • TÜBİTAK Project, “Establishment of a Plant on Electricity, Oxygen and Hydrogen Production out of Solar Energy Based PEM Fuel Cell for Hospitals and Development of High Pressure Electrolizor”, METU, Project Manager: Assis. Prof. Dr. İlker Tari, 2006-2010. • SPO Project, “Production of Renewable Energy and Bio-based Industrial Chemical Products from Organic Wastes”, METU, Çankaya University, Project Manager: Prof.Dr. Göksel N. Demirer 2004-2008. • METU Department of Environmental Engineering, Study on Carbon Footprint Management, 2007-
	Academic and R&D Studies
	<ul style="list-style-type: none"> • Erkan S., Synthesis of some metalophthalocyanines and their effects on the performance of PEM fuel cells, M.Sc. Thesis, Supervisor: Prof.Dr. İnci Eroğlu, Ankara, METU, Dept. of Chemical Engineering, 2005.
	Publications
	<ul style="list-style-type: none"> • Gogebakan Z. and Selçuk N., “Trace elements partitioning during co-firing biomass with lignite in a pilot-scale fluidized bed combustor”, Journal of Hazardous Materials, 162, 1129-1134. • Kars G., Gündüz U., Yücel M., Rakhely G., Kovacs K.L., and Eroğlu İ., “Evaluation of hydrogen production by Rhodobacter sphaeroides O.U.001 and its hupSL deficient mutant using acetate and malate as carbon sources”, International Journal of Hydrogen Energy, 34, 2184-2190. • Devrim Y., Erkan S., Baç N., and Eroğlu İ., “Preparation and characterization of sulfonated polysulfone/titanium dioxide composite membranes for proton exchange membrane fuel cells”, International Journal of Hydrogen Energy, 34, 3467-3475. • Şengül E., Erdener H., Akay R.G., Yücel H., Baç N., and Eroğlu İ., “Effects of sulfonated polyether-etherketone (SPEEK) and composite membranes on the proton exchange membrane fuel cell (PEMFC) performance”, International Journal of Hydrogen Energy, 34, 4645-4652 • METİN O, SAHİN S., and ÖZKAR S., “Water-soluble poly(4-styrenesulfonic acid-co-maleic acid) stabilized ruthenium(0) and palladium(0) nanoclusters as highly active catalysts in hydrogen generation from the hydrolysis of ammonia-borane”, International journal of hydrogen energy, 2009, vol. 34, no15, pp. 6304-6313. • Durap F., Zahmakıran M. and Ozkar S., Water soluble laurate-stabilized ruthenium(0) nanoclusters catalyst for hydrogen generation from the hydrolysis of ammonia-borane: High activity and long lifetime, i n t e r n a t i o n a l j o u r n a l o f hydrogen energy 3 4 (2 0 0 9) 7 2 2 3 – 7 2 3 0.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
MIDDLE EAST TECHNICAL UNIVERSITY	<p>Publications</p> <ul style="list-style-type: none"> • Yilmaz E. and Cancino B., "Methodology for the Study of Solar Energy Effects to CO₂ Balance in Tobacco Industry and Tobacco Plants", <i>Energy Sources, Part A: Recovery, Utilization, and Environmental Effects</i>, 31:1822–1828, 2009. • Incecik S, Atimtay A., and Choi H., Preface. <i>Int. J. Environment and Pollution</i>, Vol. 39, Nos. 3/4, 2009 • Oktar, N., Murtezaoglu, K., Dogu, G., Gonderten, I., Dogu, T., "Etherification Rates of 2-Methyl 2-Butane and 2-Methyl-1-Butene with Ethanol for Environmentally Clean Gasoline Production", <i>J. Chem. Tech. and Biotech.</i>, 74, 155-161,1999. • Altun, N.E., Hicyilmaz, C., Hwang, H.Y., Bagci, A.S., "Beneficiation Of Himmetoglu Oil Shale By Flo Tation As A Solid Fuel Substitute: Pt.1: Materials Characteristics And Flotation Behavior", <i>Energy and Fuels</i>, 20 (1), 222-226, 2006. • Topal, H., Atimtay, A.T., Durmaz, A., Olive Cake Combustion in A Circulating Fluidized Bed . "Fuel", 82, (2003), p.1049-1056. • Atimtay, A.T., Topal, H., Co-Combustion of Olive Cake with Lignite Coal in a Circulating Fluidized Bed. "Fuel", 83, (2004), p.859-867. • Atimtay, A.T., Kaynak, B., Co-combustion of Peach and Apricot Stone in a Bubbling Fluidized Bed. "Fuel Processing and Technology", 89, (2008), p.183-197 • Varol, M., Atimtay, A.T., Combustion of Coal and Olive Cake in a Bubling Fluidized Bed with Secondary Air Injection. "Fuel", 86, (2007), p.1430-1438. • Toraman, O.Y., Topal, H., Bayat, O., Atimtay, A. T., The Emission Characteristics of Co-combustion of Sewage Sludge with Olive Cake and Lignite Coal in a Circulating Fluidized Bed. "J. Environ. Sci. Health, Part A. ", A39, (2004), p.969-982. • Özkan L. and Demirer G.N., 2008. "Kültür Tipinin Şeker Endüstrisi Atıklarından biyohidrojen Eldesi Üzerindeki Etkisi", <i>Environmental Problems Symposium: Kocaeli 2008</i>, 14-17 May 2008, Kocaeli. • Demirer G.N. and Chen S., 2008., "Anaerobic biogasification of undiluted dairy manure in leaching bed reactors", <i>Waste Management</i>, Vol. 28, No: 1, 112-119. • Isci A. and Demirer G. N., 2007. "Biogas production potential from cotton wastes", <i>Renewable Energy</i>, Vol. 32, No: 5, 750-757. • Demirer G.N. and Chen S., 2004. "Effect of retention time and organic loading rate on anaerobic acidification and biogasification of dairy manure", <i>Journal of Chemical Technology & Biotechnology</i>, Vol. 79, No:12, 1381-1387. • Ergüder T.H., Tezel U., Güven E., and Demirer G.N., 2001. "Anaerobic biotransformation and methane generation potential of cheese whey in batch and UASB reactors", <i>Waste Management</i>, Vol. 21, No:7, 643-650. • Demirer G.N., Duran M., Ergüder T.H., Güven E., Ugurlu Ö. and Tezel U., 2000. " Anaerobic treatability and biogas production potential studies of different agro-industrial wastewaters in Turkey, <i>Biodegradation</i>, Vol. 11, No: 6, 401-405.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
MIDDLE EAST TECHNICAL UNIVERSITY	Publications
	<ul style="list-style-type: none"> • Gungor G. and Demirer G.N., 2003. "Biogas production potential from broiler and cattle manure", 2. Renewable Energy Symposium, Chamber of Electrical Engineers, 15-18 October 2003, İzmir, Turkey, 355-362. (in Turkish) • Demirer G.N., Duran M., Güven E., Ugurlu Ö., Ergüder T.H., Tezel U., Sen S., Korkusuz E.A., and Varolan N., 2001. "Biogas production from organic wastes by anaerobic methods: applicability in Turkey", Renewable Energy Symposium, Chamber of Electrical Engineers, 18-20 January 2001, İzmir, Turkey, 99-105. (in Turkish) • Demirer G.N., Duran M., Güven E., Ugurlu Ö., Ergüder T.H., Tezel U., Sen S., Korkusuz E.A., Varolan N., Demirci G., Çapar G., Acuner E., and Sahinkaya E., 2000. "An example for biomass energy: Biogas production from organic wastes by anaerobic methods", Third National Clean Energy Symposium, İstanbul Technical University and Clean Energy Foundation, 15-17 November 2000, İstanbul, Turkey, 467-474. (in Turkish) • Demirer G.N., Duran M., Ergüder T.H., Güven E., Ugurlu Ö. and Tezel U., 1999. "Anaerobic treatment and biogas generation potential of organic wastes: Potential and technological applicability in Turkey", Environmental Pollution Priorities of Turkey III, Gebze High Technology Institute, 18-19 November 1999, Gebze-Kocaeli, Turkey. (in Turkish) • Ergüder T.H. and Demirer G.N., 1999. "Anaerobic treatment and biogas generation potential of olive mill wastes" First Ecological Agriculture Symposium, Ekolojik Tarım Organizasyonu Derneği-Ege Universitesi, 21-23 Haziran 1999, Izmir, Turkey. (in Turkish)
ULUDAĞ UNIVERSITY	Research and projects
	<ul style="list-style-type: none"> • Sustainable and renewable fuel (bio-diesel - biofuel) works
	Publications
	<ul style="list-style-type: none"> • Ulusoy Y., Ulukardeşler A.H., Ünal H., Alibaş K., 2009. "Analysis of biogas production in Turkey utilizing three different materials and two scenarios", African Journal of Agricultural Research, 4, 10, 996-1003. • Ulusoy Y., Ünal H., Alibaş K., 2009. "Bursa İli Karacabey İlçesinde Örnek bir Biyogaz Tesisinin Kurulabilirliği için Tarımsal ve Gıda Artıklarının Enerji Potansiyeli", 25. Agricultural Mechanization National Congress Abstract Book, 1-3 October 2009, Isparta.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
SÜLEYMAN DEMİREL UNIVERSITY	Research and projects
	<p>Renewable Energy Resources Research and Application Center (YEKARUM) works in this field, (Preparatory steps of 5 separate projects in the center which consist of 1 SPO (State Planning Organization), 2 TÜBİTAK-MİSAG, 1 infrastructure and 1 individual projects are completed; of these, tenders of 3 project are completed and works on these have started, and tender specifications for other 2 are being prepared)</p> <p>Non-central Projects conducted by TÜBİTAK,</p> <ul style="list-style-type: none"> • Energy Generation with Solar Chimney (SPO), Determination of Isparta Province Clean Energy Potential (SDÜ Research Projects Unit Infrastructure Project) • Industrial Application of Ranque-Hilsch Vorteks Tubes (SDÜ Individual Project) • Solar Observational Photovoltaic Cell Aided Mobile Measurement Station Application (TÜBİTAK) • Obtaining Geophysical and Meteorological Data of Soil Based (Geothermal) Temperature Pomp Application Area in Isparta (SDÜ Individual Project) • SDÜ Clean Energy Houses Infrastructure Project (SDÜ Individual Project) • Application of Solar Observational Photovoltaic Cells in Mobile Measurement Stations (SDÜ BAPYB) • “Yenilenebilir Enerji Kaynaklı Isının İklimlendirme – Soğutma Proseslerinde Kullanım Potansiyelleri” (Utilization Potentials of Renewable Energy Based Heat in Air-conditioning – Cooling Processes) (TÜBİTAK) • Recycling of Zinc and Manganese Metals From Used Waste Cells, TÜBİTAK Project, ÇAYDAG 108Y018
	Academic and R&D Studies
<ul style="list-style-type: none"> • Environment and Clean Energy Area • Solar Energy Area • Wind and Wave Energy Area • Hydraulic Energy Area • Waste Energy Area • Geothermal Energy Area • Biomass and Biogas Energy Area • Electric Electronic And Automation • Hydrogen Energy and Fuel Cells 	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
SÜLEYMAN DEMİREL UNIVERSITY	<p>Publications</p> <ul style="list-style-type: none"> • Alternative Methods can be Applied Reduction of Greenhouse Gas Emission – Minta S., Solak M., Yazıcı H., 2008 (Environmental Problems Symposium, Kocaeli 2008) • Üçgül İ., Aksüzek Y., Wind Mill Farms and their Applicability in Isparta, Süleyman Demirel University Faculty of Engineering and Architecture Makine Mühendisliği Dergisi (International Journal of Mechanical Engineering) V-2, N-11, PP 17-26, Isparta, 2001. • Çolak O., Dombaycı Ö.A., Üçgül İ Savinius Wind Turbine Model Improvement for Variable Wind Speeds, Termodinamik Dergisi, No. 103, 70-72, 2001. • Koyun T., Üçgül İ., Absorbition Methods used for Naturalgas Disposal, SDÜ Fen Bilimleri Enstitüsü Dergisi Vol 6, No. 3, S.9-13-2003 • Üçgül İ., Şenol R., Acar M., Today, Tomorrow and Future Look for Solar Panels, Mühendis ve Makina, No. 560, 42-51, September 2006. • Şenol R., Üçgül İ., Acar M., Advances in Fuel Cell Technology and Applications in Vheicles. Mühendis ve Makina, Vol. 47, No. 563, 2006. • Telli Z.K., Üçgül İ., Öztürk M., The Use of Cell Method for Heat Field Determination for Steam Boilers, Politeknik Dergisi, Vol. 10, No. 3, 257-261, 2007. • Şenol R., Üçgül İ., Acar M., Problems Encountered During Solar Cell Production and Worldwide Production Mühendis ve Makina, Vol. 49, No. 581, 10-18, 2008. • Üçgül İ., Delikanlı K., Öztürk M., Şenol R., Material Selection for Solar Energy Receiving Systems, Makine Teknolojileri Elektronik Dergisi, Vol. 3, No. 53-64, 2006.
	<p>Dissemination and Information Activities</p> <ul style="list-style-type: none"> • Radio and TV broadcast on renewable energy resources (biomass, biogas etc.) and energy efficiency.
	<p>Incentives and Financial Aids Provided</p> <ul style="list-style-type: none"> • Center, conducted research projects and Süleyman Demirel University rectoral budget aids.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
SÜLEYMAN DEMIREL UNIVERSITY	Present and Predicted Resources
	<ul style="list-style-type: none"> • The resources of research center are continuing with the progressing technology. The predicted resources will be in place after the establishment of a technological measurement system for renewable energy resources.
	Plans and Targets
	<ul style="list-style-type: none"> • Rendering the center a unit surveying, developing, applying, producing and sharing technologies in the field of energy production systems for renewable energy resources.
	Need for Training and Resources
	<ul style="list-style-type: none"> • A course on Electricity generation with solar cells, basic climate course and experimental and project aided activities of many students.
GEBZE INSTITUTE OF TECHNOLOGY	Academic and R&D Studies
	<ul style="list-style-type: none"> • Biodiesel Laboratory was established in 2004 by Prof.Dr.Bülent Keskinler and it provides R&D services for various universities and industries.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
ZONGULDAK KARAEMLAS UNIVERSITY	Research and projects
	<ul style="list-style-type: none"> • Enrichment of Coal and Industrial Minerals by TESKA Heavy Medium Device, Assoc. Prof. Dr. İhsan Torunoğlu (Research Fund Project, 1997) • Evaluation of Anthracite and Lignite with Flocculation – Flotation Methods, Assist. Prof. Dr. Dilek Çuhadaroğlu (Research Fund Project, 1999) • Hydrogen Storage in Nano-Structural Materials, Prof. Dr. Türkan Kopaç (SPO, 2003)
ZONGULDAK KARAEMLAS UNIVERSITY	Publications
	<ul style="list-style-type: none"> • Kızgut S., TTK Investigations on Coal Mining in Karadon Region Madencilik, XXIX, no1 , 33-40, 1990. Toroğlu İ., Kızgut S., Çuhadaroğlu D., Pilevneli C, Advances in Coal Technology: Applications for Coal Quality Improvements in Tkey and around the World Kömür ve Enerji Semineri, 5-6 March 2004, Ankara. • Sütçü H., Toroglu İ., Desulphurization of Mengen lignite by pyrolysis, Mineral processing in the 21st century, ed,ted by Kuzev L., Nishkov I., Boteva A., Mochev D., 300-302, June 15-25, 2003, Varna, Bulgaria. • Kopaç M., Kopaç T., Effect of Fuel/air Momentum Ratio on Combustion Characteristics, Yanma ve Hava Kirliliği Kontrolü IV.Ulusal Sempozyumu Bildiriler Kitabı, 46-58, Akdeniz University, Antalya, May 1997.
HACETTEPE UNIVERSITY	Academic and R&D Studies
	<ul style="list-style-type: none"> • “Beneficial Use of Electrical Potential Develop During Biological Treatment and Improvement of the Potential”, Masters Thesis, Zehra Esra İlhan, Supervisor Assoc. Prof Dr. Selim Sanin. • “Forecasting of Turkey's Long Term Energy Demand and CO2 Emission Associated With This Demand”, Masters Thesis, Sibel Kocabaş Tuncar, Supervisor Dr. Merih Aydınalp Köksal. • “Determination of Wind Energy Potentials for The Locations of Bandırma, Bodrum, Bozcaada and Çeşme”, Masters Thesis, Cihan Dünder, Supervisor Prof. Dr. Demir İnan (1997).

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
CUMHURİYET UNIVERSITY	Academic and R&D Studies
	<ul style="list-style-type: none"> • Biomass Energy, Cumhuriyet University Environmental Engineering Department, Masters Degree Seminar, 2008. (Res. Asst. Murat TOPAL) • Biomass Energy, Fırat University Environmental Engineering Department, Graduation Assignment, 2006. (Res. Asst. Murat TOPAL)
	Publications
	<ul style="list-style-type: none"> • Murat TOPAL, E.İşıl ARSLAN, 2008. 'Biomass Energy and Turkey. VII. National Clean Energy Symposium, UTES 2008, İTÜ, İstanbul, 17-21 December 2008, 241-248. • E.İŞİL ARSLAN, Sibel ASLAN, Murat TOPAL, 2007. 'The Use of Biomass Waste". National Environment Symposium, Mersin University. Environmental Engineering Department, Çiftlikköy Campus, Mersin, 18-21 April 2007, 1-7. • E.İŞİL ARSLAN, Sibel ASLAN, Murat TOPAL, Ubeyde İPEK, 2007. 'Biomass Planting". I. Turkey Climate Change Congress, İTÜ Maslak KSB Saloon, İstanbul, 11–13 April 2007, 479–484. • E.İŞİL ARSLAN, Sibel ASLAN, Murat TOPAL, 2007. 'Conversion of Biomass into Energy. I. Turkey Climate Change Congress, İTÜ Maslak KSB Saloon, İstanbul, 11-13 April 2007, 485-492. • Sibel ASLAN, Murat TOPAL, E.İŞİL ARSLAN, 2006. 'A Solution for the Energy Resources of Turkey: Biomass Energy. VI. National Clean Energy Symposium, UTES, Süleyman Demirel University, Isparta, 25-27 May 2006, 788-795. • Murat TOPAL, E.İŞİL ARSLAN, Ferhat KILINÇ, 2009. 'World and Biomass Energy, 17. National Heat and Science Technique Congress, Sivas, 24-27 June 2009.
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Turkey's energy problem and renewable Energy Resources, Sivas, 02 April 2009.
	Need for Training and Resources
<ul style="list-style-type: none"> • Probable future courses on such issues as clean energy and renewable energy in our department. 	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

UNIVERSITIES	
YILDIZ TEKNİK UNIVERSITY	Publications
	<ul style="list-style-type: none"> • Kamil B.Varınca, M. Talha Gönüllü, (2006), "Evaluation of Environmental Effects of Cogeneration Systems Değerlendirilmesi", International Cogeneration, Combined Cycle and Environment Conference & Exhibition – ICCI 2006, 25-26 May 2006, İstanbul. • Kamil B.Varınca, M. Talha Gönüllü, (2006), "A Study on Solar Energy Potential of Turkey and Stage of Use, Method and Extent of Applications. ", I. National Solar and Hydrogen Energy Congress – UGHEK'2006,s:270-275, Eskişehir Osmangazi University, 21-23 June 2006, Eskişehir. • Kamil B.Varınca, M. Talha Gönüllü, (2006), "Positive Environmental Effects of Renewable Energy Use" VI. Ulusal Temiz Enerji Sempozyumu – UTES'2006, Süleyman Demirel University, 25-27 May 2006, Isparta. • Kamil B.Varınca, Gamze Varank, (2005),"Comparison of Different Solar Based Energy Generation Systems in terms of Environmental Impacts and Sollution Offers" Solar Energy Systems Symposium and Exhibition, p:148-160, 24-25 June 2005, İçel. • Kamil B.Varınca, Gamze Varank, (2005)," Evaluation of Wind Energy Systems and Sollution Offers" New and Renewable Energy Sources/Energy Management Syposium ,p:367-376, 3-4 June 2005, Kayseri. • Naim Sezgin, H. Kurtuluş Özcan, Kamil B.Varınca, Mehmet Borat,(2003)," Two Application Examples for Electricity Generation form Landfill Gas: İstanbul and Bursa Plants". Research Article, Yıldız Teknik Üniversitesi Dergisi (YTÜD), 2003-3, p:89-96, İstanbul.
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Kamil B. Varınca,"The Reasons for Climate Change and Measures have to be Taken" Seminar Presentation, Özel Şefkat Vakfı Bahçelievler İlköğretim Okulu, 8 May 2008, Bahçelievler, İstanbul
	Plans and Targets
	<ul style="list-style-type: none"> • Future courses in this field
Web Site: http://www.yildiz.edu.tr/~kvarınca	

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
TECHNOLOGY DEVELOPMENT FOUNDATION OF TURKEY (TTGV)	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Under the scope of ESİNKAP Project, “Competitiveness oriented Environmental Training for Manufacturers” . (Subjects: Energy Efficiency, Renewable Energy), 2008 • Under the scope of OKÜMKAP Project, “Competitiveness oriented Environmental Training for Manufacturers” aimed at industrialists (Subjects: Energy Efficiency, Renewable Energy), 2008 • Information related to Energy efficiency and Renewable Energy Financing and TTGV supports: <ul style="list-style-type: none"> ○ MMO I. Energy efficiency Congress, 1-2 June 2007 ○ 1. Clean Energy Congress, 15-17 October 2008. ○ Energy efficiency Applications and New Job Opportunities, KOSGEB, 18 June 2009 ○ İTKİB Increasing Energy efficiency in Textile and Ready-to-Wear Industry, 2 April 2009 ○ MMO II. Energy efficiency Congress, 9-11 April 2009 ○ İSO Renewable Energy and Energy efficiency Financing Information Meeting, 21 May 2009 • TRT Radio – Participation in the “Gündemdeki Enerji” Program as guest speaker, 2009
	Present and Predicted Resources
	<ul style="list-style-type: none"> • Recurrent Financial support for R&D and Application Projects • Program and project management and financing infrastructure • Technical and Administrative human force • National and International Project Application experience • Networking with national, international institutions, universities and public and private sectors • Free counseling services provided to firms under the scope of Enterprise Europe Network (EEN) conducted under European Union Competitiveness and Innovation Program (CIP), Entrepreneurship and Innovation Sub- Program (EIP)
	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • TTGV Technology Development (R&D) Projects Support Program – a general assistance program, providing soft loan for product and process development/improvement projects in energy efficiency and renewable energy fields. • TTGV Environmental Support Program – under the scope of Energy efficiency and Renewable Energy Support “application and investment projects” are provided with soft loan. • TTGV Commercialization Assistance – a general assistance program, recurrent financial aids directed to commercialization of products and processes in energy efficiency and renewable energy fields may be granted. • TTGV Technological Entrepreneurship Assistance – general assistance program available in energy efficiency and renewable energy fields.

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
TECHNOLOGY DEVELOPMENT FOUNDATION OF TURKEY	Plans and Targets
	<ul style="list-style-type: none"> • Evaluation of enterprise capital models with contents and scale conforming to Renewable energy and energy efficiency • Providing assistance in activities that fall within the scope of “Domestic Energy Technologies Research and Development Platform” that is planned to be established with the partnership of TTGV and Ministry of Energy and Natural Resources under the leadership of OSTIM. • Within the scope of GEF Energy efficiency Project, activities to raise awareness and works related to energy efficiency financing mechanisms • Within the scope of GEF Energy efficiency Project, assistance of energy efficiency demonstration projects under the scope of TTGV Energy Efficiency Assistance Program
	<p>Web sites: http://www.ttgvt.org.tr/ http://www.ekoverimlilik.org/ http://www.scp-turkey.org http://bsn.ttgvt.org.tr/ http://www.stu-turkiye.org</p>
UNITED NATIONS DEVELOPMENT PROGRAM (UNDP)	Research and projects
	<ul style="list-style-type: none"> • Sustainable Development, Energy, Desertification (2001-2004) • Climate Programme
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Ankara Climate Change Conference: Understanding the CLIMATE, Challenging the CHANGE 1-3 September 2004, , Ankara
	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • BTC Small Investment Funds (Bio-diversity) • GEF-SGP: Global Environment Fund – Small Assistance Program • Climate Change Enabling Activity
	Plans and Targets
	<ul style="list-style-type: none"> • Ensuring environmental sustainability
	<p>Web site: http://www.undp.org.tr/undp/undp_tur/EnerjiVeCevre.asp</p>
	<p>* PS: As it is not possible to retrieve the survey, the data in the web site below were used http://www.undp.org.tr/undp/undp_tur/EnerjiVeCevre.asp</p>

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
CLEAN ENERGY FOUNDATION	Research and projects
	<ul style="list-style-type: none"> • Establishment of Working Sets <ul style="list-style-type: none"> ▪ Solar Architecture in Anatolia Working Set (Establishment:1996- Closure:2009) ▪ Biogas and Applications Working Set (Establishment: 1997- Closure: 2009) ▪ Solar Cells and Applications Working Set (Establishment: 1997- Closure:2009) ▪ Solar – Temperature Conversion and Applications Working Set (Establishment:2009-) • Development of a computer program for the use of solar collectors. • Projects developed by TEMEV after the August 1999 Earthquake in Marmara Region. <ul style="list-style-type: none"> ▪ Project 1: obtaining hot water enough for the bathing needs of 200 – 300 persons' daily by means of solar collectors. ▪ Project 2: Establishment of electricity generation system out of solar energy. ▪ Project 3: Obtaining clean water from sea water by means of solar energy. ▪ Project 4: Building climate-conforming and energy-saving structures in the earthquake regions. ▪ Building “Solar House and Scientific Games Center” in the earthquake region (UNDP/GEF assisted) • Illustration of two bus stops by solar panels in Afyon Province. • Using solar energy for the internal illustration of Harran (Şanlıurfa) Culture House • Illustration of Van Cat Statue in Van Province on the Van-Bitlis highway by means of solar energy • Presenting a street lamp using solar energy to Muğla University as a gift to be used in their new campus • Illustration of a bus stops by solar panels in Çorum Province • Producton of a street lamp using solar energy for İZOCAM Corp. Training Facility • Turkish Partner in European Union Synergy Project named “How to Develop Energy Service Companies (ESCO) in the Mediterranean Partners” • Development and application of a biogas system enough to process 1 ton of poultry manure in Çorum Province. • Turkish Partner in European Union Synergy Project named “Analysis of Viability of the Clean Development Mechanism in the Mediterranean Area (CDM-ANVIMAR)” • Solar energy Bicycle Project (Hacettepe University New and Clean Energy Research and Application Center (YETAM) and Bisan Corp. partnership project. 1999)

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
CLEAN ENERGY FOUNDATION	Research and projects
	<ul style="list-style-type: none"> • Construction of a water pumping system operating on solar energy in Ankara Province Elmadağ District Süleymanlı Village (partner project with YETAM, 2007) • Cooking with solar energy contest, 18-24 June 2007, Beytepe, (partner project with YETAM) • 1.Clean Energy Congress, UTEK 2008, 15-17 October 2008-Ankara • 1. Clean Energy Youth Congress” 15-17 October 2008-Ankara
	Publications
	<ul style="list-style-type: none"> • Energy use past and today. Prof. Dr. D. İnan, 1999-Ankara. ISBN:975-8547-03-8 • Get to Know Our Sun. Prof. Dr. D. İnan, 1999-Ankara. • Thermal Applications of Solar Energy. Prof. Dr. D. İnan, 1999-Ankara. ISBN:975-8547-05-4 • Sun – Electricity Conversions Photovoltaic Solar Cells and Power Systems. Prof. Dr. Ş. Oktik, 1999-Ankara. ISBN:975-8547-06-2 • Hydrogen Energy. Prof. Dr. E. Türe, 1999-Ankara. ISBN:975-8547-11-9 • Geothermal Energy “Utilizing Earth Heat”. Prof. Dr. Ş. Şimşek, 1999-Ankara. ISBN:975-8547-08-9 • Wind Energy. S. Karadeli, 1999-Ankara. ISBN:975-8547-05-4 • Biomass Energy. S. Türe, 1999-Ankara. ISBN:975-8547-09-7 • Solar Architecture. Assoc. Prof. Dr. N. Demirbilek, Prof. Dr. D. İrkli, 1999-Ankara. ISBN:975-8547-12-7 • Biogases “Energy out of Wastes”. G. Demirci, L. Türkavcı, 1999-Ankara. ISBN:975-8547-10-0 • Economy and Efficiency in Energy. Prof. Dr. A. Eray 2001-Ankara ISBN:975-8547-13-5 • Clean Non-consumable Energies in Turkey. Prof. Dr. D. İnan 2006-Ankara • Clean Energy Foundation Since its Establishment (TEMEV) (1994-2004) 2004-Ankara • Energy Use and Our Future (Children’s book) Prof. Dr. D. İnan 2007-Ankara ISBN:978-975-8547-14-2 • Use Energy Economically and Efficiently at Home. 2004-Ankara • TEMEV News Bulletin published every 3 months

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
CLEAN ENERGY FOUNDATION	Dissemination and Information Activities
	<ul style="list-style-type: none"> • Participation in programs broadcast in various radios and TVs • Participation in trainings, panels and information meetings held on Energy Efficiency (Hydrogen in Turkey, Ege University, 7 August 1995; Drawing Contest with the title A World With Clean Energy, 1995; Utilizing Solar Energy Campaign, Diyarbakır, 30 May -1 June 1996; 3E: Energy, Ecology, Economy; Opportunities for Utilizing Non-Consumable Energies in the Future World, Habitat, 1996; “Muğla Clean Energy Days”, Muğla University, 16-18 October 1996; • “Solar Energy Systems and Solar Architecture Seminar and Workshop, 1-5 September 1997, Antalya. • “Course on Solar Energy Applications”, 10-12 October 1997. • Sun Day Celebrations; 1998 İzmir High Technology Institute, 1999 Kayseri, • “Wind Energy and Its Future” 25 March 1998, Ankara 27 March 1998 İzmir • Wind Energy Policies, Wind Energy Symposium , Muğla, 28 March 1998 • Informing the Wind Energy Participants in Turkey about the Developments In Turkey And Around The World and Creation of a Common Synergy” , 3 December 1999, Ankara • ENDP/GEF Project on Sustainable Energy Training in Turkey; (September 1998- October 1999) Çanakkale, Afyon, Antalya, Şanlıurfa, Zonguldak, Çorum, Van. (trainings in seven different geographical regions of Turkey within the frame of the project field and preparation of ten booklets and training materials, construction of three solar cells and a biogas application) • “Sharjah Solar Energy Conference” 19-22 February 2001, United Arab Emirates • Participation in ISES World Solar Energy Meeting ; Sweden - Gothenburg, 14-19 June 2003 • Clean and Non-consumable Energies, 8 March 2000, Turco-American Association, Ankara. • Energy Congresses (7. Energy Congress, Ankara, 1997; 8. Energy Congress, Ankara, 2000; 9. Energy Congress, 2003, İstanbul) • Information Meetings on Clean Energy and Environment; 20 April 2000 Bilgi University (Kuştepe Campus), 2 May 2000 Cent College (Tarabya), 11 May 2000 Marmara University Faculty of Communications (Nişantaşı), 11 May 2000 Galatasaray University Faculty of Science and Literature (Ortaköy), 17 May 2000 Boğaziçi University (Northern Campus), 26 May 2000 Işık University (Maslak), 2 June 2000 Yeditepe University (Üsküdar), İstanbul; TED Ankara College 22 and 26 March 2001, Milli Eğitim Vakfı Özel Ankara Fen Lisesi’ 29 March 2001; Eco-schools TURÇEV, 11-12-13 May 2001, Ankara, TED İstanbul College 6 June 2001, İTÜ Deneme Science Center, 13 June 2001)

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

NON-GOVERNMENTAL ORGANIZATIONS	
CLEAN ENERGY FOUNDATION	Dissemination and Information Activities
	<ul style="list-style-type: none"> • “Water and Clean Energy” , 30 May 2000, İstanbul • “Sun Day 2000, Mersin, 21 June 2000, and Konya, 23 June 2000. • “III. National Clean Energy Symposium”, 15-17 November 2000, İstanbul • Solar Design Activity, 19-20 April 2001, Eskişehir • “Renewable Energy Resources Symposium And Exhibition” 12-13 October 2001, Kayseri • “Utilizing Solar Energy In Structures Symposium”, 20.01.2002 , Ankara • “The importance of utilization of biological resources in sustainable development within the Framework of European Union regulations and contributions and applications; biomass energy, 25.01.2002, A.Ü. ATUM, Ankara • “Muğla Clean Energy Days 2002”, 2-3 May 2002 ,Muğla • “<i>Establishment of Photovoltaic Solar Cells and Power Systems Union in Turkey (PV-Net Türkiye)</i>”, 9 August 2002, Muğla University • “UTES’2002”, IV. National Clean Energy Symposium (UTES’2002) 16-18 October 2002, İstanbul • “<i>Turkey Energy Forum 2002</i>”, 11-13 December 2002, İstanbul • Biomass Workshop Ministry of Forestry, General Directorate of Forests (OGM), 26-27 November 2002. • III. E. Ü. Solar Energy Institute Traditional Solar and Other Renewable Energy Resources Industry Symposium and Exhibition, 1-3 May 2003 ,İzmir. • Renewable Energy Forum, 26 June 2003, Ankara. • Electrical Energy in Turkey, Today and Yesterday, 30 November 2003, Ankara.
	<p>Web site: http://www.temev.org.tr</p>

Table 2 Completed and Ongoing Research, Resources, Incentives, Plans and Needs in Fields of Energy Efficiency and Renewable/Clean Energy

BANKS	
INDUSTRIAL DEVELOPMENT BANK OF TURKEY	Research and projects
	<ul style="list-style-type: none"> • %100 renewable energy use and energy efficiency applications in all service buildings since June 2009 and thus a reduction in electricity consumption by 9 %
	Dissemination and Information Activities
	<ul style="list-style-type: none"> • “Carbon Neutral” identification as “The First bank that cleaned Carbon Footprint”
	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • Beginning in February 2010, financial aids will be granted to 92 projects in renewable energy and to 5 projects in energy efficiency. • Funding program is still in progress in this field.
	Web site: http://www.tskb.com.tr/
DEVELOPMENT BANK OF TURKEY	Incentives and Financial Aids Provided
	<ul style="list-style-type: none"> • Research and feasibility surveys to domestic and foreign investors of renewable energy investments. • On 10 December 2009, 770 million TL energy credits were granted in total; about 430 million TL of these grants were under contract and about 250 million TL payments was effected for the investments performed.