

Directory of Software and Services for EnergyPlus

Program Name	Description
EnergyPlus 1.3.0	Freely downloadable from www.energyplus.gov/ Support -- mailto:EnergyPlus-Support@gard.com Support Group -- groups.yahoo.com/group/EnergyPlus_Support

EnergyPlus Tools, Interfaces and Utilities

Utilities – Included in EnergyPlus – For creating, editing, and running input files.

Tool	Description
IDF Editor	For users who want a simple way of creating or editing EnergyPlus input data files (IDF), IDF Editor provides this service. Any EnergyPlus object may be viewed and edited using a spreadsheet-like grid. For inputs with several options, a list is provided. When a numeric input has a range of valid values, those values are displayed. It also automatically provides a list of object names when an object needs to be linked to another. By displaying all objects of the same kind next to each other in a grid, it is easy to see how inputs are different across the building. The IDF Editor outputs an EnergyPlus input file with proper syntax and comments to help the user understand the input values. In addition, the IDF Editor converts standard inch-pound units into SI units compatible with EnergyPlus.
EP-Launch	Provides a simpler alternative for running EnergyPlus than batch files. EP-Launch allows the user to select the input file directly or from a list of recent or sample files. It also allows easy selection for weather data files. After the EnergyPlus run completes, EP-Launch reports if any errors or warnings occurred. In addition, EP-Launch acts as a file manager for each run and can help open a text editor for any of the input and output files, opens spreadsheet for several results files, and starts up a viewer for the building drawing file.

EnergyPlus Example File Generator

Description

A Web-based service is available that creates and runs EnergyPlus input files for simple models of commercial buildings. The input files (and annual results summary files) are sent to your email address as attachments. This is a pilot project and is currently made available only as a BETA service. You can access the service and customize the characteristics of the building you want to model on the [EnergyPlus Example File Generator Application](#) (pop-ups must be enabled).

Third Party Tools – To create, edit, and display input files.

Vendor	Description
<p>Joe Huang and Associates 31 Sarah Lane Moraga CA 94556-2563 Ph: (925) 247-9180</p>	<p>DrawBDL+3.1 (www.drawbdl.com) allows users to visually review the building geometry in both EnergyPlus and DOE-2 input files. DrawBDL can export the DOE-2 surface data in EnergyPlus IDF format; useful for those users who wish to convert their DOE-2 input files into EnergyPlus input files.</p>
<p>The Deringer Group, Inc. 1250 Addison Street Berkeley, CA 94702 Ph: (510) 843-9000 Fx: (510) 843-9300</p>	<p>EnergyPlus Online Simulations are online tools embedded in the Deringer Group's EcoAdvisor, a set of training modules on sustainable buildings. These tools can be used by anyone and require no special knowledge of EnergyPlus. EnergyPlus Interface Support Tools</p> <p>This set of stand-alone Windows-based tools is intended to make the text-based use of EnergyPlus faster, easier, and more accurate. The tools assume that the user is somewhat familiar with typical text-based interfaces for energy simulations. So far there are two proof-of-concept tools.</p> <p>DrawEzPlus is a 3-D geometry rendering tool that displays the geometry imbedded in an EnergyPlus file. Users can toggle between line and surface (fill) presentation modes, and can select to draw any mix of key building objects — floor, walls, roof, windows, and attached and detached shading.</p> <p>EzPlus-Parm simplifies running multiple parametric EnergyPlus simulations. EzPlus-Parm helps a user to organize and edit all needed files. Their EcoAdvisor product also uses EnergyPlus to perform web-based building energy simulations.</p>
<p>GeoPraxis, Inc. 205 Keller Street, Suite 202 Petaluma, California 94952 Ph: (707) 766-7010 Voice Fx: (707) 766-7014 Fax</p>	<p>Green Building Studio is a web-based service provided by GeoPraxis, Inc . which gives 3D-CAD users quick, reliable, and free estimates of a building's energy costs during the early stages of conceptual design. Green Building Studio is powered by GeoPraxis' IDEA Server building energy simulation management software that incorporates DOE-2 and EnergyPlus into this solution. Key to the integrated interoperability exhibited in GBS-compliant 3D-CAD applications is the Green Building XML schema (gbXML), an open XML schema of the International Alliance of Interoperability's aecXML Group. Green Building Studio creates an EnergyPlus IDF file.</p>
<p>Taylor Systems Enrg, Inc. 9801 Fair Oaks Blvd., Suite 100 Fair Oaks, CA. 95628 Ph: (916) 961-3400 Fx: (916) 961-3410</p>	<p>TSe+, the first of a suite of tools to manage data for EnergyPlus is now available free of charge from Taylor Systems Engineering. TSe+Mat provides an interface to the materials datasets that come bundled with EnergyPlus and allows the user to add them to a personal database to maintain and modify for later use. Future tools under development include TSe+MatGlz (for materials and glazings) and TSe+Con (for constructions).</p>

Creating EnergyPlus input files

Vendor	Description
<p>EP-QUICK Jason Glazer, Glazer Software www.glazersoftware.com</p>	<p>EP-Quick is an easy-to-use program that creates an EnergyPlus input file for a building, without HVAC, using simple templates for the shape and zone layout. EP-Quick is not a full interface for EnergyPlus but simply a way to generate input files quickly.</p>
<p>ESP-r</p>	<p>In keeping with the philosophy of linking the ESP-r simulation suite to other modelling systems, users can now export to EnergyPlus an ESP-r model with materials, constructions, surfaces (all three and four sided surfaces as well as those including one window or one door - more complex surfaces are currently filtered out) and solar shading devices. Boundary condition attributes are translated and the parent/child relationship between opaque and transparent surfaces established. The exported models usually pass the EnergyPlus parser with no errors or with minor warnings. Currently, approximate optical properties are established and schedules are not yet included. We anticipate updating the geometric filters to match the current EnergyPlus release as well as including casual gain schedules in the near future. Those wishing more information about ESP-r or to download the standard distribution can go to www.esru.strath.ac.uk/Programs/ESP-r.htm Those wishing more information about the capabilities of ESP-r can go to www.esru.strath.ac.uk/Programs/ESP-r_capabilities/index.html</p>
<p>NaturalWorks Paul F. Linden (San Diego, CA) pfl@natural-works.com Guilherme Carrilho da Graça (Lisbon, Portugal) gcg@natural-works.com</p>	<p>EP_GEO and EP_SYS NaturalWorks has developed two spreadsheet-based interfaces that can complement the simple interface tools that are included in the standard EnergyPlus installation. EP_GEO (building geometry) - A spreadsheet that uses a set of simple macros to create rectangular building geometry, windows, shading, infiltration, internal gains and temperature control (using 'purchased air'). Rectangular zones can be automatically created in an idf file by simply entering zone height, width and length. An offset in zone origin can be used to insert multiple zones in an existing file. EP_SYS (systems) - This spreadsheet allows for creation of Purchased Air, Fan Coil And Variable air Volume systems in a large number of zones. The list of zones in an existing IDF file can be automatically imported and individual zones selected for insertion of one of the three basic types of systems available in the tool.</p>
<p>Square One Research Centre for Research in the Built Environment, Bute Building King Edward VII Avenue CARDIFF, CF10 3NB - Wales United Kingdom</p>	<p>ECOTECH from Square One couples an intuitive 3D design interface with a comprehensive set of performance analysis functions (visualization, solar and daylighting analysis, shadows and shading, lighting design, thermal performance, UK building regulations, ventilation, and acoustic analysis) with interactive information displays. It also can export an EnergyPlus IDF file. For more details, click here for an article from the Building Energy Simulation User News.</p>
<p>Interoperable HVAC Input Tool (IHIT) Barry O'Sullivan http://www.ucc.ie/iruse/barry-cw.html</p>	<p>The Interoperable HVAC Input Tool (IHIT) is one of many interoperable software tools being developed by the IRUSE research group at the National University of Ireland Cork. IHIT is a HVAC system design tool that allows a building design engineer to create HVAC system information for energy simulation in a context-sensitive format. The building designer creates the energy simulation HVAC model using ISO standard HVAC symbols/icons. IHIT continuously validates the underlying model and automatically outputs the model configuration in EnergyPlus IDF format and IFC neutral file format.</p>

Interfaces for EnergyPlus

Vendor	Description
<p>DesignBuilder Software, Ltd. In the United Kingdom: www.designbuilder.co.uk/ In the United States: www.designbuildersoftware.com/</p>	<p>DesignBuilder provides a range of environmental performance data such as: annual energy consumption, maximum summertime temperatures and detailed feedback on temperatures and heat flows in the building. DesignBuilder provides an interface to the latest EnergyPlus version for envelope, solar, ventilation and daylighting capabilities as well as heating and cooling load modeling. The software comes with summer and winter design data for 1439 worldwide locations and has access to more than 500 hourly simulation weather files.</p>
<p>E2AC</p>	<p>E2AC — A Brazilian interface for the EnergyPlus program E2AC is a simplified interface for the EnergyPlus program which allows the simulation of 'shoe box' models with or without air conditioning systems. The interface is under development by the LabEEE team (Energy Efficiency in Buildings Laboratory) at Federal University of Santa Catarina, Brazil. The current version (2.0 beta) is the first to be publicly available. Currently available only in Portuguese, it was developed to promote the use of EnergyPlus in Brazil. (An English version is under development.) E2AC has a library with typical Brazilian constructions and materials, and a template of a direct expansion air conditioner system (window mounted system). E2AC currently comes with hourly weather files and design days for 14 Brazilian cities. Through this interface, the user can simulate — in a few minutes — a single zone model and tests the effect of alternatives for envelope, internal loads density, schedules, set-point temperatures, and system capacities and efficiencies. E2AC allows the user to save several alternatives of a model in a single data file. Each alternative can be simulated directly from the interface. E2AC generates the EnergyPlus input data file (IDF) and executes EnergyPlus. NOTE: In order to run the simulation from the interface, it is necessary to install the current version of EnergyPlus on the user's computer. Output reports can be visualized through graphs plotted by the program. As this is a beta version, it will be expected that some bugs may be detected in the interface. Any problem or question can be reported to the LabEEE through e-mail. The program is under development and new features will be implemented soon, such as multi-zone and multi-floor building modeling. Website of the program: http://www.labeee.ufsc.br/edois/e2ac.html</p>
<p>E+IEQ</p>	<p>E+IEQ, being developed by Taitem Engineering, focuses on the energy and indoor environmental quality tradeoffs of building design. E+IEQ will feature 'smart defaults', wizards and customizable component libraries to speed data entry. Interface capabilities are planned to be gradually expanded to cover the broader scope of EnergyPlus. A first E+IEQ beta version is planned in 2005. If interested in being notified when the beta version becomes available, please send email to EPPlusIEQ@taitem.com.</p>
<p>E-FEN Charlie Curcija, Ph.D. Mahabir Bhandari, Ph.D., DesignBuilder Software 18 Tanglewood Rd, Amherst, MA 01002, Tel: 413-256-4647</p>	<p>EFEN is an energy simulation program designed for analyzing energy impacts and cost effectiveness of fenestration systems in various commercial and high-rise residential buildings. The program incorporates a user-friendly graphical user interface (GUI) and enables quick and effective parametric analysis of different fenestration systems. EFEN utilizes the EnergyPlus simulation engine to perform building energy consumption analysis. The main feature of the program is that it incorporates several pre-defined default commercial building types with typical construction, interior loads, operating schedules, and HVAC system configurations, such that users can quickly develop an energy models of a building.</p>
<p>EPPlusInterface Contact Santosh Phillip</p>	<p>EPPlusInterface is an open source initiative to develop a comprehensive interface for EnergyPlus. The code is free for anyone to use. The license is GPL. Modules currently under development are listed below; a few are ready to use. For latest downloads and status check http://www.coolshadow.com/EPPlusInterface/</p>

Interfaces for EnergyPlus (continued)

Hevacomp Design Simulation United Kingdom http://www.hevacomp.com/	<p>With Hevacomp Design Simulation, a building is set up by tracing around the internal perimeter of each room, adjacent surfaces are automatically detected as partitions. Databases of constructional elements are used. An extensive roof and floor modelling program is available, which enables simple or complex roofs to be traced from DXF files. Walls and partitions are automatically trimmed vertically to fit the roof, rooms above and below target rooms are detected. This enables a full 3D model to be produced for little more effort than a simple 2D tracing. Once the building has been set up, building simulation, linking to EnergyPlus, can be carried out to examine room heat losses and gains, summer overheating, peak design months, overheating frequency and building energy. The package will also produce 3D external shading graphics and internal solar penetration graphics, showing moving sunshine patches within rooms.</p>
xEsoView http://xesoview.sourceforge.net/	<p>xEsoView, an open source file viewer for EnergyPlus eso files, gives the user a very fast overview of the simulation results. The program lists all reported variable names, which can then be sorted and filtered. At the same time, it shows the graphical representation of the selected variable. The time axis can be changed using predefined ranges but xEsoView also supports zooming. With a selection box you can switch between the available environments, e.g. summer design day and run-period.</p>

Building Geometry – Translate building geometry from CAD into EnergyPlus IDF Input

Vendor	Description
IFCtoIDF http://www.eere.energy.gov/buildings/energyplus/interoperability.html	<p>IFCtoIDF utility is still in beta testing. This utility, along with the BPro COM-Server and several other software tools have been officially certified by the IAI as being compliant with IFC Releases 1.5.1 and 2.0 and are in the process of certification for Release IFC 2x. However, this does not mean that the utility is capable of seamlessly importing all data required for an EnergyPlus simulation from an IFC data file. The utility focuses on geometry only at this point.</p>

International EnergyPlus CONSULTANTS

Brazil	
Fernando Simon Westphal, M. Eng. fernando@labeee.ufsc.br	Federal University of Santa Catarina, Florianópolis, Brazil Tel: +55 (48) 331-5184 Fax: +55 (48) 331-5191
Alberto Hernandez Neto cell: +11 8187 1671	CEP:05508-900 Sao Paulo SP - Brazil Tel: +11 3091 9672 Fax: +11 3813 1886
Hong Kong	
Dr. Jianlei Niu, BEng, MSc(Eng), Ph.D. , MASHRAE, CEng, MCIBSE, MHKIE, Associate Professor, Director,	Hong Kong Polytechnic University, Hungghom, Kowloon, Hong Kong, Tel: (852) 2766 7781, Fax: (852) 2774 6146
India	
Dr. Vishal Garg,	Deemed University , Gachibowli, Hyderabad (AP) 500019, India. Mobile: +91 9848007094, Fax: +91 40 23001413
Dr.-Ing. Jyotirmay Mathur,	J.L.N. Marg, Jaipur -302 017, India. Tel: +91-141-2702708 (0)
Dr. Inderjeet Singh,	D-33 Defence Colony, New Delhi 110024, India. Tel: +91 11 2465 5141 to 43, Fax: +91 11 2465 5144,
Korea	
Hyeon Jun Moon, Ph.D. LEED	San 8, Hannam, Yongsan, Seoul, Korea Cell: 82-10-7109-4449
Portugal	
Guilherme Carrilho da Graça Alexandre Varela, Eng. Mecânico	Lisbon, Portugal Rua de Salazares, 842, 4100-442 Porto, Portugal. Tel.: +351 22 532 2000, Fax.: +351 22 617 7662
Serbia and Montenegro	
Prof. Milorad Bojic, Ph.d. Dr.Tech.Sci. MASHRAE,	University of Kragujevac, Sestre Janjic 6, 34000 Kragujevac, Serbia and Montenegro, Tel/Fax: +381-34-330-196
Spain	
Miguel Ángel Pascual Buisan,	MIYABI espacios urbanos bioclimáticos , Leyre 11 bis, 1º C 31002 Pamplona, Espana Tel: 948 20 36 44, Fax: 948 20 78 60

U.S. EnergyPlus CONSULTANTS

California					
Steven Konopacki	sikonopacki@yahoo.com	2315 Ward Street	Berkeley 94705	(510) 207-9649	
Wayne Seward, CEA	Bear Technologies www.hearttechnologies.com	7774 Calle Mejor	Carlsbad 92009	(760) 635-2327	
Cliff Gustafson or Smita Gupta cdg@tse-inc.net	Taylor Systems Engng., Inc. www.tse-inc.net/tseplus/index.html	9801 Fair Oaks Boulevard, #100	Fair Oaks 95628	(916) 961-3400 fax: 961-3410	
Paul F. Linden	pfl@natural-works.com	Natural Works - Consultants	San Diego		
Tianzhen Hong, PhD, P.E. thong@archenergy.com	Architectural Energy Corporation www.archenergy.com/	142 Mimma Street	San Francisco 94105	(415) 957-1977 fax: 957-1381	
Georgia					
Mate Thitisawat	Dept. of Architecture	Georgia Institute of Tech	Atlanta 30309	Tel: (404) 385-4677	
Illinois					
Erik Olsen eolsen@owpp.com	OWP/P Engineers -- www.owpp.com	111 West Washington St., #2100	Chicago 60602	(312) 960-8313 fax: 827-8313	
Jason Glazer - jglazer@gard.com	GARD Analytics -- www.gard.com	1028 Busse Highway	Park Ridge 60068	(847) 698-5686 fax: 698-5600	
Michael J. Witte, Ph.D. mjwitte@gard.com	GARD Analytics -- www.gard.com	1028 Busse Highway	Park Ridge 60068	(847) 698-5685 fax: 698-5600	
Massachusetts					
Paul Lyons, P.E., M.E.	Zapotec Energy	26 Glenwood Ave.,	Cambridge 02139	(617) 868-1964, fax: 547-9140	
Charlie Curcija, Ph.D., Mahabir Bhandari, Ph.D.	DesignBuilder Software	18 Tanglewood Rd	Amherst 01002	(413) 256-4647	
Michigan					
Oscar R. D. Smith, PE, CEM	Energy Modeling and Analysis	5208 Clarendon Crest Ct	Bloomfield Hills 48302	(248) 855-6308	
Minnesota					
Richard Hermans, PE	The Center for Energy and Environment	212 Third Ave North, Suite 560	Minneapolis 55401	(612) 335-5840, fax: 335-5888	
Tom McDougall - igm@twgi.com	The Weidt Group www.twgi.com	5800 Baker Road	Minnetonka 55345	(952) 938-1588 fax: 938-1480	
New York					
Chris Balbach cab@thomasgroup.com	Thomas Associates www.thomasgroup.com/	215 The Commons	Ithaca 14850	(607) 277-7100 fax: 277-1410	
Neville Burrows, P.E., LEED info@emegroup.com	EME Group www.emegroup.com	159 West 25 th Street, 5 th Floor	New York 10001	(212) 529-5969 Fax: 529-6023	
North Carolina					
Derrick Giles , Energy Manager	ENPULSE Energy Conservation, Inc.	100 N. Elm Street, #138,	Greensboro 27401	(336) 370-1088 Fax: 336-230-0554	
Hank Jackson, P.E.	ETech Solutions	P.O. Box 2355	Weaverville 28787	(336) 691-0785	
Ohio					
Zachary M. Albright	Jacco -- ZachA@jacco.com				

Directory of Software and Services for DOE-2

ESTSC Versions of DOE-2

Program Name and Vendor	Description
<p>DOE-2.1E (Ed Kidd, Kim Buckner) estsc@adonis.osti.gov ESTSC P.O. Box 1020 Oak Ridge, TN 37831-1020 Ph: 865-576-2606 / Fx: 576-2865 www.osti.gov/estsc</p>	<p>Source code, executable code and complete current documentation for: DOE-2.1E/Version 121 (1000-zone version for Windows and LINUX) OS: Windows, SUN UNIX/LINUX</p>

Commercial Versions of DOE-2

Program Name and Vendor	Description
<p>ADM-DOE-2 (Richard Burkhart) ADM Associates 3239 Ramos Circle Sacramento, CA 95827-2501 Ph: 916-363-8383 / Fx: 363-1788 www.adm-energy.com/</p>	<p>Use on 386/486 PCs with a math co-processor and 4MB of RAM. The package contains everything needed to run the program: program files, utilities, sample input files, and weather files. More than 300 weather files available. OS: DOS, Windows 95</p>
<p>Compare-IT (Matt Brost) RLW Analytics, Inc. info@rlw.com 1055 Broadway, Suite G Sonoma, CA 95476 Ph: 707-939-8823 / Fx: 939-9218 www.rlw.com</p>	<p>Compare-IT allows DOE-2 professionals to add value to their projects by giving clients "what-if" scenarios using DOE-2. The interface is designed for novice energy analysts and the GUI can be customized for each client's particular interests. Based DOE-2.1E. OS: DOS, Windows (98, 95, NT)</p>
<p>EnergyPro 3.0 (D. Vonderkullen) EnergySoft LLC 1025-5th Street, Suite A Novato, CA 94945 Ph: 415.897.6400 / Fx: 897-6422</p>	<p>Nonresidential load calculations for HVAC equipment sizing. Exports forms to AutoCad for inclusion on blueprints. On-line help. 344 weather files for the U.S. and Canada. OS: DOS, Windows (95, NT). For California Users: Performs Title 24 compliance calculations; state-certified HVAC and DHW Equipment directories, Title 24 lighting calculations. Based on DOE-2.1E</p>

Commercial Versions of DOE-2 -- Continued

<p>EZDOE Elite Software P.O. Box 1194 Bryan, TX 77806 Ph: 409-846-2340 / Fx: 846-4367</p>	<p>(Bill Smith) Provides full screen, fill-in-the-blank data entry, dynamic error checking, context-sensitive help, mouse support, graphic reports, a 750-page user manual, and extensive weather data. Full implementation of DOE-2 on DOS-based 386 and higher computers. On-line help. Some weather files. Based on DOE-2.1E. DOS</p>
<p>FTI/DOE2 Finite Technologies Inc. 3763 Image Drive Anchorage, Alaska 99504 Ph: 907-333-8937 / Fx: 333-4482</p>	<p>(Scott Henderson) Version 3.0 Release -- FTI/DOE is 100% compatible with LBNL version. Source code versions will compile with most F77-compliant compilers. On-line help: 344 weather files for the U.S. and Canada. Based on ESTSC DOE-2.1E. No demo, 30-day trial period OS: DOS, Windows (3.x, 95, NT) AIX, ULTRIX, VMS, Linux, NeXTStep,</p>
<p>VisualDOE 4.0 (Eric Kolderup) Architectural Energy Corporation 142 Minna Street (2nd floor) San Francisco, CA 94105 Ph: 415-957-1977 / Fax 1381</p>	<p>Fast construction of building geometry with pre-defined blocks and drawing interface. Import zone shapes from CADD file (dxf). Point+click to define zone properties and HVAC systems. Dynamic 3-D model views. Online help. LiveUpdate through internet. 400+ US, foreign weather files. OS: Windows 95/98/NT/ME/2000/XP</p>

Note: We list third-party DOE-2-related products and services for the convenience of program users, with the understanding that the Simulation Research Group does not have the resources to check the DOE-2 program adaptations and utilities for accuracy or reliability.

Support Tools for DOE-2

Program Name and Vendor	Description
<p>DOE-2 Parametric Study Tool The Deringer Group, Inc. 1250 Addison Street Berkeley, CA 94702 Ph: (510) 843-9000, Fx: 843-9300</p>	<p>DOE2PARM – is an MS Windows-based tool that permits you to run, edit and link all the related input and output files together in the same window. !</p>
<p>DoeRayMe (Jason Glazer, P.E.) GARD Analytics 1028 Busse Highway Park Ridge, Illinois 60068-1802</p>	<p>DoeRayMe is a simple and flexible user interface for DOE-2 “screening tool” applications. DoeRayMe uses a specially developed DOE-2 input template to change the user interface. This allows new “screening tools” to be developed by anyone with DOE-2 knowledge. Ph: 847-698-5690</p>

Support Tools for DOE-2 (continued)

Program Name and Vendor	Description
<p><u>DrawBDL</u> Joe Huang & Associates 31 Sarah Lane Moraga CA 94556-2563 Ph: 925-247-9180</p>	<p>DrawBDL, Version 3.0, is a graphic debugging and drawing tool for DOE-2 building geometry. DrawBDL reads your BDL input and makes a rotate-able 3-D drawing of your building with walls, windows, and building shades shown in different colors for easy identification. OS: DOS, Windows (3.1, 95, 98, NT) [Works with 2.1E] : joe@drawbdl.com</p>
<p><u>GreenBuildingStudio</u>, John F. Kennedy 444 10th Street, Suite 300 Santa Rosa, CA 95401 707.569.7373 x100 v, fax 569.7313</p>	<p>Green Building Studio is a web-based service provided by GeoPraxis, Inc. It gives 3-D CAD users quick, reliable, and free estimates of a building's energy costs during the early stages of conceptual design using DOE-2.</p>
<p>RIUSKA (Tuomas Laine) <u>Olof Granlund Oy</u> P O Box 59 Helsinki, FIN-00701, Finland Ph: +358 (9) 351031 / Fx: 35103421</p>	<p>With RIUSKA user can add building envelope materials, internal loads and HVAC-system into the created 3D-model of the building and perform thermal calculations. RIUSKA can be used for space simulations to dimension cooling or heating equipments, or for energy calculations of the whole building. OS: Windows (95, 98, NT) [Works with 2.1E]</p>
<p>Visualize-IT (Matt Brost) <u>RLW Analytics, Inc.</u> 1055 Broadway, Suite G Sonoma, CA - 95476 Ph: 800-472-6716 Fx: 707-939-8823</p>	<p>Visualize-IT 2.0 is a Windows application designed to help you explore and summarize short-interval time series data, e.g., measurements taken once every 15 minutes over a period of weeks, months or years. Visualize-IT has been developed specifically for electric and gas load data measuring class profiles, market-segments, individual customer sites or specific end uses. Customized DOE2.1e hourly output importer. Visualize-IT is highly useful and informative for looking at DOE2 output and/or comparing to interval metered data. It is equally useful for other time series measurements such as weather, industrial process control, and water quality. OS: Windows 95, 98 and NT</p>

Special Versions of DOE-2

Program Name and Vendor	Description
<p>Building Energy Analyzer InterEnergy Software 1700 South Mount Prospect Road Des Plaines, IL 60018 www.interenergysoftware.com</p>	<p><u>Building Energy Analyzer</u> - Easy to use software provides quick economic analysis for commercial and industrial building; allows users to compare energy options and to estimate energy loads and costs. <u>BinMaker PRO</u> - Weather data for engineering. <u>DesiCalc</u> - Software for screening desiccant dehumidification/cooling applications; allows users to easily run hour-by-hour simulations to compare the energy needs and costs of using desiccant-based equipment with those of competing electric air-conditioning equipment.</p>
<p>CBIP cbip.nrcan.gc.ca/cbip.htm Natural Resources Canada 580 Booth St., 18th Floor Ottawa ON K1A 0E4, CANADA</p>	<p>Natural Resources Canada's Commercial Building Incentive Program (CBIP) offers a financial incentive for the incorporation of energy efficiency features in new commercial and institutional building designs. The objective of this new incentive is to encourage energy-efficient design practices and to bring about lasting changes in the Canadian building design and construction industry.</p>

Special Versions of DOE-2 (continued)

Program Name and Vendor	Description
<p>Cool Tools (Peter Turnbull) Pacific Gas & Electric Company pwt1@pge.com www.hvacexchange.com/cooltools/</p>	<p>The CoolTools™ project objective is to develop, disseminate and promote an integrated set of tools for design and operation of chilled water plants. CoolTools products are Internet based, public domain resources available to building owners, design professionals, and operators involved in both new construction and retrofits.</p>
<p>Energy Gauge USA (D. Parker) Florida Solar Energy Center 1679 Clearlake Road Cocoa, FL 32922</p>	<p><i>Energy Gauge USA</i> allows the simple calculation and rating of residential building energy use in the US. The simulation calculates a six-zone model of the residence (conditioned zone, attic, crawlspace, basement, garage and sunspace) with the various buffered spaces linked to the interior as appropriate. TMY weather data for the program are available for 239 US locations.</p>
<p>Home Energy Saver (Residential DOE-2) hes.lbl.gov</p>	<p>Calculation of residential energy consumption using DOE-2.1E. In 10-20 seconds, the program performs a full annual simulation for a typical weather year (involving 8760 hourly calculations) from 239 locations around the United States.</p>
<p>PERFORM 2001 California Energy Commission 1516-9th St., MS-13 Sacramento, CA 95814 Ph: 916-654-5385</p>	<p>Created for the State of California Energy Commission's, Title 24 energy code. Perform 2001 is an interface shell with DOE-2 as the engine. PERFORM 2001 calculates building energy consumption for space heating, space cooling and domestic hot water heating, and compares the energy consumption of the building design against the requirements of the standards. DOS input. Output is only California Title 24 compliant. [Based on DOE-2.1E] Technical support \$100/year from Gabel-Dodd Energy Soft LLC, Call 415-883-5900 for details.</p>
<p>RESFEN-3.1 Building Technologies, MS 90-3111 Lawrence Berkeley Laboratory Berkeley, CA 94720</p>	<p>RESFEN calculates the energy and cost implications of a building's windows and insulated walls. Also compares the relative energy and cost impacts of two different windows. RESFEN calculates the heating and cooling energy use and associated costs, also the peak heating and cooling demand for specific window products. [Based on DOE-2.1E] OS: Windows 95, 98, NT</p>
<p>GeoPraxis 18880 Carriger Road, Suite D P.O. Box 5 Sonoma, California 95476 (707) 280-1529, fax 933-8477 <i>Thomas P. Conlon</i>, President tconlon@geopraxis.com</p>	<p>Energy Checkup for Homes http://www.geopraxis.com/ EnergyCheckup, A Service Provided by GeoPraxis, Inc., was developed in 1999 in partnership with one of the largest home inspection companies in the country, Inspectech, a Service of LandAmerica. In 2002, GeoPraxis took over management of EnergyCheckup, continuing to serve Inspectech and independent inspectors alike. Since inception, EnergyCheckup has performed over 27,000 inspections throughout California.</p>
<p>e-Calc http://ecalc.tamu.edu/ Texas A&M University</p>	<p>eCalc is a web based calculator allowing Government and Building industry users to design and evaluate a wide range of projects for energy savings and emissions reduction potential.</p>

INTERNATIONAL DOE-2 RESOURCE CENTERS

The people listed here have agreed to be primary contacts for DOE-2 program users in their respective countries. Each resource center has the latest program documentation, all back issues of the User News, and recent LBNL reports pertaining to DOE-2. Users may make arrangements to photocopy the new material for a nominal cost. We hope to establish centers in other countries; please contact us if you want to establish a center in your area.

Australia and Australasia

P. C. Thomas, Director, Team Catalyst, 67 Heig Street, Matoubra NSW 2035, Australia, pcthomas@teamcatalyst.com.au -- +0417 405 478
Murray Mason, ACADS BSG, 18 High Street, Glen Iris, VIC. 3146, Australia / Tel: +61 39 885 6586 / Fax: +61 39 885 5974

Brazil

Prof. Roberto Lamberts, Universidade Federal de Santa Catarina, Campus Universitario-Trindade, Cx. Postal 476, 88049-900 Florianopolis SC, BRASIL
lamberts@ev.ufsc.br / Tel: +55 48 331 9272/ Fax: +55 48 331 9770

Czech Republic

Faculty of Civil Engineering, Dept. of Environmental and Building Services Engineering, Czech Technical University in Prague, Thakurova 7, 166 29 Praha 6,
CZECH REPUBLIC <http://www.fsv.cvut.cz/ascii/index.htm> Tel: +42 2 2435 4327

Egypt

Dr. Ossama A. Abdou, Center for Building Environmental Studies and Testing (C-Best), 15-El-Shibani Street, Almanza, Cairo, Egypt Tel: +20 2 391 1137 or +20 2 417 4583 / Fax: +20 2 519 4343 / oabdou@hotmail.com

Germany

B. Barath or **G. Morgenstern**, BMW-Ingenieurbüro GmbH, Strasse der Nationen 5, D-30539, Hannover, Germany
Tel: +49 2 131 7574 9012 G. Morgenstern / Fax: +49 2 131 7574 9029

Hong Kong, China, Taiwan, Japan

Dr. Sam C. M. HUI, Mechanical Engineering Dept., University of Hong Kong, Pokfulam Road, Hong Kong (SAR), CHINA / cmhui@hku.hk,
<http://web.hku.hk/~cmhui> Tel: +852 2859 2123 / Fax: +852 2858 5415

India

Jiten Prajapati or **Anil K. Anand**, Energy Systems Engineering, IIT-Mumbai, Powai, Mumbai 400 076, INDIA
Tel : +91 022 578 2545 x7378

Italy

Marco Rapella, Managing Director Divisione Energie, Openplan SRL, c.so di Porta Nuova 13/15, 20121 Milano, Italy Tel: 39 02 626 94252, fax 36 02 2901 0531,
<mailto:marco.rapella@openplan.it>, <http://www.openplan.it>

Korea (Chungnam)

Dr. Jun Tae Kim, Department of Architectural Engineering, Kongju National University, 182 Sinkwan-dong, Kongju, Chungnam 314-701, Republic of Korea /
jtkim@knu.kongju.ac.kr / Tel: +82 416 850 8653 / Fax +82 416 856 9388

Korea (Seoul)

Dr. Jung-Ho Huh, Ph.D., Assistant Professor, Dongdaemoon-Gu Jeonnonng-Dong 90, Dept. of Architectural Engineering, The University of Seoul, Seoul 130-743,
Korea. -- huhj0715@uoscc.uos.ac.kr, Tel: +02-2210-2616 / Fax: +02-2248-0382

Korea (Taejon)

Dr. Euy-Joon Lee and **Jong-Ho Yoon**, Passive Solar Research Team, Bldg 2, Room 202, Korea Institute of Energy Research, Daeduk Science Town, 71-2 Jang-Dong, Yusong-Gu, Taejon 305-343, Republic of Korea. -- Lee: ejlee@kier.re.kr, Yoon: yesru@kier.re.kr
Tel: +82 42 860 3514 / Fax: +82 42 860 3132

INTERNATIONAL DOE-2 RESOURCE CENTERS (continued)

New Zealand

Tan Yune, Architecture Department, The University of Auckland, Private Bag 92019, Auckland, New Zealand tanynune@ccu1.auckland.ac.nz / Tel: +64 9 373 7999 x5647 / Fax: +64 9 373 7410

Portugal, Spain, Italy, and Greece

Antonio Rego Teixeira, INETI, Departamento de Energias Renováveis (DER), Estrada do Paco do Lumiar, 1649-038 Lisboa, Portugal
rego.teixeira@mail.ineti.pt / Tel: +351 21 712 7237 / Fax: +351 21 712 7195

Singapore, Malaysia, Indonesia, Thailand, and the Philippines

WONG Yew Wah (Raymond), Nanyang Technological University, School of Mechanical and Production Engineering, Nanyang Avenue, Singapore 2263, Republic of Singapore, myw.wong@ntu.edu.sg / Tel: +65 790 5543 / Fax: +65 791 1859

South Africa

Prof. L. J. Grobler, School of Mechanical and Materials Engineering, University of Potchefstroom, Private Bag X6001, Potchefstroom 2520, South Africa,
mgiljg@puknet.puk.ac.za / Tel: +27 148 299 1328 / Fax: +27 148 299 1320

Disclaimer: The Building Energy Simulation User News was prepared as an account of work sponsored by the United States Government (USG). While this document is believed to contain correct information, neither the USG nor any agency thereof, nor the Regents of the University of California (RUC), nor any of their employees, makes any warranty, express or implied, or assumes any legal responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process or service by its trade name, trademark, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the USG or any agency thereof, or the RUC. The views and opinions of authors expressed herein do not necessarily state or reflect those of the USG or any agency thereof or of the Regents of the University of California

INTERNATIONAL DOE-2 ENERGY CONSULTANTS

Australia

P. C. Thomas, Director, Team Catalyst, Matoubra NSW 2035, Australia, pethomas@teammcatalyst.com.au -- +0417 405 478

Peter Lyons, Peter Lyons & Associates, 24 Bellinger Crescent, Kaleen, ACT 2617, Australia, peterlyons@gmail.com, +61 408 808 556

Canada

Curt Hepting, P.Eng. EnerSys Analytics, 2989 Delahaye Drive, Coquitlam, B.C. V3B 6Y9 Canada <mailto:chepting@enersys.ca>. <http://www.enersys.bc.ca/homepage>
Tel: (604) 552-0700 / Fax (604) 552-0713

Dejan Radoicic, D. W. Thomson Consultants, Ltd., 1985 West Broadway #200, Vancouver, BC V6J 4Y3, Canada Tel (604) 731-4921 / Fax (604) 738-4420,
<mailto:dwtivan@dwtc.bc.ca>, <http://www.dwtc.bc.ca/>

Neil A. Caldwell, PE, Ameresco Canada, Inc., 1060 - 401 West Georgia St., Vancouver, BC V6B 5A1 Canada ,Tel (604) 684-4984 / Fax (604) 684-4985
<mailto:ncaldwell@ameresco.com>

Dr. Stephane Bilodeau, PE, President, Groupe Enerstat, Inc., 125 Turgeon Street, Bromptonville (Quebec), JOB IH0 CANADA. Tel (819) 846-1040 / fax (819) 846-4036. sbilodeau@groupeenerstat.com, www.groupeenerstat.com/en/profil

Gordon Shymko, G.F. Shymko & Associates, Inc., 129 Evergreen Crescent S.W., Calgary, Alberta T2Y 3R2, Canada, <mailto:gshymko@home.com>, Tel: (403) 254-4776, Fax: (403) 254-4795

Michael Wilson, P.Eng. Enerfficiency Consulting, 455 Elphinstone Ave., Gibsons, BC, Canada V0N 1V1 Canada,
Tel: 604-886-9864 / Fax: 604-676-2604 fax. mwilson@enerfficiency.ca / <http://www.enerfficiency.com/>

[Christopher R. Jones](mailto:Christopher.R.Jones), P.E., EnerSys Analytics, Inc., 14 Oneida Avenue, Toronto, Ontario M5J 2E6, Canada. Tel: 416-203-7465 / fax: 416-203-8246

Brian Fountain, P.Eng. GreenSim, 233 Euston Road, Burlington, ON L7L 4V8 Canada,

Tel: 905-639-6014 / Fax: 905-639-0443, bfountain@greensim.com / <http://www.greensim.com>

China

[GAO, Qinglong](mailto:GAO.Qinglong) , Green Building Design, Yanta Road 13, Xi'an Shaanxi, China 710055 – Tel: 0086-029-82204806

Germany

Jens Grundt and Ludwig Michel, GMW-Ingenieurbüro GmbH, Boulevard der Nationen 5, D-305539 Hannover, Lower Saxony, Germany

Tel: +49 0511 58 59 48 -11/Fax +49 0511 58 59 48 -48 www.gmw-ingenieurbuero.de jgrundt@gmw-ingenieurbuero.de

Ireland

Paul Overy, Overy + Associates, Mechanical and Electrical Consulting Engineers, Gurtnafluer Business Park, Clonmel, Co Tipperary, Ireland

Tel: +353 (0)52-27667, Fax: +353 (0)52-29238 <http://www.oveery-assoc.com/>

Italy

Marco Rapella, Energy & Facility Consultant, SMART FM, Viale delle Rimembranze di Lambrate 9/A, 20134 Milano - Italy, marco.rapella@smart-fm.it -- Phone: +39 347 4756858

Mexico

Ricardo Gallegos, Facultad de Arquitectura, Universidad Autonoma de Baja Calif., Mexicali, B.C. Mexico -- Phone and Fax (52 686) 566 42 50

Switzerland

Gerhard Zweifel, Hochschule Technik + Architektur Luzern, Technikumstrasse 21 Abt. HLK, CH-6048 Horw, Switzerland gzweifel@ztl.ch

Tel: +41 349 3349, Fax: 349 3960

United Kingdom

Dr. Peter Simmonds, Ove Arup and Partners, Ltd., 13 Fitzroy Street, London W1P 6BQ, United Kingdom.

Tel: +44 20-7465-3637 / Fax: 7465-3667, peter.simmonds@arup.com / <http://www.arup.com/>

U. S. DOE-2 ENERGY CONSULTANTS

Arizona				
Dale R. Broughton, P.E. drb6@home.com	Quantum Computer Resources www.qcr-usa.com	20833 North 1 st Street	Phoenix 85027	(623) 780-3496 fax: 322-0049
Henny van Lambalgen, P.E. henny@questenergy.com	Quest Energy Group, LLC www.questenergy.com	4325 East Pierce Road	Phoenix 85044	(480) 753-5590 fax: 753-1215
California				
Joseph Deringer info@deringergroup.com	The Deringer Group, Inc. www.deringergroup.com	1250 Addison Street	Berkeley 94702	(510) 843-9000 fax: 843-9300
M. Gabel, R. Howley office@gabelenergy.com	Gabel Associates, LLC www.gabelenergy.com	1818 Harmon Street	Berkeley 94703	(510) 428-0803 fax: 428-0324
Steve Konopacki	sikonopacki@yahoo.com	2315 Ward Street	Berkeley 94705	(510) 207-9649
Tom Lunneberg, Principal	Innovative Energy Solutions	6965 El Camino Real	Carlsbad 92009	(760) 805-3230
John R. Aulbach, P.E., CEM	jra_sac@yahoo.com	23508 Nafta Avenue	Carson 90745	(310) 308-6695
Leo Rainer lirainer@davisenergy.com	Davis Energy Group, Inc. www.davisenergy.com	123 C Street	Davis 95616	(916) 753-1100
Lisa Heshong	The Heshong Mahone Group www.h-m-g.com	11626 Fair Oaks Blvd, #302	Fair Oaks 95628	(916) 962-7001 fax: 962-0101
Cliff Gustafson, Smita Gupta	Taylor Systems Engineering, Inc. www.tse-inc.net	9801 Fair Oaks Blvd., #100	Fair Oaks 95628	(916) 961-3400 fax: 961-3410
Tom Lunneberg, PE tlunneberg@cig-net.com	Constructive Tech. Group http://www.ctg-net.com/energetics/Energetics.Home.htm	16 Technology Dr., #109	Irvine 92618	(949) 790-0010
Martyn C. Dodd support@energysoft.com	:EnergySoft, LLC www.energysoft.com	1025 5th Street, Suite A	Novato 94945-2413	(415) 897-6400 fax: 897-6422
Jim Kelsey PE kelsey@kw-engineering.com	kW Engineering www.kw-engineering.com	287-17 th Street – Suite 300	Oakland 94612	(510) 834-6420 fax: 834-6421
Dr. Tianzeng Hong, Eric Kolderup info@archenergy.com	Architectural Energy Corporation www.archenergy.com/	142 Minna Street	San Francisco 94105	(415) 957-1977 fax: 957-1381
Dr. Magnus Herrlin, Ph.D. John F. Kennedy, PE jfk@greenbuildingstudio.com	ANCIS, Inc. Green Building Studio www.greenbuildingstudio.com	http://www.ancis.us/ 444 10th Street, Suite 300	San Francisco Santa Rosa 95401	(see web site) (707) 569-7373x100 fax: 569-7313
Colorado				
Fred Porter	Architectural Energy Corp	2540 Frontier Ave, #201	Boulder 80301	(303) 444-4149 fax: 444-4304
Joel Neymark, PE neymarkj@qwest.net	J. Neymark & Associates	2140 Ellis Street	Golden 80401	(303) 384-3672 fax: 384 9427
Norm Weaver, PE n_weaver@interwvr.com	Interweaver Consulting www.interwvr.com	P.O. Box 775444	Steamboat Springs 80477	(970) 870-1710

U. S. DOE-2 ENERGY CONSULTANTS (continued)

Connecticut			
Adrian Tuluca atuluca@swinter.com	Steven Winter Associates www.swinter.com	50 Washington Street Norwalk 06854	(203) 857-0200 fax: 852-0741
Florida			
Philip Wemhoff wemhoff@buildingsleuth.com	9765 MacArthur Court North	Jacksonville 32246	(904) 645-5342
Dr. Paul Hutchins PE, CEM	Reynolds Smith & Hills, Inc. www.rsandh.com	10748 Deerwood Park Blvd South Jacksonville 32256-0597	(904) 256-2500 fax: 256-2501
Georgia			
Lung-Sing Wong, PE ls Wong@bpe-inc.com	Building Performance Engineers www.bpe-inc.com	3060 Wanda Woods Drive Atlanta 30340	(770) 270-0100
Glenn Bellamy (cell: 404-402-5881) gbellamy@heery.com	Heery International www.heery.com	999 Peachtree Street NE Atlanta 30309	(404) 946-2208 fax: 419-9169
Lung-Sing Wong, P.E. lung-sing.wong@servidyne.com	Servidyne Systems, LLC www.servidyne.com	1945 The Exchange, Suite 325 Atlanta, GA 30339-2029	770-933-4208 933-4209
Illinois			
Thomas Weber, P.E.	Weber Consultants, Ltd.	116 West Illinois St., 6W Chicago 60610	(312) 644-6180
Gary H. Michaels, PE	G.H. Michaels Associates	1512 Crain Street Evanston 60202	(847) 869-5859
Prem N. Mehrotra	General Energy Corp.	230 Madison Street Oak Park 60302	(708) 386-6000
Robert Henninger, PE rhenninger@gard.com	GARD Analytics, Inc. www.gard.com	1028 Busse Highway Park Ridge 60068-1802	(847) 698-5686
Kevin Luoma	Environmental Systems Design, Inc. inquiries@esdesign.com	175 W. Jackson Boulevard, Suite 1400 Chicago, Illinois 60604	312.372.1200 372.1222
Kansas			
Dr. Brian A. Rock, PE	U. Kansas, A/E Dept., Marvin Hall	barock@ukans.edu	Lawrence 66045-2222 (785) 864-3603
Massachusetts			
C. Kalasinsky P.E.	R.G. Vanderweil Engrs., Inc. www.vanderweil.com	274 Summer Street Boston 02458-1113	(617) 423-7423 fax: 423-7401
Mark Mullins	Select Energy Services www.selectenergyvs.com/	24 Prime Parkway Natick 01760	(508) 653-0456 fax: 653-0266
Michael Andelman, P.E. mike@andelmanlelek.com	Andelman and Lelek Engineering, Inc. www.andelmanlelek.com	1410 Providence Highway Norwood 02062	(781) 769-8773 fax: ***-****
Minnesota			
Daniel A. Katzenberger, P.E. dan@k-usa.com	Katzenberg USA Inc. www.k-usa.com/	7540 Edinborough Way, 1303 Edina 55435	(952) 893-7379 fax 952-835-1442
Missouri			
Mike Roberts	Roberts Engineering Co.	11946 Pennsylvania Kansas City 64145	(816) 942-8121

U. S. DOE-2 ENERGY CONSULTANTS (continued)

Montana							
Michael W Harrison, PE	Harrison Engineering	139 Bluebird Lane	Whitehall 59759			(406) 287-5370	
Nebraska							
Philip M. Schreier, PE FEL-OMA@worldnet.att.net	Farris Engineering www.farris-usa.com/	11239 Chicago Circle	Omaha 68154-2634			(402) 330-5900 fax: 330-5902	
New York							
Robert E. Gibeault, Jr. Hugh Henderson, Steve Carlson	regibeault@lycos.com CDH Energy Corporation	P.O. Box 641 (132 Albany St)	Albany 12202			(518) 745-4249 (315) 655-1063 and (315) 655-1058	
Scott Frank P.E., Konstantin Babets, and Chien Harriman	Jaros, Baum & Bolles www.jbb.com	80 Pine Street	New York 10005			(212) 530-9300	
Neville Burrows, P.E., LEED info@emegroup.com	EME Group www.emegroup.com	159 West 25 th Street, 5 th Floor	New York 10001			(212) 529-5969 Fax: 529-6023	
Michael Gresty, President gresty@kinetixllc.com	Kinetix LLC -- http://www.kinetixllc.com	535 West 34th St., Suite 508	New York, NY 10001			(917) 282.0310	
North Carolina							
Harshad D. Padia, PE, LEED, Adam F. Spach, EI, LEED, Russell E. Little, EI Hank Jackson, P.E.	Padia Consulting, Inc. www.padiaconsulting.com/about.shtml ETech Solutions	51 Kilmayne Dr. Suite 300 P.O. Box 2355	Cary 27511 Weaverville 28787			(919) 481.1777 fax: 460.8999 (336) 691-0785	
North Dakota							
Lawrence Johnson CECNM	1213 - 7 th Street N.E.		Minot			(701) 240-0988	
Oregon							
Mike Kaplan mike@kaplanengineering.com	Kaplan Engineering Cell: (503) 502-8827	7424 SE Stephens Street	Portland 97215			(503) 774-1669, fax: 774-4873	
Thomas J. White, P.E. Lead Engr., twhite@glumac.com	GLUMAC -- http://www.glumac.com	320 SW Washington, No. 200	Portland 97204-2640			(503) 227-5280 fax: 274-7674	
Pennsylvania							
Kimberly Byk, wba@utcorp.com	Wood, Byk & Associates, Inc.	829 Meadowview Road	Kennett Square 19348			(610) 347-0710 fax: 347-0711	
Texas							
Jeff S. Haberl jhaberl@esl.tamu.edu	Energy Systems Laboratory esl.tamu.edu	Texas A&M University	College Station 77843			(409) 845-6065	
Tarek Bou-Saada	bousaada@flash.net	4410 Grand Cayman Drive	Sugar Land 77479			(281) 265-9139	
David Gardner, General Manager	SolArm, Inc. -- www.solarm.com	6617 Sky Road	Joshua, TX 76058			(817)-309-2269 648-2413	

U.S. DOE-2 ENERGY CONSULTANTS (continued)

Virginia					
Jay Hall	jayhall@icfconsulting.com	ICF Consulting	9300 Lee Highway Fairfax 22031	(410) 263-3162	
Kurmit Rockwell	LEEDAP.P.E..CEM@rockwell.com	ConEdison Solutions	4350 N. Fairfax Dr., Suite 820 Arlington 22203	(703) 875-9458, ext 103, fax 875-8695	
Dave Walker	walker@swva.net	Walker Engineering www.swva.net/walkeng	P.O. Box 366, 4230 Pulaski Giles Turnpike Staffordsville 24167	(540) 921-4544 fax: 921-4548	
Washington					
Gregory J. Banken, PE	gbanken@qmetrics.com	Q-Metrics, Inc. www.qmetrics.com	P.O. Box 3016	Woodinville 98072-3016	(425) 825-0200 fax: 825-0136
Wisconsin					
Bill Talbert, M.E.	btalbert@aeieng.com	Affiliated Engineers Inc. USGBC LEED AP	5802 Research Park Blvd.	Madison 53719	(608) 441-6677