Meetings, Conferences, Symposia and Workshops

	2	2005
July 06-09, 2005	HVAC Asia, Singapore	Contact • hqlink@singnet.com.sg.
July 9-14, 2005	2005 Solar (ASES)	To be held in Portland, OR • www.ases.org
July 19-22, 2005	ACEEE Summer Study on Energy Efficiency in Industry	ustry
August 08-12, 2005	ASES/ISES Solar World Congress (2005) 2005	To be held in Orlando, Florida • http://www.swc2005.org/
August 11-12, 2005	The Use of RADIANCE in Design Practice, Research and Education	To be held at McGill University, School of Architecture, Montreal, Canada • http://irc.nrc-cnrc.gc.ca/ie/light/RadianceWorkshop2005
Augus† 15-18, 2005	IBPSA -Building Simulation 2005	To be held at École Polytechnique de Montréal in Montreal, Canada • http://www.ibpsa.org/
September 4-9, 2005	Indoor Air 2005	To be held in Beijing • www.indoorair2005.org.cn
September 14-16, 2005	World Energy Engineering Conference	To be held in Austin, TX • www.energycongress.com
September 25-27, 2005	ACEEE 3 rd Nat'l Conference on Energy Efficiency as a Resource	To be held in Berkeley, CA • www.aceee.org
October 6-9, 2005	Solar Forum 2005 - Photovoltaic Experience Conference	onference To be held in Washington, DC • www.solarpowerconference.com
October 9-12, 2005	8th REHVA World Congress - Clima 2005	To be held in Lausanne and Luzern, Switzerland • http://www.clima2005.ch/
October 24-26, 2005	ESM-2005 European Simulation and Modeling Conference	rence In Porto, Portugal • biomath.rug.ac.be/~eurosis/conf/esm/esm2005
October 26-28, 2005	Energy & Environmental Building Association (EEBA) 2005	BA) 2005 To be held in Colorado Springs, CO • www.eeba.org
November 9-10, 2005	ACEEE/SIEFE Int'l Seminar on Energy Efficiency	To be held in Sao Paulo, Brazil • www.aceee.org
November 9-11, 2005	2005 USGBC Greenbuild	To be held in Atlanta, 6A • www.usbc.org
November 21-23, 2005	Int'l Conference On Energy R & D	To be held in Safat, Kuwait • Contact Organizers At 965 4811188, Ext. 5804 Or Fax 965-484-7131.

Meetings, Conferences, Symposia and Workshops

		2006	
January 21-26, 2006	ASHRAE Winter Meeting	To be held in Chicago, IL • www.ashrae.org	ww.ashrae.org
March 19-21, 2006	10 th Annual Nat'l Symposium or	sium on Market Transformation To be held	To be held in Washington, D.C. • www.aceee.org
April 23-27, 2006	Light+Building	To be held in Frankfurt, Germany. • http	To be held in Frankfurt, Germany. • http://www.light-building.messefrankfurt.com.
Mαy 21-24, 2006	5th International Conference On Cold Climate HVAC	To be held in Moscow • Contact brodatch@abok.ru.	tact brodatch@abok.ru.
June 4-8, 2006	Healthy Buildings 2006	To be held in Lisbon, Portugal • www.hb2006.org.	il • www.hb2006.org.
June 24-28, 2006	ASHRAE Annual Meeting	To be held Quebec City, Canada • www.ashrae.org	ada • www.ashrae.org
July 09-12, 2006	SOLAR 2006	http://www.ases.org/	
Augus† 13-18, 2006	ACEEE Summer Study on Ene	on Energy Efficiency in Buildings To be h	To be held in Pacific Grove, CA • www.aceee.org

		2007
January 27-31, 2007	ASHRAE Winter Meeting	To be held in Dallas, TX, • www.ashrae.org
June 23-27, 2007	ASHRAE Annual Meeting	To be held in Long Beach, CA,• www.ashrae.org

Directory of Software and Services for EnergyPlus

Program Name	Description		Cost
EnergyPlus 1.2.2	Downloadable from	Support mailto:EnergyPlus-Support@gard.com	Free!
	www.energypius.gov/	Support Group group/EnergyPlus_Support	

EnergyPlus Tools, Interfaces and Utilities

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

Description

Tool

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.
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.

Third PartyTools – To create, edit, and display input files.

Description	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.
Vendor	Joe Huang and Associates 31 Sarah Lane Moraga CA 94556-2563 Ph: (925) 247-9180

Third PartyTools - To create, edit, and display input files (continued)

Vendor	Description
The Deringer Group, Inc. 1250 Addison Street Berkeley, CA 94702 Ph: (510) 843-9000 Fx: (510) 843-9300	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 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-
	DrawEzPlus is 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. 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.
GeoPraxis, Inc. 205 Keller Street, Suite 202 Petaluma, California 94952 Ph: (707) 766-7010 Voice Fx: (707) 766-7014 Fax	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.
Taylor Systems Engineering, Inc. 9801 Fair Oaks Blvd., Suite 100 Fair Oaks, CA. 95628 Ph: (916) 961-3410	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).

Creating EnergyPlus input files

Vendor	Description
Square One Research Centre for Research in the Built Environment, Bute Building King Edward VII Avenue CARDIFF, CF10 3NB - Wales United Kingdom	ECOTECT 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.

Creating EnergyPlus input files (continued)

Vendor	Description
NaturalWorks	EP_GEO and EP_SYS
Paul F. Linden (San Diego, CA) pfl@natural-works.com	Naturativorks has developed two spreadsheet-based interraces that can complement the simple interrace 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,
Guilherme Carrilho da Graça (Lisbon, Portugal) <u>gcg@natural-works.com</u>	shading, inititration, 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.
EP-QUICK Jason Glazer, Glazer Software www.glazersoftware.com	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.
ESP-r	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 parsent/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

Interfaces for EnergyPlus

Description

Vendor

Interfaces for EnergyPlus (continued)

Vendor	Description
E2AC	E2AC — A Brazilian interface for the EnergyPlus program which allows the simulation of 'shoe box' models with or without air conditioning systems. The 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: https://www.labeee.ufsc.br/edois/e2ac.html
E+IEQ	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 EPlusIEQ@taitem.com.
E-TEN	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.
EPlusinterface Contact Santosh Philip	EPlusInterface 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/EPlusInterface/

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

Vendor	Description
IDFtoIFC http://www.eere.energy.gov/buildings/energyplus/ifc.html	Please note that the IFCtoIDF utility is still in beta testing. This utility, along with the BSPro 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. For example, construction material characteristics are currently defaulted in the resulting IDF. These data are not imported from an IFC data file simply because there is not yet an IFC-compliant tool that provides a user interface for inputting material characteristics. Furthermore, interoperability based on the object-oriented IFC standard is still a relatively new technology. Even the seemingly simple exchange of geometry representing objects such as a space and the parts of walls, floors and ceilings that bound this space can result in misunderstandings between different tools. More experience in exchanging data between a wide variety of software tools is required before this technology matures to a stage of full and foolproof functionality.

International EnergyPlus CONSULTANTS

)	
Brazil			
Fernando Simon Westphal, M. Eng. fernando@labeee.ufsc.br	Energy Efficiency in Buildings Laboratory (LabEEE) www.labeee.ufsc.br/	Federal University of Santa Catarina, Florianópolis, Brazil	Tel: +55 (48) 331-5184 Fax: +55 (48) 331-5191
Germany		,	
Christian Struck, EUR ING Dipl Ing.(FH) VDI,	Buro Happold, Happold Ingenieurbüro GmbH,	Pfalzburger Strasse 43-44, D-10717, Berlin, Germany	Tel: +49 (0)30 860 906 0, Fax: +49 (0)30 860 906 66
Hong Kong			
Dr. Jianlei Niu, BEng, MSc(Eng), Ph.D., MASHRAE, CEng, MCIBSE, MHKIE, Associate Professor, Director,	Research Center for Building Environmental Engineering, Department of Building Services Engineering, Room FJ707,	Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong,	Tel: (852) 2766 7781, Fax: (852) 2774 6146
India			
Dr. Vishal Garg,	Center for IT in Building Science, International Institute of Information Technology (IIIT),	Deemed University, Gachibowli, Hyderabad (AP) 500019, India.	Mobile: +91 9848007094, Fax: +91 40 23001413
DrIng Jyotirmay Mathur,	Mechanical Engineering Department, Malaviya National Institute of Technology,	J.L.N. Marg, Jaipur -302 017, India.	Tel: +91-141-2702708 (0)
Dr. Inderjeet Singh,	Suzlon Energy Limited,	D-33 Defence Colony, New Delhi 110024, India.	Tel: +91 11 2465 5141 to 43, Fax: +91 11 2465 5144, Mobile:+91 98685 53891
Portugal			
Guilherme Carrilho da Graça Alexandre Varela, Eng. Mecânico	Natural Works - Consultants Edifícios Saudáveis Consultores,	Lisbon, Portugal Rua de Salazares, 842, 4100-442	Tel.: +351 22 532 2000, Fax.: +351
	Ì	Porto, Portugal.	22 617 7662
Serbia and Montenegro			
Prof. Milorad Bojic, Ph.d. Dr.Tech.Sci. MASHRAE,	Faculty of Mechanical Engineering, Department of Energy and Process Engineering,	University of Kragujevac, Sestre Janjic 6, 34000 Kragujevac, Serbia and Montenegro,	3, 34000 Tel/Fax: +381-34-330-196
Spain			
Miguel Ángel Pascual Buisan,	MIYABI espacios urbanos bioclimáticos,	Leyre 11 bis, 1°C 31002 Pamplona, Espana	Tel: 948 20 36 44, Fax: 948 20 78 60

U.S. EnergyPlus CONSULTANTS

California	,			
Steven Konopacki	sjkonopacki@yahoo.com	2315 Ward Street	Berkeley, CA 94705	(510) 207-9649
Wayne Seward, CEA	Bear Technologys www.beartechnologys.com	7774 Calle Mejor	Carlsbad, CA 92009	(760) 635-2327
Cliff Gustafson or Smita Gupta cdg@tse-inc.net	Taylor Systems Engrg., Inc. www.tse-inc.net/tseplus/index.html	9801 Fair Oaks Boulevard, #100	Fair Oaks, CA 95628	(916) 961-3400 fax: 961-3410
Paul F. Linden	pfl@natural-works.com	Natural Works - Consultants	San Diego, CA	
Tianzhen Hong, PhD, P.E. thong@archenergy.com	Architectural Energy Corporation www.archenergy.com/	142 Minna Street	San Francisco, CA 94105	(415) 957-1977 fax: 957-1381
Georgia				
Mate Thitisawat,	Dept of Architecture,	Georgia Institute of Technology	Atlanta, GA 30309	Tel: (404) 385-4677 Mobile 933-9864
Illinois				
Erik Olsen eolsen@owpp.com	OWP/P Engineers www.owpp.com	111 West Washington St., #2100	Chicago, IL 60602-2714	(312) 960-8313 fax: 827-8313
Jason Glazer iglazer@gard.com	GARD Analytics www.gard.com	1028 Busse Highway	Park Ridge, IL 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, IL 60068	(847) 698-5685 fax: 698-5600
Massachusetts				
Paul Lyons, P.E., M.E.,	Zapotec Energy,	26 Glenwood Ave.,	Cambridge, MA 02139-4708,	(617) 868-1964, fax: 547-9140
Minnesota				
Tom McDougall tgm@twgi.com	The Weidt Group www.twgi.com	5800 Baker Road	Minnetonka, MN 55345	(952) 938-1588 fax: 938-1480
Richard Hermans, PE	The Center for Energy and Environment	212 Third Ave North, Suite 560	Minneapolis, MN 55401	(612) 335-5840, fax: 335-5888
New York				
Chris Balbach cab@thethomasgroup.com	Thomas Associates www.thethomasgroup.com/	215 The Commons	Ithaca, NY 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, NY 10001	(212) 529-5969 Fax: 529-6023
North Carolina				
Derrick Giles, Energy Manager	ENPULSE Energy Conservation, Inc.,	100 N. Elm Street, #138,	Greensboro, NC 27401-2803	(336) 370-1088 Fax: 336-230-0554
Virginia				
John R. Ross III, P.E. jross3@erols.com	Westwind Corporation	1609 Sereno Court	Vienna, VA 22182-1958	(703) 255-4712 fax: 255-4712

Volume 26, No. 3 × May/June 2005

Directory of Software and Services for DOE-2

ESTSC Versions of DOE-2

	EST SO VEISIONS OF DOE-2	N DOE-2		
Program Name and Vendor	Description		Cost	
BOE-2.1E (Ed Kidd, Kim Buckner) estsc@adonis.osti.gov estsc@adonis.osti.gov P.O. Box 1020 Oak Ridge, TN 37831-1020 Ph: 865-576-2606 / Fx: 576-2865 www.osti.gov/estsc Source code, exect	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	Support Limited operational support (telephone assistance for installation, media or platform questions).	Windows U.S. Govt/Non-Profit/Educ U.S. Public, Mexico, Canada Japan Other Foreign	\$ 300 \$ 575 \$1268 \$1075

Commercial Versions of DOE-2

_	Cost	\$395 + \$15/SH including one set weather data (your choice) and documentation	\$500 consultant \$2000 client Documentation available
		<u>Input</u> Output Support	Input: Customizable windows GUI dynamically built based on DOE-2 macros. <u>Output</u> Support
	Description	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	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)
	Program Name and Vendor	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/	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

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.

Ď
ne
ij
ō
ပ
ņ
Ш
Ō
۵
οę
S
Ĕ
. <u>S</u>
2
Š
=
<u>:</u>
Š
e
Ξ
등
ŭ

Program Name and Vendor	Description		Cost
EnergyPro 3.0 (D. Vonderkulen) EnergySoft LLC	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.	<u>Input:</u> Graphical	DOE-2 Module: \$ 700 ^{1,2} Non-residential \$ 250 ^{1,2}
1025-5 th Street, Suite A Novato, CA 94945 Ph: 415.897.6400 / Fx: 897-6422		Output: Graphs, forms	nterface ects cash di: documentat
	Equipment directories, Title 24 lighting calculations. Based on DOE-2.1E	Support Unlimited support	required
EZDOE (Bill Smith)	Provides full screen, fill-in-the-blank data entry, dynamic error checking, context-sensitive help, mouse	Input Fill-in-the-blanks	\$1295 w/documentation
Elite Software P.O. Box 1194 Bryan TX 77806	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	Output Standard DOE reports plus some custom graphic reports	Source code not available.
Ph: 409-846-2340 / Fx: 846-4367	help. Some weather files. Based on DOE-2.1E. DOS	Support Unlimited phone support	
FTI/DOE2 (Scott Henderson)	Version 3.0 Release FTI/DOE is 100% compatible	Input Version 2.x: text based	\$ 995.99 US w/documentation
Finite Technologies Inc. 3763 Image Drive	with EDNE VELSION. Source code versions with compliant with most F77-compliant compilers. On-line help: 344 weather files for the U.S. and Canada. Based on ECTEC TO F 27 EVELSION SOURCE SOURC	Version 5.3. graphical Output All standard DOE-2 reports Run time and status graphics	
Aliciforage, Alaska 33304 Ph. 907-333-8937 / Fx. 333-4482	OS: DOS, Windows (3.x, 95, NT) AIX, ULTRIX, VMS, Linux, NeXTStep,	\$ 35 each email per incident \$ 55 per hour per incident \$ 125 per hour for engineering advice.	
PRC-DOE-2 (Paul Reeves)	Text-based version of DOE-2 includes documentation. Extensive information on new features, including	Input Standard text-based	\$ 495 w/documentation
Partnership for Resource Conservation 140 South 34th Street	information on new system types, new commands, new options, etc., added to later versions of 2.1E.	Output	Source code not available.
Boulder, CO 80303 Ph: 303-499-8611 / Fx: 554-1370	OS: DOS, Windows (95, NT)	Support Unlimited support.	
VisualDOE 4.0 (Eric Kolderup)	Fast construction of building geometry with pre-defined blocks and drawing interface. Import zone shapes from	Input \$800 new commercial license Graphical \$400 commercial upgrade from	\$800 new commercial license \$400 commercial upgrade from version 2.6
Architectural Energy Corporation 142 Minna Street (2 nd floor) San Francisco CA 94105	CADD file (dxf). Point+click to define zone properties and HVAC systems. Dynamic 3-D model views. Online help. I ivel Indate through internet 400+ 115 foreign.	aphical	60% discount for educational use \$3000 Site license (up to 8 registration keys) \$8000 concorate license (up to 15 registration keys)
Ph: 415-957-1977 / Fax 1381	weather files. OS: Windows 95/98/NT/ME/2000/XP	Support 90 days free phone plus 1 year email support; thereafter \$300/year per licensed user	nail support.;

Volume 26, No.3 × May/June 2005

Support Tools for DOE-2

Support Tools for DOE-2 (continued)

(Matt Brost) 10. Unite G	es	ה כס
(Matt Brost)	Windows application designed to help you explore and summarize short-interval time series	
<u>O</u>		\$500.00 per set
(D)	data, e.g., measurements taken once every 15 minutes over a period of weeks, months of years. Visualize-11	Volume Discounts
<u>-=</u>		Available
	ndividual customer sites or specific end uses. Customized DOE2.1e hourly output importer. Visualize-IT is	
Ph: 800-472-6716 highly useful and informative for looking	lighly useful and informative for looking at DOE2 output and/or comparing to interval metered data. It is equally	
Fx: 707-939-8823 Loseful for other time series measuremen Windows 95, 98 and NT	useful for other time series measurements such as weather, industrial process control, and water quality. OS: Vindows 95, 98 and NT	

Special Versions of DOE-2

Program Name and Vendor	Description	Cost
Building Energy Analyzer InterEnergy Software 1700 South Mount Prospect Road Des Plaines, IL 60018 support@interenergysoftware.com www.interenergysoftware.com	InterEnergy Software, Inc. was established in 1998 by the Gas Research Institute and the Institute of Gas Technology to develop and market software for the energy industry. Building Energy Analyzer - 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. BinMaker PRO - Weather data for engineering. DesiCalc - 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.	see website for prices
CBIP cbip.nrcan.gc.ca/cbip.htm Natural Resources Canada 580 Booth St., 18th Floor Ottawa ON K1A 0E4, CANADA	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.	Web Based (free)
Cool Tools (Peter Turnbull) Pacific Gas & Electric Company pwt1@pge.com www.hvacexchange.com/cooltools/	The CoolTools TM 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.	Web Based (free)
Energy Gauge USA (Danny Parker) Florida Solar Energy Center 1679 Clearlake Road Cocoa, FL 32922	Energy Gauge USA 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.	Contact Danny Parker at FSEC for availability.
Home Energy Saver (Residential DOE-2) hes.lbl.gov	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.	Web Based (free)
PERFORM 2001 California Energy Commission 1516-9 th St., MS-13 Sacramento, CA 95814 Ph: 916-654-5385	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.	\$250 including PERFORM 2001 program and manual on CD. (VISA/MC) Order #PS-400-04-017 www.energy.ca.gov/reports/reports_400.html
RESFEN-3.1 Building Technologies, MS 90-3111 Lawrence Berkeley Laboratory Berkeley, CA 94720	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	Free! Download
TEXAS EMISSIONS REDUCTION CALCULATOR Texas A&M University	The Texas Emissions Reduction Calculator was created to provide Texans with an accurate, easy-to-use tool for calculating the emission reduction credits attributable to a single-family residence.	

CENTERS RESOURCE DOE-2 INTERNATIONAL

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, SOLARCH, University of New South Wales, Sydney 2052, Australia

Tel: +61 2 9385 6373 / Fax: +61 2 9385 6735, email PC.Thomas@unsw.EDU.AU http://www.fbe.unsw.edu.au/units/solarch

Murray Mason, ACADS BSG, 18 High Street, Glen Iris, VIC. 3146, Australia / Tel: +61 39 885 6586 / Fax: +61 39 885 5974

Prof. Roberto Lamberts, Universidade Federal de Santa Catarina, Campus Universitario-Trindade, Cx. Postal 476, 88049-900 Florianopolis SC, BRASIL lamberts@ecv.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

Dr. Ossama A. Abdou, Center for Building Environmental Studies and Testing (C-Best), 15-EI-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, Ingenieurbüro Barath & Wagner GmbH, Postfach 20 21 41, D-41552 Kaarst, 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/~cmhuiTel: +852 2859 2123 / Fax: +852 2858 5415

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

Dr. Jung-Ho Huh, Ph.D., Assistant Professor, Dongdaemoon-Gu Jeonnong-Dong 90, Dept. of Architectural Engineering, The University of Seoul, Seoul 130-743, Korea. Korea (Seoul)

huhj0715@uoscc.uos.ac.kr, Tel: +02-2210-2616 / Fax: +02-2248-0382

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 Korea (Taejon)

Tel: +82 42 860 3514 / Fax: +82 42 860 3132

CENTERS (continued) RESOURCE DOE-2 INTERNATIONAL

New Zealand

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

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 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 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 Disclaimer: The Building Energy Simulation User News was prepared as an account of work sponsored by the United States Government (USG). While commercial product, process or service by its trade name, trademark, or otherwise, does not necessarily constitute or imply its endorsement,

or reflect those of the USG or any agency thereof or of the Regents of the University of California

CONSULTANTS ENERGY INTERNATIONAL DOE-2

Australia

P. C. Thomas, Sustainable Building & Energy Consultants, 6/52 Houston Road, Kingsford NSW 2032, Australia.

Tel/Fax: +61 2 9662 0205, Mobile +61 417 405 478, pc_thomas@iname.com

Paul Bannister, Energy Group, Ltd., Unit 9, 14 Lonsdale Street, P. O. Box 25, Braddon, ACT 2612, Australia, Tel: 61 2 6257 7066, Fax 61 2 6257 7063, mailto:paul@xgl.com.au, www.eglnet.com

Belgium

Andre Dewint, S.A. Alpha Pi n.v., Avenue Franklin Roosevelt 74 bte 2, B-1000 Bruxelles, BELGIUM, Tel: +32 2 343 4251 / Fax: +32 2 343 0377, mailto:andewint@vub.ac.be

NTERNATIONAL DOE-2 ENERGY CONSULTANTS (continued)

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,

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:dwtvan@dwtc.bc.ca, http://www.dwtc.bc.ca/

Dr. Stephane Bilodeau, PE, President, Groupe Enerstat, Inc., 125 Turgeon Street, Bromptonville (Quebec), JOB 1H0 CANADA. Tel (819) 846-1040 / fax (819) 846-4036. mailto:ncaldwell@ameresco.com

Gordon Shymko, G.F. Shymko & Associates, Inc., 129 Evergreen Crescent S.W., Calgary, Alberta T2Y 3R2, Canada, mailto:gfshymko@home.com, Tel: (403) 254-4776, sbilodeau@groupeenerstat.com, www.groupeenerstat.com/en/profil

Fax: (403) 254-4795

Michael Wilson, P.Eng. Enerficiency Consulting, 455 Elphinstone Ave., Gibsons, BC, Canada V0N 1V1 Canada,

Tel: 604-886-9864 / Fax: 604-676-2604 fax, mwilson@enerficiency.ca / http://www.enerficiency.com/

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

Germany

Jens Grundt and Ludwig Michel, GMW-Ingenieurbüro GmbH, Boulevard der EU 15, 30539 Hannover, Lower Saxony, Germany Tel: +49 0511 58 59 48 -11/Fax +49 0511 58 59 48 -48 www.gmw-ingenieurbuero.de j.grundt@gmw-ingenieurbuero.de

Ireland

Paul Overy, Overy + Associates, Mechanical and Electrical Consulting Engineers, Gurtnafluer Business Park, Clonmel, Co Tipperary, Ireland http://www.overy-assoc.com/ Tel: +353 (0)52-27667, Fax: +353 (0)52-29238

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/

Switzerland

Markus Koschenz, Building Equipment Section 175, EMPA, 129 Überlandstrasse, CH-8600 Dübendorf, Switzerland

Markus.Koschenz@empa.ch, Tel: +41 1823 5511, Fax: 821-6244

Philip Schluchter, Institut fur Bauphysik Klein, Urs Graf-Strasse 1, CH-4052 Basel, 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.	Quantum Computer Resources	20833 North 1st Street	Phoenix, AZ 85027	(623) 780-3496
drb6@home.com	www.qcr-usa.com			fax: 322-0049
Henny van Lambalgen, P.E.	Quest Energy Group, LLC	4325 East Pierce Road	Phoenix, AZ 85044	(480) 753-5590
henny@questenergy.com	www.questenergy.com			fax: 753-1215
Marlin S. Addison	M. S. Addison & Associates	1215 West 12th Place	Tempe, AZ 85281	(480) 968-2040
marlin.addison@doe2.com		1		fax: 968-2053
California				
Joseph Deringer	The Deringer Group, Inc.	1250 Addison Street	Berkeley, CA 94702	(510) 843-9000
info@deringergroup.com	www.deringergroup.com			fax: 843-9300
M. Gabel, R. Howley	Gabel Associates, LLC	1818 Harmon Street	Berkeley, CA 94703	(510) 428-0803
office@gabelenergy.com	www.gabelenergy.com			fax: 428-0324
Steve Konopacki	sjkonopacki@yahoo.com	2315 Ward Street	Berkeley, CA 94705	(510) 207-9649
George Marton	1129 Keith Avenue		Berkeley, CA 94708	(510) 841-8083
John R. Aulbach, P.E., CEM	jra_sac@yahoo.com	23508 Naffa Avenue	Carson, CA 90745	(310) 308-6695
Leo Rainer	Davis Energy Group, Inc.	123 C Street	Davis, CA 95616	(916) 753-1100
lirainer@davisenergy.com	www.davisenergy.com			
Lisa Heshong	The Heshong Mahone Group	11626 Fair Oaks Blvd, #302	Fair Oaks, CA 95628	(916) 962-7001
Doug Mahone	www.h-m-g.com			fax: 962-0101
Cliff Gustafson,	Taylor Systems Engineering. Inc.	9801 Fair Oaks Blvd., #100	Fair Oaks, CA 95628	(916) 961-3400
Smita Gupta	www.tse-inc.net			fax: 961-3410
Tom Lunneberg, PE	Constructive Tech. Group		Irvine, CA 92618	(949) 790-0010
tlunneberg@ctg-net.com	t.com/en	ergetics/Energetics.Home.htm Dr., #109		
Martyn C. Dodd	:EnergySoft, LLC	1025 5th Street, Suite A	Novato, CA 94945-2413	(415) 897-6400
support@energysoft.com	www.energysoft.com			fax: 897-6422
Jim Kelsey PE, Kevin Warren	kW Engineering	360-17th Street #100	Oakland, CA 94612	(510) 834-6420
kelsey@kw-engineering.com	www.kw-engineering.com			fax: 834-6373
Patrick Nkwocha, PE	Global Tech Services	3360 Foothill Blvd., #108	Pasadena, CA 91107	(626) 583-8205
UPat@worldnet.att.net				fax: 583-8206
John F. Kennedy, PE	GeoPraxis, Inc.	205 Keller Street	Petaluma, CA 94952-3874	(707) 766-7010
info@geopraxis.com	www.geopraxis.com			fax: 766-7014
James Trowbridge, P.E.	Trowbridge Engineering	8240 Caribbean Way	Sacramento, CA 95826	(916) 803-5436
jim@epmaker.com				
Dr. Tianzeng Hong, Eric Kolderup info@archenerdy.com	Architectural Energy Corporation www.archenergy.com/	142 Minna Street	San Francisco, CA 94105	(415) 957-1977 fax: 957-1381
Dr. Magnus Herrlin, Ph.D.	ANCIS. Inc.	http://www.ancis.us/	San Francisco, CA	(see web site)
		-		

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

		\	(commaca)	•
Colorado				
Fred Porter	Architectural Energy Corp	2540 Frontier Ave, #201	Boulder, CO 80301	(303) 444-4149 fax: 444-4304
Susan Reilly denver@enermodal.com	Enermodal Engineering	1554 Emerson Street	Denver, CO 80218	(303) 861-2070 fax: 830-2016
Joel Neymark, PE neymarkj@qwest.net	J. Neymark & Associates	2140 Ellis Street	Golden, CO 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, CO 80477	(970) 870-1710
Connecticut				
Adrian Tuluca atuluca@swinter.com	Steven Winter Associates www.swinter.com	50 Washington Street	Norwalk, CT 06854	(203) 857-0200 fax: 852-0741
Florida				
Philip Wemhoff wemhoffp@buildingsleuth.com	9765 MacArthur Court North		Jacksonville, FL 32246	(904) 645-5342
Dr. Paul Hutchins PE, CEM	Reynolds Smith & Hills, Inc. www.rsandh.com	10748 Deerwood Park Blvd South	Jacksonville, FL 32256-0597	(904) 256-2500 fax: 256-2501
Georgia				
Lung-Sing Wong, PE Iswong@bpe-inc.com	Building Performance Engineers www.bpe-inc.com	3060 Wanda Woods Drive	Atlanta, GA 30340	(770) 270-0100
Illinois				
Gary H. Michaels, PE	G.H. Michaels Associates	1512 Crain Street	Evanston, IL 60202	(847) 869-5859
Prem N. Mehrotra	General Energy Corp.	230 Madison Street	Oak Park, IL 60302	(708) 386-6000
Robert Henninger, PE rhenninger@gard.com	GARD Analytics, Inc. www.gard.com	1028 Busse Highway	Park Ridge, IL 60068-1802	(847) 698-5686
Kansas				
Dr. Brian A. Rock, PE	U. Kansas, A/E Dept, Marvin Hall	barock@ukans.edu	Lawrence, KS 66045-2222	(785) 864-3603
Massachusetts				
C. Kalasinsky P.E.	R.G. Vanderweil Engrs., Inc. www.vanderweil.com	274 Summer Street	Boston, MA 02458-1113	(617) 423-7423 fax: 423-7401
Mark Mullins	Select Energy Services www.selectenergysi.com/	24 Prime Parkway	Natick, MA 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, MA 02062	(781) 769-8773 fax: ***_***

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

	0. 5. DOL-2 LINEN G	CONCOLIANIO	o (continued)	
Minnesota				
Daniel A. Katzenberger, P.E. dan@k-usa.com	Katzenberg USA Inc. www.k-usa.com/	7540 Edinborough Way, 1303	Edina, Minnesota, MN 55435	(952) 893-7379 fax 952-835-1442
Missouri				
Mike Roberts	Roberts Engineering Co.	11946 Pennsylvania	Kansas City, MO 64145	(816) 942-8121
Bruce A. Leavitt, PE	Wm. Tao & Associates Inc.	2357-59 th Street	St. Louis, MO 63110	(314) 644-1400
Montana				
Michael W Harrison, PE	Harrison Engineering	139 Bluebird Lane	Whitehall, Montana 59759	(406) 287-5370
Nebraska				
Philip M. Schreier, PE FEI-OMA@worldnet.att.net	Farris Engineering www.farris-usa.com/	11239 Chicago Circle	Omaha, NE 68154-2634	(402) 330-5900 fax: 330-5902
New York				
Robert E. Gibeault	PB Power, Inc.	1873 Western Avenue #201	Albany, NY 12203	(518) 862-0012
gibeauit@ppwoliu.colli	www.pbwollu.colli			(210) 170 000 (710) 170 0000
J. Fireovid, P.E., K. Yousef, P.E.	SAIC Energy Solutions Div. www.saic.com	421 New Karner Road	Albany, NY 12205	(518) 452-8800 fax: 452-8111
Scott Frank P.E., Konstantin Babets, and Chien Harriman	Jaros, Baum & Bolles www.jbb.com	80 Pine Street	New York, NY 10005	(212) 530-9300
Neville Burrows, P.E., LEED	EME Group	159 West 25th Street, 5th Floor	New York, NY 10001	(212) 529-5969 Fax: 529-6023
North Carolina	-			
Harshad D. Padia, PE, LEED,	Padia Consulting, Inc.	51 Kilmayne Dr. Suite 300	Cary, NC 27511	(919) 481.1777
Adam F. Spach, El, LEED, Russell E. Little, El	www.padiaconsulting.com/about.shtml			fax: 460.8999
Gopal Shiddapur, PE gsshidda@duke-energy.com	DukeSolutions (MC: ST05A) duke-energy.com	230 S. Tryon Street, # 400	Charlotte, NC 28202	(704) 373-4439 fax: 373-4872
Oregon				
Mike Kaplan mike@kaplanengineering.com	Kaplan Engineering	P. O. Box 811	Lake Oswego, OR 97034-0135	(503) 635-5154 fax: 635-5271
Carol Gardner	Gardner Energy Management Services	PO Box 12549	Portland, OR 97212-0549	(503) 223-4847 fax: 223-8486
John P. Karasaki, P.E. john_karasaki@pgn.com	Energy Services Group	16280 SW Upper Boones Ferry Road	Portland, OR 97224	(503) 603-1629
Pennsylvania				
Kimberly Byk, wba@utcorp.com	Wood, Byk & Associates, Inc.	829 Meadowview Road	Kennett Square, PA 19348	(610) 347-0710 fax: 347-0711

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

			(20111111111111111111111111111111111111	
Texas				
Jeff S. Haberl ihaberl@esl.tamu.edu	Energy Systems Laboratory esl.tamu.edu	Texas A&M University	College Station., TX 77843-3123	(409) 845-6065
, Tarek Bou-Saada	bousaada@flash.net	4410 Grand Cayman Drive	Sugar Land, TX 77479	(281) 265-9139
Utah				
Curtis James Clark, P.E.	Clarks Energy Services Corp.	4190 Highland Drive, #101	Salt Lake City, UT 84124	(801) 870-5037 fax (866) 507-7615
Virginia				
Jay Hall	ICF Consulting	9300 Lee Highway	Fairfax, VA 22031	(410) 263-3162
jayhall@icfconsulting.com				fax (703) 934-3530
Kurmit Rockwell, LEED AP, P.E., CEM	ConEdison Solutions	4350 N. Fairfax Dr., Suite 820	Arlington, VA 22203	(703) 875-9458, ext
rockwellk@conedsolutions.com				103, fax 875-8695
Dave Walker	Walker Engineering	P.O. Box 366, 4230 Pulaski Giles	Staffordsville, VA 24167	(540) 921-4544
walkeng@swva.net	www.swva.net/walkeng	Turnpike		fax: 921-4548
Dr. Hosan F. Abaza	mailto:habaza@vt.edu	1405 Bayside Avenue #12	Woodbridge, VA 22191	(703) 498-3084 fax: 550-9755
Washington	,			
Gregory J. Banken, PE	Q-Metrics, Inc.	P.O. Box 3016	Woodinville, WA 98072-3016	(425) 825-0200
gbanken@qmetrics.com	www.qmetrics.com			fax: 825-0136
Wisconsin				
Bill Talbert, M.E.		5802 Research Park Blvd.	Madison, WI. 53719	(608) 441-6677
btalbert@aeieng.com	USGBC LEED Accredited Professional			