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Surviving Utility Deregulation

Prepared by:

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ELECTRI'21

SURVIVING UTILITY DEREGULATION

By Lewis Tagliaferre, C-E-C Group

INTRODUCTION

This volume contains detailed information compiled for this study that is intended for those desiring a comprehensive understanding of the project. It will be a useful reference resource for instructors and industry leaders responsible for planning by associations and their members. The information is organized and presented in several separate appendices. Each one covers a special topic that can be studied independently of the others, or taken as part of the whole.

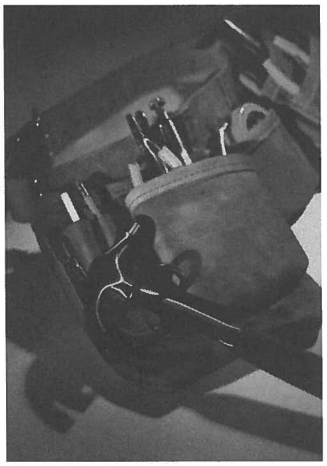
THE ENERGY POLICY AND CONSERVATION ACT OF 1992

The Energy Policy and Conservation Act of 1992 (EPAct) enacted four investor-owned utility provisions that are of paramount importance to electrical contractors.

First: Independent power providers, i.e., non-utility generators, were officially recognized and renamed Exempt Wholesale Generators (EWG), because they were exempted from the Public Utility Holding Company Act of 1935 (PUHCA). Any firm wishing to obtain this recognition was granted authority to market electricity to any wholesale customer outside the normal regulated utility territory anywhere in the U.S. Practically, utilities may now buy power wholesale from any provider nationwide on a competitive price basis. Most investor-owned utilities quickly applied for the EWG classification and obtained the PUHCA exemption. In addition, new independent power providers also joined the market with lower-cost higher- efficiency merchant power plants. Such firms no longer are classified as utilities under controlling provisions of PUHCA. Thus, power generation was deregulated and separated out from the transmission and distribution aspects of utility business in order to induce competition among power suppliers.

Second: EPAct required all owners of interstate power transmission lines to make them available to EWGs for interstate commerce, provided they could charge FERC-approved tariffs for use of available capacity. This interstate transmission of power or so-called "wheeling" converted the previously regulated territories of monopoly utilities into a national marketplace, with no geographical barriers.

Third: By omission of restraint, EPAct permitted so-called "self dealing," i.e., the conduct of unregulated, unrelated business ventures by utility holding companies. Discussion by AC, Inc. Press for the Constructions Research Service described it this way: "H.R. 776 banned self-dealing (transactions between utilities and their unregulated affiliates) while S. 2166 allowed self-dealing



when all affected State utility commissions agree, in advance, that such transactions are in the consumer's best interest. The Senate version prevailed in conference."

This omission means that investor-owned utilities can set up holding companies and freely use their vast financial resources to organize and operate totally unregulated subsidiary business operations, with approval of state authorities. They are doing so with a vengeance. This non-provision of the law poses the greatest threats and opportunities for electrical contractors as it actually encourages utilities to organize unregulated subsidiaries that can bundle unregulated power sales with energy services normally performed by electrical and mechanical contractors. Failure to recognize this challenge until they begin losing customers to the new competitors is possibly the greatest source of pending losses for contractors.

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The findings, opinions, conclusions, and recommendations provided herein are based on independent research, conducted under the auspices of a grant from The Electrical Contracting Foundation's Center for Research Excellence. Information in this publication should not be regarded as an endorsement of the Foundation or its parent organization, the National Electrical Contractors Association.

This report has been made possible through the generosity of the electrical contractors and corporate members of The Electrical Contracting Foundation.

Fourth, EPAct left the possible deregulation of retail competition and operations of distribution systems up to the individual states. Lobbyists for large interstate companies immediately went to work on this challenge and by 1999 all of the states, except for Florida and South Dakota, either had passed enabling legislation or were in some stage of investigation whether to permit consumer's to choose their energy services providers. By mid-1999 24 states had passed legislation invoking a schedule for consumer choice in electric power and related services. Thus was born the new energy services industry. Now, the electrical contracting industry is a subset of this new industry and must restructure itself in order to compete successfully in the next millennium for this portion of their traditional work.

EPAct omitted the municipal power companies and the rural electric cooperatives, but they too have entered the new millennium with plans for diversification to protect their market positions from competition. Some states have required them to develop plans for releasing their customers to competitors. Thus, not only are contractors challenged by new competition from the investor-owned companies, but indeed all electric power entities, including rural co-ops, municipals, and the federal government systems like TVA, Salt River, and Bonneville are actively restructuring to be more competitive with aggressive marketing. Early rulings by the Department of Energy indicate the federal systems will be permitted to sell their excess power into the competitive wholesale markets.

Utilities now can bundle sales of power with products and services through their unregulated subsidiaries, and manufacturers may partner with them to enhance their brand preference. One such example is an agreement between York Air Conditioning, PP&L Resources, Inc., and Viron Energy Services to cross market power and HVAC equipment in eastern Pennsylvania through 600 certified HVAC contractors. In another such partnership, Commonwealth Energy linked up with Siemens Building Technologies to offer energy efficient performance contracts. In still another one, Honeywell formed a partnership with non-profit ElectriCities of North Carolina that represents cities, towns, and universities that own electric distribution systems. It has 89 members in NC, SC, and VA. The two firms will participate in joint marketing activities and customer referrals providing one-stop energy services solutions. The potential threat to traditional electrical/mechanical contractors from new supplier partnerships is potentially severe as unregulated utility subsidiaries may legally compete with them, and by-passing wholesalers with direct purchases.

A DISCUSSION OF UTILITY RESTRUCTURING

There is a broad diversity of electricity suppliers in the U.S. There are regulated electric utilities such as shareholder-owned companies, and there are rural electric cooperatives and government-owned utilities. Government-owned utilities include municipal systems, public power districts, state projects, and federal agencies.

Deregulation of utilities may ultimately create three unbundled businesses: Competitive, unregulated electricity-generation companies will produce the power; federal- and federally-regulated companies will transport it across the grid; and state-regulated monopolies will deliver it on local wires to consumers. Each of these businesses will respond to an entirely different set of motivations and market forces than do today's vertically integrated utilities. Linking them together will be state or federally chartered independent system operators, or ISOs, that will be responsible for the stability of the grid and for ensuring that energy corporations follow market rules.

In the past few years, laws designed to promote competition in wholesale electricity markets have led to the creation of many non-regulated suppliers. These include PURPA-qualifying facilities, EPAct-exempt wholesale generators (EWGs), and power marketers.

The share of nationwide generating capacity from non-utility generators (NUGs) has more than doubled from 3.6 percent in 1987 to 8.5 percent in 1997; in fact, since 1990, NUGs have contributed over half of all new investment in generating facilities. Many of these new power producers are not bound by the same regulations imposed on shareholder-owned utilities. The growth of competition that benefits all consumers, however, depends on the creation of a system where all electricity suppliers play by the same set of rules.

The total number of each supplier (as of September 1998) is shown in the following page.

From daily news releases issued over the Internet, collected and analyzed for several

"In the past few years, laws designed to promote competition in wholesale electricity markets have led to the creation of many non-regulated suppliers."

Shareholder-owned Utilities	223
Cooperatives	929
Municipal Systems	1,874
Public Power Districts	75
State Projects	73
Federal Agencies	16
Non-utility Generators (excluding EWGs)	3,968
Domestic Exempt Wholesale Generators (EWGs)	144
Power Marketers	500

Source: Directory of Electric Power Producers 1998, 106th Edition

months, it is possible to discern a few general trends that expose the strategies of utilities that must now compete with each other for existing and new customers. This analysis will be presented in two parts, the regulated and the unregulated side of restructuring.

Regulated Competition Side-

Although not a priority for this Foundation project, a brief summary of traditionally regulated operations will be discussed. Utility executives are looking at their ability to compete in the separately regulated business groups of generation, transmission, and distribution. A brief discussion of each segment follows.

Power generation is open to competition among exempt wholesale generators under Rule No. 888 and 889 issued by FERC in 1996. There are some 150 companies registered with FERC in this category. The sale of power at wholesale increased rapidly from 27 million Mwh in 1996 to over 845 million Mwh in 1998, according to EEI statistics.

Some states have found it appropriate to order incumbent utilities to sell their generation assets to reduce the amount of stranded cost recovery and, thereby, shorten the phase-in schedule to achieve full open competition. Some utilities have voluntarily found buyers for their generation plants willing to pay prices above book value. For example, PG&E bought all the generation assets of the North East Electric System, and FPL of Florida bought the generation assets of Central Maine Power. Such a transaction seems to be a win-win-win for the seller, the buyer, and local area consumers because it reduces stranded costs and accelerates the transition to competition. Therefore, restructuring likely will continue to see a realignment of generation assets nationwide as some utilities shed unprofitable assets and others seek positions in new geographic regions. Ironically, as generation is split off into competitive entities, utility holding are increasingly seeking mergers and acquisitions in order to aggregate larger economies of scale. This seems to be a return to the large holding companies that existed before the Public Utility Holding Company of 1935 that split them into smaller franchise units.

Nuclear power plants present a special issue in restructuring. Some of the 108 nuclear generators are ready for deactivation and retirement. Although no new ones are scheduled for construction, some operating license extensions have been requested. About 30,000 tons of nuclear radioactive waste is stored in concrete vaults under water at these sites. A law passed in 1982 required the federal government to provide a permanent storage facility for the spent nuclear fuel and take over storage management in 1998. But state politicians in Nevada who oppose the choice have successfully prevented the Yucca Mountain site chosen from being developed and federal delays have stalled the project. Proponents of the Yucca Mountain site say it is a better solution than continued on site storage of spent fuel in concrete vaults.

Although further delays in central storage may force some early retirements of nuclear power plants that would please nuclear opponents, they argue such delays will only increase use of fossil fuels, producing greater quantities of sulfur dioxide, nitrogen oxides, and fine soot particulars that damage the environment and cause climate disruptions. Nuclear utilities have won a court suit alleging breach of contract by the government, but it is pending in appeals. The spent fuel will remain dangerous to human health for 10,000 years and the cost of its safe storage has been estimated up to $50 billion. Those costs must be dealt with sooner or later. Nuclear safety continues to be regulated by the

Nuclear Regulatory Commission. However, DOE estimates it will be 2010 or later before the Nevada site is ready for use. In the meantime, customers of nuclear plants are paying the cost of on-site storage of waste. These, and other environmental issues, make the future of nuclear plants in a deregulated market uncertain.

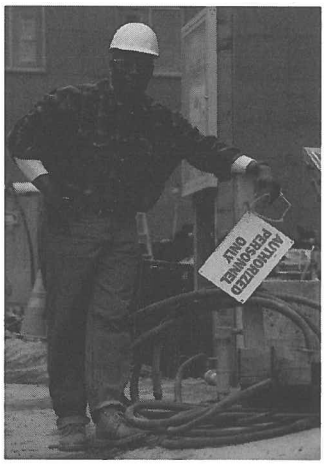
Competitive power generation has attracted many new so-called "merchant power plants" built and owned by exempt wholesale generators for sales of power into purely wholesale markets. The merchant power suppliers have organized the Electric Power Supply Association (EPSA). A full description of the association and its programs is available at the web site, http://www.epsa.org. The EPSA estimates that up to 50,000 MW of new merchant power is under construction or planned. Also, new fuel cell technology is on the verge of commercialization for on-site power generation. The new US Fuel Cell Council was organized in 1998 to help promote the new industry. You can visit its Internet site at http://www.usfcc.com. The Department of Energy wants to double the installed capacity of combined heat and power plants to save some 46 gigawatts of central power plants. They would reduce air pollution by an estimated 40 million tons of carbon, the equivalent of removing 40 million autos from the nation's roadways, and more than double the efficiency of combustion fuels.

Utilities traditionally have shared power surpluses with each other to meet peak demand loads, and sold power to non-generating municipal companies. Now, merchant power is available for sale in wholesale and retail users in the unregulated markets as state by state competition unfolds. The ready availability of non-utility generated power proved to many that the traditional idea that utilities were natural monopolies was obsolete. The price of power under deregulation will be a function of market conditions, fluctuating hour by hour. Several power futures trading exchanges have been organized, including a FERC regulated exchange set up by California. It was funded by the CA incumbent utilities but receives payments from the buyers for current operations. It functions much as the stock markets in setting market clearing prices for power. Membership in the CA exchange is open to exempt wholesale power bidders licensed to operate in the state. Eventually, experts suggest there will be three primary power exchanges located in the East, Midwest, and West. The function of these exchanges is to provide a market for buyers and sellers of power that will equalize supply and demand to set market prices, much like a stock market exchanges.

Onsite generation has been organized into the Electric Generation Systems Association, with a web site located at http://www.egsa.org, and the U.S. Combined Heat and Power Association. New renewable technologies, including fuel cells, wind power, geothermal power, and solar power are becoming more competitive and are expected to play a larger role in the generation market more quickly under deregulation. For all these reasons a survey of utility executives in 1999 by the Washington International Energy Group (WIEG) disclosed that power generation is expected to be the most profitable option for utilities to pursue.

Transmission systems also are being restructured as independent business operations. Tariffs for transmission line services to power marketers are regulated under Rules No. 888 and 889 issued by FERC in 1996. A software system known as OASIS is available on the Internet to enable power shippers to determine the most cost effective routing of power from generating plants to customers. Present rules are criticized because they permit transmission line owners to charge usage fees to wholesale generators based upon load, and that results in so-called "pancaking,", i.e., piling one fee upon another to escalate revenues and inflate consumer costs.

A spirited discussion on the relative merits of competitive for-profit transmission companies versus state controlled nonprofit independent system operators (ISO) is underway. California adopted an innovative approach when it organized a nonprofit Independent System Operator (ISO) that is responsible for operations and maintenance of the intra-state transmission system. The ISO is regulated by the FERC and owns no transmission line assets. In its approval of a Midwest regional non-profit ISO formed by ten transmission-owning public utilities FERC stated, the "ISO will provide substantial benefits to market participants in the Midwest. They state that the elimination of transmission rate pancaking on a regional scale should produce an overall reduction in the costs of transmitting energy within the region. In addition, market participants will benefit from (1) one stop shopping for transmission service, (2) the establishment of uniform and clear rules by the ISO, (3) the separation of control over transmission facilities from marketing functions, (4) large scale regional coordination and



planning of transmission and (5) enhanced reliability. Applicants state that the marketplace will become more competitive with sellers having access to more markets for their products and buyers having greater access to sources of supply."

Several utilities have joined with neighboring firms to propose formation of new regional competitive transmission companies (RTO), some through mergers and acquisitions. In a bizarre financial deal orchestrated by the Arizona Corporation Commission to reduce stranded costs, Tucson Electric Power will take over the transmission lines of Arizona Public Service, while the latter will acquire the generation assets of TEP. Virginia Power has proposed combining its transmission assets with American Electric Power to form a new regional transmission company.

FERC Chairman, James Hoecker reportedly favors mandatory regulations to set up either nonprofit ISOs or for-profit regional transmission companies (TRANSCO) to cover every section of the country. Members of the Commission are split over this issue, with some favoring formation of TRANSCOs and others opposing them because of the perceived business-as-usual monopoly environment they would perpetuate. For any transco to be approvable, Commissioner William Massey has said,

> "There must be a seat at the table for all transmission owners, including public power, the federal power marketing administrations, and co-ops. Show me a transco filing that creates a truly independent entity and eliminates pancaked rates over a region and we'll talk."

In a speech to the Federal Energy Bar Association, Commissioner Curt Hebert said,

> "I believe, although there may be circumstances that require ISOs or other entities, from an economic perspective the most cost-effective and efficient alternative for transmission operation is a transco, a company promoting efficiency through market solutions. And from a competitive policy perspective, the most robust competitive alternative is a transco."

Because of the uncertainties surrounding transmission regulation, the WIEG study respondents rated power transmission with the lowest profit expectations.

Distribution systems are regulated by the states. The points of transfer from transmission to distribution and from distribution to consumer are somewhat murky and rely upon state political decisions. Some utilities have decided to concentrate in this remnant of the monopoly business as it poses the least risk with guaranteed rates of return. It is dubbed the so-called "wires business."

Customers who decline to change suppliers usually will be assigned to the incumbent distributor under state regulated default conditions. Distribution revenue is obtained from power marketers on a fee for service basis, same as local telephone companies. Thus, customers in deregulated states can pay their bills to the incumbent distributor that will then be reimbursed by the power marketers, but the fee collection process could vary from state to state. Metering may or may not be provided by the distribution company depending upon rules adopted by the states. In California, metering is assigned to the unregulated side so customers can receive the benefits of new automatic metering services from competing providers.

In combination with common carrier transmission systems, the ultimate goal of consumer advocates is to enable each and every meter to be connected to each and every power supplier. Because of its low risk and assured return on investment, power distribution was rated most desirable, although not the most profitable, of the options in the WIEG study. Consequently, some utilities have begun to divest other assets and concentrate on power distribution, albeit running "lean and mean" with as much out sourcing as possible. This trend provides increasing opportunities for electrical contractors to profit from distribution system maintenance.

"A national marketplace for power sales and wholesale price competition are reducing margins and returns to utility stockholders, so utilities are organizing unregulated operations to offset their potential losses."

Unregulated Competition Side -

A national marketplace for power sales and wholesale price competition are reducing margins and returns to utility stockholders, so utilities are organizing unregulated operations to offset their potential losses. Restructuring is less about competition for the commodity of electricity than it is about the enhanced value-added energy services offered to business and industry through dynamic marketing. In fact, *power marketers must offer new services to offset losses incurred from the depressed prices for power and losses of customers to competi-*

tors. And, they must advertise their brand names in order to keep or increase consumer awareness and preference.

Utilities are setting up holding companies exempt from PUHCA with new brand names so they can redistribute assets between regulated and unregulated business. This so-called "self-dealing" was authorized by omission of any restrictions in EPAct. Self-dealing must be carefully distinguished between so-called "cross-subsidization." Cross-subsidization is using the resources and public image of the regulated business to obtain an unfair competitive advantage for the unregulated business of incumbent utilities. It should be prevented by state deregulation laws. Self-dealing is legal use of the holding company assets to set up and finance separate unregulated business operations. Their options are limited only by the imagination of utility planners.

Utility holding companies may organize and pursue literally any kind of new business they choose through unregulated subsidiaries. Many strategic planners have been hired from outside the industry to bring innovative ideas to traditional utility executives. One holding company has bought a chain of real estate offices, and another has launched a catalog consumer products business. Several have acquired security and alarm firms. Many are buying electrical and mechanical contractors. Others are targeting telecommunications services, including cable and fiber systems, local and long distance telephone, and Internet access services.

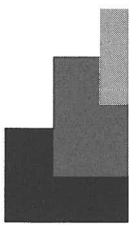
By 1998 more than 40 electric and gas utilities were engaged in the telecommunications market, from leasing lines and towers to offering full-fledged competitive wire services, according to the Telecom Publishing Group division of Aquilian Co., Inc. in Washington, DC. Creative energy-related uses of utility telecom facilities include energy management, automated meter reading, and security monitoring. In California and a few other states, a new servicing infrastructure for supporting electric vehicles is being developed. Some have launched consumer appliance sales, warranty, and service businesses. New Jersey contractor groups have been successful at slowing or deferring this intrusion into their business if it is too tightly connected with regulated utility operations.

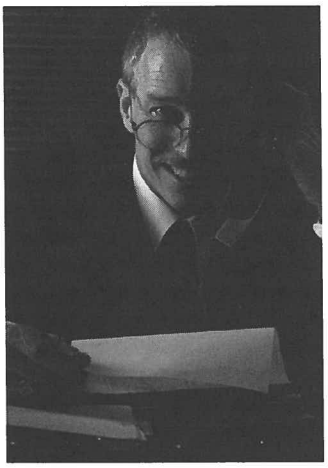
Of course, power marketing is a mainline service being offered as states open retail competition. Each state adopts separate rules and costs for licensing power marketers and other competitive energy services providers . When California imposed a one-time $25,000 bonding fee, the number of competing energy services providers dropped from about 300 to around 30. Pennsylvania proposed license charges of $250,000. The power marketing function was organized into the Power Marketers Association (PMA) in 1994. Full company profiles are found at web site http://www.powermarketers.org. This site includes free daily news reports on utility business and deregulation. It is an extremely valuable service for anyone interested in electric industry restructuring. A subscription web site provided by E Source under contract to the Gas Research Institute also provides detailed company profiles at http://www.cspio.com.

Actually, anyone can sell power in deregulated states. Amway, the international direct door-to-door marketer, joined with Columbia Energy Group, one of the nation's leading energy companies, to bring the benefits of electricity and natural gas deregulation to Georgia and Ohio, with stated plans for national expansion as more states deregulate competition. Together, the companies plan eventually to sell Columbia Energy's natural gas and electricity services to homeowners and small businesses nationwide through the Amway system of network marketing, expanding the program as state deregulation permits. Shortly, additional innovative forms of marketing electricity and related services likely will emerge.

Although utility holding companies can enter any business they choose, the primary unregulated business ventures that impact electrical contractors are security and alarms services, telecommunications, and energy services management with performance contracting. The latter includes financing energy efficiency retrofits from the energy savings achieved. Telecommunications, deregulated in 1996, offers some opportunities for electrical contractors in building and maintaining outside infrastructure, including fiber optics. However, through acquisitions of both union and nonunion firms, unregulated utility affiliates can and are competing directly in the electrical/mechanical contracting business.

Strategies of utility affiliates for operating these unregulated business ventures usually involve several options: 1) internal organization development with appropriate state contracting licenses and union labor agreements; 2) mergers and acquisitions; 3) partnering agreements for outsourcing,





and; 4) conventional subcontracting.

Other Regulated Utilities -

Although they were not covered under EPAct, the municipal utilities and the rural electric cooperatives also feel the sting of competition. Several early adopter states have begun to require them to open their customers to competitive suppliers also. In addition to merging with neighbors to enlarge their territories, they have turned to their respective associations to help them hang onto their customers and develop new services. Some of their activities also potentially impact electrical contractors through acquisitions and more powerful marketing. Two developments are worth describing and including in this report.

Municipal utilities are represented by the American Public Power Association (APPA). It has created a wholly owned subsidiary named Hometown Connections (sm). In turn, this organization has contracted with several providers to enable member companies to offer value-added services to their customers. With the signing of ServiceMaster Energy Management (SEM) and Warrantech Home Service Co., the Hometown Connections(sm) of American Public Power Association enables member municipal utilities to offer the same type of energy services as investor-owned holding companies. SEM specializes in energy load profiles, energy audits, mechanical/electrical upgrades, project financing, supply side negotiations, project design, turnkey construction, and operations management. It has begun to acquire mechanical/electrical contractors to fulfill its obligations.

The SEM parent has facility service managers in 7500 buildings and supports 2,000 customers nationwide. Subsequently, SEM was purchased by the unregulated arm of Texas Utilities. Warrrantech provides repair and replacement for all home appliances including HVAC, electrical, and plumbing. Work may be done by authorized local contractors. Other APPA Hometown Connections(sm) partners include polling research firm, RKS Research and Consulting, IT software from Harris Computer Systems, and meter reading through Itron. The APPA home page is located at http://www.appanet.org. Some municipal utilities are launching their own local ESCO business, with state approval, and some have announced mergers with neighboring "munis" in order to enlarge their operating areas.

Electric co-ops were organized and supported with low-rate federal guaranteed loans to serve small groups of rural constituents that were unprofitable for investor-owned utilities to serve. As such, they only account for 7.9 percent of kilowatt-hour sales and 5 percent of electricity generation, according to the National Rural Electric Cooperatives Association (NRECA). However, they are consolidating and reorganizing to face potential invading competitors and fill regional holes left by departing investor-owned companies. Analysts predict they could add about 16 million new meters to their present 13 million meters. Such expansion would help spread costs across a larger base and possibly reduce prices.

In a strategy to enable co-ops to bundle power with new services, NRECA has organized a subsidiary named Touchstone Energy (sm). This is a national alliance of local, cooperatively owned utilities providing value-added services through brand recognition nationally. Its members include about 470 energy cooperatives serving more than 4 million residential and business customers in 34 states. Some co-ops have begun to acquire electrical/mechanical contractors and also to offer new consumer services in order to hang onto their customers. Some local area co-ops have organized their own alliances to protect their markets from intrusion from outside unregulated utility affiliates. More such alliances likely will be organized to enhance marketing power among smaller co-ops.

NRECA is concerned for the continued supply of economical power to rural customers that might not be profitable for competitive companies to service. It is mounting a national lobby to keep the rural electric co-operatives viable in the deregulated market place. Glenn English, CEO of NRECA, said at its national convention that every effort will be made to enable cooperatives to expand into unregulated business services and to expand territories to cover any areas that are scorned by the investor-owned companies. He proposed that leaders of cooperatives should rally around an "Electric Consumers Bill of Rights" that will help assure all electric consumers are entitled to affordable electric power, self-reliance, economic independence, fair treatment, right of ownership, additional services, and cooperation. You can find more information at http://www.nreca.org.

PRELIMINARY INDUSTRY OPINIONS

Electrical Contractor magazine engaged C-E-C Group to collect opinions from electrical contractors, ESCO managers, and customer members of the Building Owners and Managers Association about the impact of deregulation. The final report was published in December 1998. Many of the respondents expressed uncertainty about the trends involved, but several issues resulted in a majority opinion among each of the groups. These majority opinions helped to determine the hypotheses for this project. They are described as follows: (Courtesy of *Electrical Contractor* magazine.)

Majority Opinions of Electrical Contractors:

A = Deregulated states
B=Regulated states

Contractors need more legal/ legislative protection from unfair utility competition.

	A%	B%
Disagree	16	19
Uncertain	29	20
Agree	55	61

Unregulated utilities likely will look to acquiring electrical/ mechanical contractors.

	A%	B%
Disagree	14	25
Uncertain	32	20
Agree	54	55

Electrical contractors should offer energy management and mechanical services with their electrical services.

	A%	B%
Disagree	18	17
Uncertain	28	26
Agree	54	57

I need more information about the impact of deregulation in my home state.

	A%	B%
Disagree	1	2
Uncertain	30	40
Agree	69	58

Majority Opinions of ESCO Executives:

Energy service providers and power marketers will prefer to acquire electrical/mechanical contractors to perform field services.

Disagree	24%
Uncertain	8%
Agree	68%

Contractors will find welcome marketing allies among service providers as outsource partners.

Disagree	6%
Uncertain	18%
Agree	76%

Utility restructuring resulting from deregulation will be mostly harmful to electrical contractors.

Disagree	74%
Uncertain	17%
Agree	9%

Competition and aggressive utility marketing alliances will result in fewer electrical contractors.

Disagree	56%
Uncertain	12%
Agree	32%

Energy buyers/users will favor electrical contractors who combine power marketing with their facility support services.

Disagree	53%
Uncertain	26%
Agree	21%

Energy service providers recognize mutual benefits in partnering with electrical contractors.

Disagree	6%
Uncertain	20%
Agree	74%

The trend of utility restructuring is likely to stimulate them to organize more unregulated energy services subsidiaries, i. e., ESCOs.

Disagree	9%
Uncertain	12%
Agree	79%

Majority Opinions of BOMA Members

(*Segmented by State)

Utility restructuring resulting from deregulation will be mostly harmful to electrical contractors.

	Disagree	Uncertain	Agree
MA*	62	38	0
PA*	62	24	14
IL*	71	29	0
OK*	55	45	0
CA*	61	32	7
Other*	61	36	3

Unregulated utility energy service subsidiaries are seriously threatening the market position of electrical/mechanical contractors.

	Disagree	Uncertain	Agree
MA*	62	38	0
PA*	62	24	14
IL*	71	29	0
OK*	55	45	0
CA*	61	32	7
Other*	61	36	3

Facility owners/users will favor electrical contractors who remain independent of utilities.

	Disagree	Uncertain	Agree
MA*	1	24	5
PA*	12	15	73
IL*	10	29	61
OK*	0	25	75
CA*	6	32	62
Other*	10	23	67

Facility owners want electric power and electrical/mechanical services bundled from a single supplier.

	Disagree	Uncertain	Agree
MA*	70	20	10
PA*	50	18	32
IL*	48	23	29
OK*	35	25	40
CA*	74	10	16
Other*	57	7	36

"Each month more states are added to the roster of those passing deregulation legislation."

Electrical contractors should offer energy management and mechanical services with their electrical services.

	Disagree	Uncertain	Agree
MA*	9	19	72
PA*	18	12	70
IL*	13	23	64
OK*	30	15	55
CA*	23	13	64
Other*	37	13	50

My firm would favor contractors with skills in proposing and conducting performance contracts for energy efficiency retrofits.

	Disagree	Uncertain	Agree
MA*	0	24	76
PA*	3	18	79
IL*	10	10	80
OK*	15	25	60
CA*	13	13	74
Other*	14	17	69

I need more information about the impact of utility deregulation in my home state.

	Disagree	Uncertain	Agree
MA*	19	6	75
PA*	15	18	67
IL*	21	14	65
OK*	42	21	37
CA*	37	0	63
Other*	22	11	67

Preference for type of contractors:

	Union	Nonunion
MA*	31	69
PA*	56	44
IL*	80	20
OK*	21	79
CA*	50	50
Other*	64	36

STATE CASE STUDIES

Each month more states are added to the roster of those passing deregulation legislation. The selection of five states for case studies was based on many criteria including economic diversity, progress in deregulation, activities of competing energy services providers, and response of the NECA chapter organizations. The five finalists were: Maine, Pennsylvania, New Jersey, Ohio, and California. The case on Maine was prepared by Susan F. Greenwood of the University of Maine, and the other cases were prepared by Joseph A. Salimando of EFJ Enterprises. Taken all together, these case studies provide a comprehensive lesson in the progress of deregulation as well as the diversity of issues facing electrical contractors from coast to coast.

MAINE

As Maine prepares to offer electric power through open competition, beginning March 1, 2000, utility restructuring poses both advantages and disadvantages to electrical contractors. Based on my experiences in the following report, I recommend that NECA member companies designate an employee to monitor and report on daily activities in restructuring/deregulation at both state and national levels. Specifically, contractors need to know the status of restructuring in their states, the provisions of applicable laws, and the activities and rulings of the public utility commissions and of the state legislatures. Contractors also need to be aware of activities in other states and the resulting mergers and acquisitions that are rapidly occurring.

Most contractors are too busy, and perhaps too comfortable and complacent, to understand the urgency of keeping abreast of the tidal wave of change in the electrical utility business, and many do not understand how to access the vast amount of information available on Internet web sites. Companies designating an employee, rather than relying on outside help, such as I attempted to provide, will be more successful since that employee will

have a vested interest in the whole process. NECA needs to train these employees in the new information technology. At this time comfort and complacency represent a threat to the traditional contractor. Knowledge and innovation represent opportunity.

An Overview of Restructuring in Maine (1)

Electric utility restructuring is intended to mean increased savings and choice of service for residential and small business retail consumers in Maine. Restructuring, however, can mean a considerable amount of confusion with possibly not much savings, especially if consumers are not well educated in the intricacies of the process. The purpose in listing the following anonymous quotes from knowledgeable Maine people is to demonstrate the urgency of the situation to consumers :

"The situation is very complex, and unless consumers are educated, they will not understand the situation." "It will take several years for the [competitive] market to develop." "I don't know how this [restructuring effort] is going to work. There are too many pieces.""This is a new situation. No one has ever bought and sold electricity like this before." "No one knows the risks." "People don't know what they are doing." In order to understand these reactions, we need to take a quick look back at the history of restructuring.

The trend toward utility competition was initiated with the OPEC oil embargo of 1973 which stimulated passage of the Public Utility Regulatory Policies Act of 1978 (PURPA). It culminated in the Energy Policy and Conservation Act of 1992. The EPAct exempted wholesale power generators from the Public Utility Holding Company Act of 1935 and established rules for creating a national power wholesale market. EPAct also enabled utilities to transfer their assets to holding companies and set up unregulated subsidiary operations, so called "self dealing." Local monopoly franchises were replaced with a national marketplace for energy services bundled with power sales.

The emergence of these new energy service companies (ESCO's) can affect both positively and negatively Maine residents as well as other groups, for example, small retail consumers, electrical contractors, and graduates of the state's university system who will join the labor pool. In their summary of the evolution of Maine's electric utility industry, Lee and Hill (1995) note that the transition from an electrical monopoly towards an industry with significant competition was driven by two events: 1) the overestimation of the growth in demand for electricity; and 2) the erratic price of oil.

These events pushed Maine toward the 1997 passage of Title 35_A of Maine Revised Statutes Annotated, Chapter 32, Electric Industry Restructuring, with two major general provisions: 1) the establishment of retail competition for the purchase and sale of electricity beginning March 1, 2000; and 2) the preservation of the Maine Public Utilities Commission's (MPUC) regulation of transmission and distribution services.

The three major electric utilities in Maine__Central Maine Power, Bangor Hydro_Electric Company, and Maine Public Service__were forced by the state restructuring law to sell their generating assets to unregulated companies and to be regulated in the transmission and distribution of electricity (sometimes referred to as T&D or "wires" companies or more formally as local distribution companies__LDC).

A major issue became that of "stranded costs," those costs previously incurred for generating assets which would not be profitable under competitive prices. What to do with this expense became an important consideration for most utility companies. Maine addressed the problem in restructuring law by allowing the MPUC to provide "a reasonable opportunity to recover stranded costs through the rates of the transmission and distribution utility" at the startup of retail access to electric power.

At present Maine is somewhat uncomfortably poised on the eve of restructuring. We say "uncomfortably" because two major issues remain to be resolved between now and March 1, 2000, when open competition for marketing retail electric power begins.

*** First, what will be the outcome of the bids for standard_offer service? The standard_offer service, sometimes called the default provision, will be the electric rate for those consumers who do not choose a competitive service provider (CSP). The development of healthy competition in Maine may well depend on the bids chosen by the MPUC.

*** Second, will the consumer education plan be effective in educating consumers throughout the state? The MPUC has already begun the process through itemized billing, which began in January, 1999. An extensive plan to educate con-

sumers through direct mail, media advertising, website, and community outreach, is now in operation with a budget of $1,423,000.

What is the Standard Offer Service?

The standard offer service, also called the default provision, is the option customers will select if they choose not to buy their power from a competitive provider. Different states have different ways of offering this provision. Massachusetts, for example, chose to have one set rate for all customers. In contrast, Maine has a more complex system, which is divided into three major categories__residential and small residential, medium nonresidential, and large nonresidential. The system, designed by the Maine Public Utilities Commission (MPUC), will send out a request for proposed bids August 2, 1999. MPUC will choose three or more firms to provide standard offer service in CMP's, BHE's, and MPS's, the investor_owned utilities. The consumer_owned utilities may conduct the bidding process themselves. Bids need to be in by October 1, 1999, with a decision made by December 1, 1999.

This waiting period buys time for the consumer to become more knowledgeable, since some retail marketers may wait to find out what the standard offer is before selling power in Maine. So it is difficult to know whether or not residential and small retail consumers will benefit from the potential competition. And it is difficult to know whether there will be enough firms to provide healthy competition. Among knowledgeable Maine energy providers and policy makers, opinions differ about the standard offer. Representative anonymous quotes from our interviews follow:

"There is a lot of nervousness [about the standard offer]."

"Most people are happy about the standard offer. It is involved and stringent. MPUC will do a good job."

"The issue is very complex. The individual customer will have a hard time understanding the situation and may not save much money."

"The standard offer put out to bid will kill the smaller firm."

"The residential market may be worse off with different standard offer rates than if the state had one rate for all classes of customers."

Only time will tell whose vision is more accurate. The complexity of the standard offer is one of many issues dealt with in the Comprehensive Plan of MPUC's Consumer Education Plan (CEP).

MPUC's Consumer Education Plan (web site http://www.pucfact.com)

The CEP is an impressive document detailing over two years' worth of educational activities to inform Maine citizens of the intricacies of electric utility restructuring. Major target audiences include residential customers, especially the low income, elderly, hearing impaired, and geographically isolated; small commercial consumers including the nonprofits and churches; and municipalities. The CEP notes that most of Maine's businesses are small to medium_sized and often have fewer than fifty employees. However, since the combined individual memberships of Chambers of Commerce are in the hundreds of thousands, Maine's small businesses, if informed early on, can make sound economic decisions for future electricity purchases.

The first and second of four phases of planning activities have already occurred with the initial marketing research and with the introduction of itemized billing. The important third phase begins in March, 2000, with the implementation of electric choice. Activities during this phase were listed earlier. Finally, the fourth phase will consist of post campaign evaluation and ongoing support.

Beginning in January, 2000, the CEP will feature a presentation entitled "Choice Month is Coming__Here's Help," and from March, 2000, to January, 2001, the next presentation will be, "Choice is Here__What You Need to Know." In September, 1999, the MPUC will begin periodic mailings of events calendars.

The initial findings of the CEP reveal low levels of awareness coupled with concern about the reliability of service and cost. A focus group in northern Maine expressed concern that that area of the state might not receive appropriate attention. For all focus groups, according to the CEP, "the most confusing element of restructuring is the belief that if no action is taken by the customer, nothing will change." The CEP continues, "Consumers must be shown that with electric choice, taking `no action' will result in accepting the `default' standard offer service."

In addition, the MPUC will emphasize that any benefits to the consumer will evolve over time rather than being instantaneous. Still, some consumers may realize immediate bene-

"The residential market may be worse off with different standard offer rates than if the state had one rate for all classes of customers."

fits, especially if they are able to aggregate loads into a buying group for economies of scale. We now define and discuss that important option.

Aggregation: A Valuable Consumer Option

Aggregators are entities that cluster customers into a buying group (aggregation) for the purchase of a commodity or service. The vertically integrated investor_owned utilities, municipal utilities and rural electric cooperatives have previously performed this function. In today's restructured power market, other entities could perform this function. Residential and small commercial individual users may not be profitable for energy suppliers at the market clearing competitive price. In order to increase their negotiating clout, fragmented residential and small commercial users may be clustered into aggregations to serve as buying groups representing their individual members. The "aggregator" is the legal entity forming the "aggregation." An aggregator could be a local Chamber of Commerce, a church district, a home owners association, a city government, or school administration, etc. However, after an aggregator signs a contract with a competitive supplier, then all its members may be obligated to use that supplier for the term of the contract, unless it is made a voluntary transaction. The MPUC through its CEP plans to distribute a brochure on aggregation in August, 1999.

In Maine, Energy Atlantic, LLC (Presque Isle), (http://www.energyatlantic.qpg.com) SYNERNET, Inc. (Portland), Weil and Howe,Inc. (Augusta), and Maine Health and Higher Educational Facilities Authority (MHHEFA), d/b/a/ Maine PowerOptions (Augusta) are already licensed as aggregators/ brokers. Through MHHEFA, all health and higher education facilities are eligible to join, and a bill is before the legislature to admit all other nonprofits, such as churches. The legislature, however, has reversed its earlier policy of allowing individuals who work for those facilities to join also. According to Stephen Gauthier of Maine PowerOptions, MHHEFA began aggregation with heating oil in 1998 and will begin electricity aggregation as soon as possible.

Annette Arribas of Energy Atlantic notes that residential customers won't benefit much from restructuring unless they can join an aggregation. Echoing that sentiment is Douglas Stevenson of Energy Options Consulting Group, LLC, formed about two years ago and under MPUC licensing review. He emphasizes that unaggregated consumers must understand the metering and billing procedures. These procedures, addressed in the restructuring Law, are also subject to competition, but the MPUC will "establish minimum standards necessary to protect consumers of these services and codes of conduct governing the relationship among transmission and distribution utilities providing electric billing and metering services." Stevenson's comments highlight the complexity of the situation for the unaggregated consumer.

A Survey of Maine Electric Retail Marketers

C_E_C Group of Springfield, VA, in conjunction with the University of Maine's Department of Sociology conducted a survey of the MPUC retail competitors prior to the registration deadline of April 23, 1999. (The survey questionnaire is appended.) The results present a forecast of what consumers might expect to be offered and what sales promotion tactics will be used. The list of new services planned to be offered by retail competitors, in addition to competitive electric power sales (6), includes:

- Energy usage audits and efficient equipment retrofits (3)
- Financed through performance contracts (2)
- Energy system leasing, operation and maintenance (3)
- Power quality and reliability improvements (2)
- Telecommunications services (1)
- Real time pricing (1)
- Security alarm systems (1)
- Energy information including usage analysis, consolidate billing, and automatic metering (4).

These services will be augmented with facilitating groups of customers to be aggregated through their memberships and common interests such as Chambers of Commerce, building operation and management associations, church groups, residential associations, etc. Although the primary marketing emphasis will be on larger industrial/commercial users, residential and small commercial customers will also be targeted to a lesser extent. Not all competitors will be offering all these services, so buyers will have to evaluate carefully all offerings to find the best combination for their needs.

The marketing communications tactics the retail competitors reported they will be using include:

- television and radio advertising (1)
- print advertising (2)
- direct postal mail (4)
- email campaigns (2)
- telemarketing (3)
- Internet web sites (3)
- personal selling (4)
- speakers bureaus and trade association newsletters (1)

Seven power marketers in Maine reported they would implement new customer services primarily through negotiated partnerships or competitive bids to electrical contractors. Only one reported plans to develop an in house workforce. They preferred a nonunionized over a unionized workforce by a factor of three to one. None reported that they were planning to acquire electrical/ mechanical contractors.

However, analysis of the holdings of CMP Group (http:// www.cmpgroup.com/holdings/ UWP.html) reveals that a major unregulated subsidiary, the Union Water_Power Company, has four principal business units including Combined Energies which "provides integrated energy solutions to large federal, institutional, commercial, and industrial customers." In fact, as of June 15th CMP Group was sold to Energy East of New York state. I inquired about the future of Combined Energies and was told by David Flanagan of CMP that CE will continue to grow and to serve the government, Navy, and the University in its work. He sounded very definite about its expansion.

Companies like Combined Energies are the new energy services companies (ESCO's) that can potentially threaten the customer base of traditional contractors, or supply significant subcontracting opportunities for them. A major goal of the pilot project, therefore, was to make contractors in Maine aware of the possible damage to existing lucrative business relationships by unregulated utility affiliates who would employ aggressive marketing strategies to lure customers away from their former contractors.

Consumers probably will begin to see and hear more marketing communications than they are used to which will attempt to 1) persuade them to stay with their traditional, dependable utility provider or 2) switch to a new ultra_modern high_tech company offering unique and attractive products and services. Possibly not so obvious is the fact that present utilities will either do all they can to hold onto their existing customers, expand operations to capture new customers in a wider geographic territory, or both. In any event, the local established utility will probably gain greater acceptance. Not all competitors will be using all media, so consumers may only get messages from selected competitors if they are not tuned in to all the communications options mentioned above.

Who Are the Major Players in Maine?

The major players can be divided into three groups: people who have been associated with some form of the electric utility business in Maine, those who are coming into the state because of restructuring, and a combination of people from both groups. The first group includes the legislators, the Public Utilities Commission, the former utilities who will now just transmit and distribute power (the T&D or "wires" companies), new Maine_based retail marketing companies and Maine businesses, including electrical contracting firms that may retain their market share or may be "rolled_up" or consolidated by national brand name firms.

The second group includes what some call the "invaders," those national brand name companies selling both wholesale and retail electric power. Wholesalers are the companies who have purchased generation assets. FPL Group (Florida; web site is http://www. fplgroup.com), for example, purchased CMP. WPS Power Delivery, Inc. (Wisconsin; web site is http://www.wpsenergy. com), purchased MPS. PP& L Group (Pennsylvania; web site is http://www.ppl_inc.com) is in final negotiations to purchase BHE and has formed a subsidiary, Penobscot Hydro, LLC, which will actually own the assets.

Marketing retail power from an out_of_state base are powerful companies such as Enron, which owns $30 billion in energy related assets; develops, constructs, and operates energy facilities; and offers risk management and financial services all over the world. Enron has been licensed to market retail power in Maine by the MPUC. Readers may find more information about Enron at http:// www.enron.com.

The third group includes the regional regulatory agencies such as the proposed regional transmission operators (RTO)

and the independent system operator (ISO). Such groups include both in_ and out_of_staters. In New England is the ISO_NE, which ensures reliable power by monitoring market conditions and the electric power bidding process. One Maine consultant said, "The function of ISO_NE is to ensure confidence at grid level by removing any perception of favoritism." Starting on May 1, 1999, ISO_NE began offering real_time power pricing. Through this mechanism power can be purchased at a set price, either day_ahead or hour_ahead. ISO_NE will oversee most of Maine, with the exception of the northern part of the state. Northern Maine's power reliability will be governed by the emergent Independent System Administration (ISA), so called because the area of Maine formerly served by MPS is not presently connected to the New England grid.

Unregulated affiliates of incumbent utilities in Maine have an advantage over out_of_state competitors, according to an energy consultant working in several New England locations. Those firms coming "from away" will be competing with well_established knowledgeable Mainers. Thus people coming into the area may be unaware of the local "rules." This is the latent policy level, that unwritten protocol of how to do business__with whom do you speak first, whose opinion needs to be solicited, and who shouldn't be ignored. While Mainers have confidence in the people they know and work with, for out_of_staters New England is like a "foreign country," according to the consultant. The task for policymakers then is how to account for this subjective level: Will policies designed to benefit Mainers scare away what might be healthy competition, for example?

Response of Electrical Contractors

On March 26, 1999, I began an effort to pilot_test responses to proposed strategic options concerning utility restructuring by electrical contractors in the state of Maine. These options were gathered and summarized by Lewis Tagliaferre in his report, "Surviving Utility Deregulation." After consultations with the Boston NECA chapter manager, a NECA field representative, and others, Tagliaferre and I decided to select one of the larger and more successful electrical contracting companies in the state. The company CEO is on the NECA chapter board, and the company has enjoyed a beneficial relationship with a regional electric utility provider until restructuring occurred.

Through the NECA field representative an interview was arranged with company officials. My first meeting on April 13th took place without the field representative present, as he had an unavoidable conflict. Prior to the meeting I had sent the company a preliminary summary of Tagliaferre's report outlining the national survey responses of electrical contractors to the restructuring/ deregulation issue. I explained that I wanted to get opinions on what strategic options would be valuable for the company and that I would try to get whatever information they needed, if possible. Officials noted that the first two identified strategies, developing innovative marketing ideas and gaining information about the current law, were important. As well, they were interested in the possibility of developing intrastate lobbies (No. 5 on the contractor response list). They made it clear that they considered themselves partners, albeit informally, with the Central Maine Power company, who had at that point retained transmission and distributions functions as well as related operations, including an unregulated energy services company. (On June 16th the entire holdings were purchased by a New York_based company operating in the eastern region of the United States.) As this trial meeting ended, it was clear that specific information about how the utility and its subsidiaries were operating would be very much valued by the contractor.

Meeting with the field representative on April 20th , I conveyed the gist of the meeting with the company. The field representative thought it unlikely that the company officials would respond very much to the manual. He certainly felt that the preliminary summary was enough for them and that a longer manual would not be read. We agreed on a date when both of us could meet with the company. Ultimately, the date was changed three times before we all met again on May 14th.

Prior to the May 14th meeting the field representative and I conferred by telephone. He said that we should just "feel out" the company and that they themselves needed to decide that there is a problem. Otherwise, no action would be taken. I reiterated that my task was to get some feedback to Tagliaferre on the company's response to the strategic options listed in the manual and that Tagliaferre was concerned that NECA be proactive in regard to the possibly risky situation with contractors. The representative said he believed that chapter officials were proactive and "pretty much aware."

SURVIVING UTILITY DEREGULATION

The May 14th meeting proved disappointing in regard to in_depth consideration of the previously identified strategic options for contractors, though some were discussed. At one point I attempted to get officials to comment on each one, but that procedure was side_stepped. They again affirmed their "partnership" with the utility. The issue of one of the utility's holdings and its possible subsidization of other operations was raised. Noted particularly was the possible intermingling of equipment, personnel, and payroll services. Concerning the possibility of roll_ups as a threat to contractors, one official noted that "roll_ups are not happening in New England." He mentioned a particular situation in Kansas City with Nationwide Power and Light and said that "their goal is not to buy contractors." This official believes that an out_of_state company's purchase of the generating assets of the utility means more work for his company because the purchaser "is cutting people, cutting shift work, and cutting maintenance."

Officials reiterated that they wanted to know what the utility can and can't do, especially in regard to the regulated and unregulated parts. The field representative offered the possibility that NECA could sponsor some sort of information gathering session that would not specifically put the spotlight on the utility and its operations. One official also mentioned the importance of lobbying. The field representative noted that NECA has a national lobbying person and that at the state level there are legislative alerts to be considered. He reminded the company that Tagliaferre had been warning of the potential problems to contractors through deregulation for the past ten years.

n summary, company officials concluded that the most important issues to them were 1) a source of reliable information; and 2) maintenance of existing labor laws.

After hearing a summary of this meeting, Tagliaferre realized that I had not emphasized the important point of alerting the company to the activities of an unregulated affiliate of the utility. Consequently, I called the affiliate to find out what their contracting plans were. I was told that the affiliate will not market power but will do their site work through some competitive bidding with local contractors. They also plan to offer energy efficient services and performance contracts, among other things. I sent this information to the company officials as part of a memorandum that also contained a complete listing of the utility and its subsidiaries, informational web sites, and the results of the survey of companies registered to market retail power in Maine. In addition, I made the suggestion that someone in the company office keep track of updates on both state and national levels by accessing relevant web sites.

As a follow_up I contacted a former administrator and a lobbyist for the utility. I sent the results of these conversations to the company. The lobbyist noted that the unregulated affiliate has managerial expertise and that they might possibly expand into other states, which of course they have already done. He noted that price was the bottom line and that while local knowledge and trust are important, being local is only an advantage if the price is right. On June 14th I called the field representative to see whether or not he had heard from the company. He had heard nothing and said the lack of response confirms his earlier prediction that company officials "were not concerned" with any potential threat to their contracting business. However, as a result of four area chapter managers' concern about potential problems for contractors, the field representative is attempting to coordinate an informational meeting to which I shall be invited.

In light of the lukewarm response from the first electrical contracting company, Tagliaferre and I decided it would be a good idea for me to contact some other NECA electrical contractors in the area of Maine where I am located. On May 20th, I sent these firms a memorandum with the preliminary summary of the manual. Next, I followed up with telephone calls. One company president relayed through his secretary that he had been too busy to read the report. Another was also busy but somewhat interested. He said he would call me back at some point. A third, however, is currently refitting a building complex at the University of Maine with a fire alarm system and was available to talk briefly. He exhibited a great deal of enthusiasm about discussing the restructuring issue and the implications for electrical contractors. He noted the current uncertain situation in the state and seemed to be reasonably familiar with the restructuring law and related issues of standard offer service and the marketing of retail power by ESCO's.

Conclusion

In conclusion, the four electrical contracting firms I contacted are now more aware of the restructuring situation in Maine, but I cannot report they are highly motivated to implement the strategies recom-

mended by the manual. There is truth in the adage, "Some people will not change until it hurts too much not to." I hope that I can continue as a liaison for any NECA contractor in the area who needs more information concerning state and national restructuring activities. I am grateful for having had the opportunity to become educated about electric utility restructuring through this project. Links to web sites:

Utilities:

- Central Maine Power (www.cmpgroup.com)
- Combined Energies (www.combinedenergies.com) (ESCO)
- Bangor Hydro_Electric Company (www.bhe.com)
- Maine Public Service (www.wps.energy.com)

Power Marketers:

- FPL Group (www.fplgroup.com)__purchaser of generation assets of CMP
- WPS Power Delivery, Inc (www.wpsenergy.com) __purchaser of generation assets of Maine Public Service
- Energy Atlantic (www.energyatlantic.qpg.com) (ESCO)
- PP&L Group (www.ppl_inc.com)__purchaser of generation assets of BHE
- Enron (www.enron.com) __only national company licensed in Maine to date
- Maine PUC: MPUC (www.state.me.us/mpuc/homepage/htm

SURVEY OF REGISTERED RETAIL ELECTRIC POWER MARKETERS IN MAINE

1. Does your company plan to conduct a public marketing communications program in the state of Maine?

   _____ yes _____no

1(a). If yes, please check mark all the methods you intend to use from the following list.

_____ Bill Boards
_____ Television ads.
_____ Print advertising
_____ Direct Postal Mail
_____ Personal Selling
_____ Telemarketing
_____ Internet web site
_____ Email campaign
_____ Other _____

2. Please check mark each of the following services your firm will be offering to consumers in the state of Maine.

_____ Consumer appliances and warrantee services

_____ Energy efficiency equipment and services, e.g. audits, retrofits

_____ Performance contracts

_____ Energy system leasing, operation, and maintenance

_____ Commodity power sales

_____ Power quality and reliability improvements

_____ Telecommunications services

_____ Real time pricing

_____ Security alarm systems

_____ Energy information, e.g. usage analysis, consolidated billing, automatic metering

_____ Other _____

3. Please apportion your marketing priorities by assigning a percentage of effort to the following customer groups (total should equal 100%)

_____ Industrial
_____ Commercial
_____ Institutional
_____ Residential

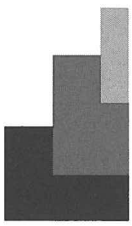
3(a). Please check if your marketing plans include customer group aggregations.

____yes ____no

4. Please check mark the option(s) below that best describe(s) your strategy for implementing any on-site energy retrofit/maintenance work that you expect to sell to consumers

_____ Negotiated partnerships with selected electrical/mechanical contractors

_____ Competitive bid subcontracts to electrical/mechanical contractors



_____ Acquire electric/ mechanical contractors (or use contractors previously acquired)

_____ Develop in-house corporate work force

4.(a) Check whether you prefer a unionized _____ or non-union work force _____.

5. Would your firm participate in a state-wide consumer information conference and exhibit to help launch consumer choice, sponsored by the University of Maine?

_____yes _____ no

6. Below, please write the best and worst provisions of the Maine utility deregulation legislation (Title 35_A) that will impact your marketing plans in this state.

Best provision:

_____
_____
_____
_____
_____
_____

Worst provision:

_____
_____
_____
_____
_____
_____

If you consent to a personal telephone interview regarding electric power competition in Maine, please provide your name and phone number, plus a day/time when it would be convenient to talk for approximately 15 minutes. No comments will be published without your approval.

Name_____
Phone:_____
Date/time:_____

For questions, please call me as follows: Susan F. Greenwood, 207-581-2394. Please fax back your response as soon as possible to 201-581-1762. Thank you very much.

PENNSYLVANIA

There's probably more interesting - fascinating, even - news on electrical industry deregulation emanating from Pennsylvania than from any other state. While that does not make the Keystone state "typical" of what is happening, or will happen, in every local area, it certainly provides nightmarish scenarios worth pondering by electrical contractors and those seeking to advance their industry. Whatever happens in a big state would, of course, be interesting. What follows is background on what's happening in Pennsylvania, with case studies of several aggressive energy marketers - who are selling energy, in some cases, by competing with electrical contractors.

Pennsylvania has 12 million residents, according to the U.S. government, and 5.4 million power buyers (according to the state government). But in deregulating electricity, Pennsylvania has become "the wild west." A phased approach was planned, and the response was enthusiastic: nearly 1 million residents signed up for pilot programs that began in November 1997 (with only 230,000 slots available); nearly 2 million enrolled in a July-December 1998 expansion. Deregulation has broadened greatly in 1999: two-thirds of the state's electricity consumers (or 3.5 million power buyers) can now switch suppliers.

Gov. Tom Ridge has been the leading deregulation advocate in the state. His office claims the state's power customers will save at least $458 million on their electric bills in 1999 "due to guaranteed rate cuts," and the governor has been active on other fronts (for example, proclaiming June 1999 as "Electric Choice Month"). Among the state government's activities: **a letter to 5 million customers** from the state PUC chairman, dated June 5th, encouraging customers to explore available options - and providing an updated list of electric suppliers and price-to-compare information!

The results, thus far, for the incumbent electrical utilities, as reported on the state's Consumer Advocate website (updated for April 1, 1999) are shown in the next page.

These are not small potatoes. According to the Consumer Advocate data, the switchers (in aggregate) represent a total load of 6,959 megawatts (mW), broken down as follows:

Residential: 822 mW

Commercial: 2,737.5 mW

Industrial: 3,559.6 mW

Industrial consumers not only represent most of the load that has found a new home, they also are the most aggressive switchers. According to the Consumer Advocate data, almost every utility on the list (save UGI) has lost industrial customers in double-figure percentages, ranging from 9.4% of PP&L's previous industrial customers to 55.9% of PECO Energy's industrial base. Figures are less dramatic on the commercial end; residential customer switching has thus far been limited.

"There's probably more interesting - fascinating, even - news on electrical industry deregulation emanating from Pennsylvania than from any other state."

Percentage of Customer Load (MW) Served by Alternative Supplier as Of 4/1/99

	TOTAL	Residential	Commercial	Industrial
Allegheny Power	14.2%	1.4%	20.5%	24.4%
Duquesne Light	21.2%	13.1%	36.7%	7.8%
GPU Energy	42.4%	5.7%	50.9%	76.4%
PECO Energy	34.6%	14.5%	34.9%	52.5%
Penn Power	14.5%	6.3%	12.0%	37.0%
PP&L	18.0%	2.5%	30.3%	39.9%
UGI	4.9%	n/a	n/a	0

With industrial and commercial consumers as targets, many energy marketers are engaging in the practice of bundling services with power sales. These serves, as delineated below, include those normally offered by electrical contractors.

Moreover, data above comprises only the pre-existing energy marketers in the state. According to reports, upwards of 30 companies were actively marketing electric power (and allied services) in Pennsylvania as of early 1999; the state PUC's website lists more than 80 companies supposedly licensed to market energy in the state, in a table reportedly updated in late May. According to the Energy Informer, a monthly newsletter:

> "So who is wooing these customers away from the incumbent suppliers? Over 70 competing suppliers are now active in Pennsylvania. By all counts, the most successful and well-trenched among them is Exelon Energy, an affiliate of PECO Energy. This must be music to the ears of the parent company, since Exelon's gains reduce the shock of losing so many of PECO's customers.
>
> "Conectiv and affiliated of PSE&G, PP&L, and Allegheny are reported to be doing well, more or less in that order. A couple of other players, notably New Energy Ventures and Green Mountain Energy Resources, are also active. The remaining suppliers are niche players, are in the game for the fun of it, or to learn how the game is played."

Number of Customers Served by Alternative Supplier as of 4/1/99

	TOTAL	Residential	Commercial	Industrial
Allegheny Power	11,745	7,822	3,894	29
Duquesne Light	75,883	68,762	6,915	206
GPU Energy	52,824	34,886	46,520	1,418
PECO Energy	205,927	172,342	31,753	1,832
Penn Power	9,335	8,100	1,172	63
PP&L	37,835	22,233	15,093	509
UGI	2,338	2,222	116	0
TOTAL	395,877	316,367	75,463	4,057

Some of these companies were offering contracting services, including electrical and mechanical contracting, maintenance, and energy performance contracting, in packages with electricity sales. A select few of these energy marketers (Exelon and Conectiv in this section, as well as New Energy Ventures in the California section) are profiled in this report.

Associations as aggregators

What's more, state business associations were serving as power-buying groups, or "aggregators" of energy demand. These associations included:

- Building Owners & Managers Association of Philadelphia (see details under Conectiv heading);
- Pennsylvania Chamber of Business and Industry (5,600 members) selected PP&L EnergyPlus;
- Graphic Arts Association (300 printers), based in Philadelphia, which selected PP&L EnergyPlus;
- Pennsylvania Retailers Association (30,000 establishments) picked New

Energy Ventures;

- Manufacturers Association of Northwest Pennsylvania (Erie), with 6,500 members in 17 counties.

Other examples could be cited here. In each case, the associations selected a "preferred" energy supplier, and provide members with discounted prices through that supplier. No member is required to participate. For example, the MANP (last bullet above) of Erie notes that more than 1,400 members have signed up, netting savings of around $2 million/year . . . but leaving more than 5,000 members not signed up.

Energy marketers sign discounted power-price deals with associations because such deals solve their marketing problem. With the associations aggregating the demand of significant power users, a "preferred" vendor has a foot in the door - and an advantage over the other power marketers competing for this business. For the association involved, of course, the discounted price is yet another service to offers it members.

Aggregation is a game that can be played by anyone. In one case, a local lawyer formed a power-buying group made up of 320 schools, churches, libraries, businesses, fire companies, schools, and municipalities. These organizations (in a four-county area near the state capital, Harrisburg) were aggregated, by the lawyer, Paul Ziegler, into The Central Pennsylvania Energy Utility Consortium. Their selection was PP&L EnergyPlus.

Consumer Angle

Irwin A. "Sonny" Popowsky - the state's Consumer Advocate - is quoted in the May 12, 1999 editions of *The Philadelphia Inquirer* recommending that consumers switch from PECO Energy to an alternative supplier(!) "if you plan on using an air conditioner this summer." The reason: PECO's prices increase for heavy users during summer; competitors offer year-'round flat rates.

Here's a key quote from the article:

> "A customer using 1,500 kilowatt-hours per month would pay PECO Energy $89.85 for energy, while PECO's Exelon subsidiary - the cheapest alternative supplier for most customers - would charge $70.35 (this is in addition to the regulated charges all customers in Southeastern Pennsylvania pay to PECO for delivering the energy)."

According to the article, Exelon's flat year-'round rate is 4.69/kWh. PECO's charges: 5.55/kWh from October to May, and 6.21/kWh from June through September. What's more, the PECO rates were cut 8% effective Jan. 1, 1999; that rate cut will be rescinded on Jan. 1, 2001, the Inquirer article reported.

Exelon/PECO

Perhaps the most unusual development in Pennsylvania - from a non-contractor point-of-view - has been the swing of customers for PECO (Pennsylvania Electric Company) and Exelon, a PECO subsidiary. While PECO is hemorrhaging customers (see table in previous page), Exelon is reportedly adding customers even faster. But, of course, this is merely shifting revenue from one pocket to another. The quotes above from the newspaper and newsletter articles round out this situation. Separately, Corbin McNeill, CEO of PECO, said back in January that Exelon has "acquired more load than we (PECO) have lost in our service territory." Thus, there is a net gain for the parent holding company. A recently hired vice president of the company said that Exelon "is a lot like a start-up company, but with the backing of a solid Fortune 500 company behind it."

Perhaps that's the frightening part of Exelon/PECO for electrical contractors: An enterprise backed by a utility, but without the staid, monopoly-bred mindset and lack of instincts for a competitive marketplace. And, make no mistake about it, Exelon is one scary entity for electrical contractors. Here's a direct quote from the company's website, which shows clearly at what target the operation is aiming:

> "Our core competencies are in energy management, infrastructure and communications, which means you can focus on your business. Exelon is your experienced resource for everything from energy-conserving process enhancements to facilities design and construction. From energy management strategies to capital financing. And from cost-cutting, demand-side strategies to cost-efficient, fiber-optic local dial tone service."

Exelon goes on to note that its services can be "bundled or unbundled," which means, in certain circumstances, the company will perform energy-efficiency retrofits or installations without including the sale of energy to customers. "We

provide cost feasibility studies, life cycle cost analyses, design/ building construction services, and project management." The company also offers financing options, befitting a company backed by a huge utility.

Print ads for Exelon (from Fortune magazine, Nov. 9, 1998 edition) note that "As a business, you should expect lower rates now that electric deregulation is here. With Exelon Energy, you can expect more" (underlines in original text).

Among other services Exelon promotes:

- Outdoor lighting
- Substation design and installation
- Maintenance services
- Utility-oriented services (competing with line contractors); and
- Local dial-tone services (via PECO's Hyperion Communications subsidiary and its all-fiber local loop).

Essentially, Exelon is able to custom-tailor a package for a given customer. Do you want to buy electricity through the company, and have your lighting and HVAC system made more efficient (and maintained)? This is available. You can also obtain a package that includes energy supply with outdoor lighting; or communications services; or have a substation designed and built, too. What's not clear is whether or not Exelon has a single approach: Do company employees do the work, or will it use existing contractors? In one instance - the recently announced construction of a 70-mile fiber-optic network for Delaware County (Pa.) schools - Exelon is working with Blair Park Services, a networking contractor.

In addition, Exelon is not limited in its service area (as PECO Energy has been). As a competitive market participant, Exelon's services have been provided to the School of the Museum of Fine Arts in Boston, Mass.; apparently, this job, which involved correcting the building's power factor, was done through an electrical contractor.

Exelon also sells natural gas in Maryland and New Jersey. Has offices in Boston, Mass.; Pittsburgh, Pa; Wayne, Pa. (Philadelphia suburb); and Mount Laurel, N.J.

Conectiv

A merger of mid-Atlantic coastal utilities - DelMarVa and Atlantic Energy - created Conectiv. And consumers in the mid-Atlantic region (even those not initially among the 1.2 million Conectiv customers) aren't likely to forget the name.

As detailed in a Jan. 29, 1999 *Wall Street Journal* "advertising" column, Conectiv has gone to market with a $5 million ad campaign - with ads in top-ranked national publications and TV shows. The pitch, according to the *Journal*: "Need a plumber, better phone service, or someone to fix the air-conditioning? Call your local electric utility." According to a recent report, the campaign is working: brand awareness has reached 65%, the company has reported. Voice-over talent on the TV spots was Jason Alexander, whose Seinfeld stardom made his a household voice (so to speak).

> "We're trying to move away from just the power-company and energy image, and redefine ourselves as a provider of vital services," according to Howard Cosgrove, chairman/ceo of Conectiv, as quoted in the Journal article. The company has identified its potential service area as extending from the southern reaches of New York City to the Maryland suburbs of Washington, D.C.

Here's what Barry Elson, the company's executive vice president, had to say in April 1999 remarks to the Utility Strategic Marketing Conference about his company's approach:

> To earn the extra revenues we needed, we began new businesses -- businesses that deliver the "vital services" that enable our customers' homes and businesses to run better. We tested this positioning concept, and research confirmed that customers wanted vital services brought together by one company. It would simplify their lives.
>
> One of Trout and Ries' 22 Immutable Laws of Marketing is not to take market share, but to create a new category you can be first in. That is our approach. To create the new category of "vital services" and get the consumer and businessperson to think of these low interest, low involvement services in a new way that offers convenience and

simplifies the "hassle factor" of managing all these services.

As part of our expansion strategy, about two years ago we began acquiring heating, cooling and plumbing companies in and around our traditional regulated service territory. This increased our product line, and extended our customer base and geography into Pennsylvania and deeper into New Jersey. Why HVAC? Because at that stage of our development, our primary research, as well as national secondary studies, told us that consumers and businesses would buy these products and services from their traditional utility.

. . . We also took this time to develop and strengthen businesses that support our large commercial and industrial customers: Conectiv Solutions, our business that offers customized energy solutions, including electrical, mechanical, and energy control systems consulting, and Conectiv Thermal Systems, which provides customized on-site or district heating and chilling systems.

In addition, the company has gone into the natural gas marketing business, and the communications business as well. Included under the company's banner are Conectiv Communications ("a facilities-based telecommunications company") and Conectiv Services (heating, plumbing, air conditioning, and mechanical contracting).

More relevant, of course, is what Conectiv is doing in electrical/mechanical work. Conectiv Solutions offers businesses the following services:

Electrical:

- Electrical testing/ maintenance
- Power systems design and construction
- Power systems studies
- Power quality diagnostics
- Power monitoring and control systems
- Backup generation
- Uninterrupted Power Supply (UPS)

Energy Control:

- Energy audits
- Lighting retrofits
- HVAC and motor systems
- Energy management strategies

Mechanical:

- Mechanical/HVAC system design and construction
- Plumbing and piping
- Sheet metal fabrication
- Preventive maintenance programs

What's more, Conectiv recently announced plans to streamline its energy-generating operations and focus on the selling of "vital services." It plans to sell off much of its generating capacity (about 50% of what it now has). In place of owning power plants, the company will instead focus on ownership of a fiber optic network serving Delaware, New Jersey, Maryland, and southeastern Pennsylvania. In May 1999, the company announced plans to offer Digital Subscriber Line (DSL) services to homes and businesses in that geographic region.

An additional focus of Conectiv's marketing has been those associations identified above. In the Greater Philadelphia area, Conectiv signed agreements in the fall of 1998 with: the Building Owners and Managers Association of Philadelphia; the Greater Philadelphia Hotel Association; the Apartment Association of Greater Philadelphia; and the Philadelphia Condominium Managers Association.

These agreements included the opportunity for association members to buy cheaper energy - and the opportunity for Conectiv to sell more "vital services" to the individual companies. "We look forward to providing all members with a full range of energy consulting, telecommunications, and HVAC services," a Conectiv spokesperson said.

Other marketers in PA

Here's a quick look at what a few other marketers have been doing:

Allegheny Energy: This company's fire was lit when deregulation hit the state, as it is one of the low-cost power gen-

erators. An example of what's possible for such a company: A deal with Brandywine Realty Trust to supply power to 120 commercial properties in the Philadelphia suburbs and Reading and Harrisburg, Pa. The customer reportedly will save more than $1.4 million annually.

Additionally, Allegheny is working with Brandywine to provide similar savings to those of the company's commercial tenants who are direct-billed for electricity use.

While the Allegheny-Brandywine deal apparently does not include ancillary services, it is worth noting here because this type of low-cost energy marketer is what is spurring other energy suppliers to offer other services in "bundled" deals.

Enron: This national energy marketer's strategy is discussed in the California section. However, it's worth noting that, through an acquisition of a larger company, Enron took ownership of Williard Inc. Willard is one of the older, larger contractors in the Philadelphia area, doing mechanical and electrical work - and is a member of NECA's local chapter!

DTE Energy: This Ann Arbor, Mich.-based utility has been active in Pennsylvania with its DTE Edison America subsidiary. The company claims to be "the only company in Pennsylvania selling electricity at cost." The catch: There is a monthly service fee of $12 to residential customers and $17 to small business customers. A visit to the company's website (www.dtesavings.com) will reveal an energy-savings calculator, an Energy Buyers club, and other innovations (including actual door-to-door marketing calls on residences!). While DTE does offer ancillary services to businesses, it's not clear whether this is part of the company's Pennsylvania strategy.

New Energy Ventures: this California-based energy marketer is active nationwide. Recently, it announced a deal with the Philadelphia-area hospitals of Tenet Healthcare, a company which NEV already serves in California.

Eight acute-care facilities and other Tenet health-care units in eastern Pennsylvania are included in the contract, which will see NEV provide energy. In addition, Tenet has an option to purchase on-site generation products from NEV, and also can ask the energy marketer to audit its Philadelphia facilities with an eye towards reducing energy usage.

Apparently, NEV offers additional services as a "standard" option. For example, the NEV deal with the Pennsylvania Retailers Association includes (a) savings on energy supply, and (b) PRA members' options to ask NEV to customize their billing, analyze energy use, provide energy management services, and install and provide distributed generation products and services.

PP&L Resources: This utility's PP&L Spectrum subsidiary acquired Burns Mechanical of Exton, Pa. (which serves the Philadelphia metro area) in April 1999, giving Spectrum four contractors (the others are H.T. Lyons, McCarl's, and McClure Co.). Together, the foursome reportedly serve "eastern, central, and western Pennsylvania as well as parts of Ohio, West Virginia, New Jersey, Maryland, and Delaware."

> "These four companies - together with PP&L EnergyPlus and PP&L Spectrum - will enable us to offer services ranging from energy supply and management services to the design and construction of process piping systems and heaving, ventilating, and air-conditioning systems,"

said Lawrence DeSimone, president of PP&L Spectrum. Here's how PP&L is putting these contractors to work: In a February 1999 agreement with the Fox Chase Center - a leading cancer center - the company is providing electricity for a five-year period, and energy services over a 10-year period (!). PP&L EnergyPlus will provide "financing for a new air-conditioning chiller plant and advanced metering."

What's more, preparing for its effort to penetrate the Western U.S., P&L recently purchased the energy marketing operations of Montana Power Co., part of a scheme which involved buying 13 Montana power plants with 2,600 mW of capacity.

<u>One NECA Chapter's Efforts</u>

In Philadelphia, Larry Bradley sees the results of utility deregulation on electrical contractors every day. He's the veteran manager of the Penn-Del-Jersey Chapter of the National Electrical Contractors Association, and his members are frustrated . . . and a bit frightened.

> "My members are threatened by what's going on. We have seen, literally, tens of millions of dollars of work in this area that formerly was done by my members, now being done by utilities," says Bradley. "Slightly

"My members are threatened by what's going on. We have seen, literally, tens of millions of dollars of work in this area that formerly was done by my members, now being done by utilities,"

> more than half of this, in my estimate, is maintenance; the balance is construction."

Most terrifying , according to Bradley, are the twin utility approaches of "bundling" and offering financing. "We just can't compete with these tactics," he says. "They'll approach a customer and bundle a number of services - electrical maintenance, mechanical maintenance, power sales of course, design and engineering, plus internet access, and a lot more.

> "Then, they'll tell the customer: 'You won't need to make a capital outlay for any of this. We'll finance the deal.' Relationships are important, and our contractors have good, long-term relationships with a lot of good customers. But when a customer is approached with a package like this, including the financing . . . well, relationships generally fall by the wayside."

As a result of this, NECA's Penn-Del-Jersey Chapter is actively exploring ways to compete. Bradley and his members are talking with banks, other service providers, and anyone who can help them to put together "packages" of services that the contractors will be able to offer in response to this type of competition.

> "To date we haven't been able to do that," says Bradley. "But we have to. For example, Conectiv seems to be targeting hospitals. They go in and offer to do the electrical and mechanical maintenance work, as well as sell power to the hospital. Well, I have at least five contractors (members) who make their living primarily - in a couple of cases solely - from hospital work; there are a lot of hospitals in this area. These companies, these contractors, are worried that they might not survive."

Web links for more information:

PA state office of Consumer Advocate:

www.oca.state.pa.us/

Statistics on PA electricity generation:

www.eia.doe.gov/cneaf/electricity/st_profiles/pennsylvania/pa.html

Electric Choice - state website for consumer choice:

www.electrichoice.com

Energy Marketers

www.alleghenyenergy.com
www.conectiv.com
www.dtesavings.com
www.dteedisonamerica.com
www.exeloncorp.com
www.exelonservices.com
www.newnergy.com
www.peco.com
www.pplenergyplus.com
www.pplresources.com

NEW JERSEY

A statesman once said something to the effect: "Pity poor Mexico. So far from God. So close to the United States!" With the coming of electrical deregulation to New Jersey in August 1999, one might say something similar - "Pity poor New Jersey - so close to Pennsylvania . . . and not far enough from New York state!"

In the months before the official deregulation date of August 1, 1999, utility subsidiaries from both New York (where they were not yet free to maneuver inside state lines) and Pennsylvania (where all-out war had been waged since January of that year) were flocking into New Jersey to grab a piece of the action. Also participating were companies from outside the area.

Here's a short list of notable developments from the spring and early summer of 1999:

Exelon Management & Consulting: this unit of a subsidiary of Pennsylvania's PECO Energy opened an office in Princeton and immediately began offering breakfast seminars for corporate executives. See the Pennsylvania section for more on PECO/Exelon.

FPL Energy Services: This is a unit of the same holding company that owns Florida Power & Light. Yes, Florida. It began selling energy to customers in Pennsylvania in January 1999; it also announced plans to open a New Jersey office in the summer. The company claims to operate power plants in 12 states "including numerous facilities in the Northeast."

Company promotion says that FPL Energy Services "offers an array of products and services, including electricity and gas commodities, energy data management, on-site cogeneration and distributed generation, facility management, energy efficiency, and project management."

PP&L Energy Plus: This Pennsylvania utility (see Pennsylvania section) opened an office in New Jersey in April 1999. The company claimed its home-state experience serving business customers make it "a

market leader" and gave it a leg up.

Wellesley Energy LLC: this company opened an office in Vineland, N.J., and announced that it was (a) going to acquire heating oil companies supplying commercial and residential customers, and then (b) use these companies to sell electricity to their customers (as well as fuel oil). Essentially, Wellesley is going to perform a heating-oil-distributor roll-up in New Jersey (as well as in Connecticut) and expand the horizons of the acquired companies. New Jersey-based Wellesley is privately held.

Understandably, utilities within New Jersey - and those nearby, hoping to compete in the state - were looking at tough competition . . . perhaps tougher than in Pennsylvania.

100% On 8/1/99

New Jersey's deregulation law, passed in February 1999, accomplishes a "poof" restructuring: On July 31, 1999, most customers had to buy energy from a regulated monopoly; on August 1, every energy buyer in the state could choose a provider.

What's more, the state mandated a decline in rates - 5% effective August 1; and, by 2002, rates were required to be at least 10% lower than those prevailing in April 1997. Among other interesting facets of the new rules:

- municipalities could choose to aggregate their citizens into a buying group, with the simple passage of a law. Individuals could "opt out" of the municipal buying group, but would have to send a written notice of their choice within 30 days.
- Private concerns could also aggregate groups of electrical buyers, but would have to obtain signatures first.
- Aggregators had to register with the state's Board of Public Utilities
- Energy marketers had to be licensed by the BPU
- In order to sell electricity in New Jersey, suppliers had to certify that a minor percentage of their power came from renewable energy sources. The percentage mandated rises gradually to 4% by 2012.

PSEG

Put yourself in the shoes of an incumbent New Jersey utility: The state has just issued an "all-comers" invitation for competitors to invade your territory, while also forcing you to cut your rates now and in the immediate future.

You have $17 billion in assets, and 2.2 million customers; heck, you're #257 on the Fortune 500 list in 1998. And come August 1, you're providing a 13.9% rate cut for consumers which "will return about $1.5 billion to the economy of New Jersey," as you note in your materials. Of course, that "returned" $1.5 billion comes out of your company's pocket!

What is your response?

For Public Service Enterprises Group of Newark, N.J., the answer is to prepare to compete. PSEG's subsidiary is Public Service Electric & Gas, the state's largest utility. Here are services the company is offering, according to literature picked up from the PSEG Energy Technologies booth at an April 1999 national electrical trade show held in Baltimore, Md.:

Energy Consulting and Reporting Services

Energy Procurement

Design and Installation Services

- HVAC
- Lighting
- Power plant systems
- Building automation
- Communication services

Building Operation and Maintenance (electrical and HVAC)

Project Financing ("reap the benefits of new equipment with little or no initial cash layout")

In other words, PSEG's solution at this time to its new competitive environment is to get into everyone else's business - including that of the electrical contractor. In fact, a special literature piece picked up from the company's Baltimore booth promoted just one service: architectural outdoor lighting. The company's approach here features consolidation of all lighting charges - installation, power costs, and lighting system maintenance - into one monthly bill, with "minimal" upfront charges. The pitch: "Clients can afford the lighting specified in the architect's blueprint" thanks to the service of rolling all of the costs into one monthly bill.

Security lighting is the focus of another brochure, which features "Free Standard Installation" and "Free Year-Round Maintenance." Of course, these

"Put yourself in the shoes of an incumbent New Jersey utility: The state has just issued an "all-comers" invitation for competitors to invade your territory, while also forcing you to cut your rates now

services are not "free" - they are, as explained in the literature, bundled into one monthly bill (with electricity costs). PSEG also "guarantees" its services: a new installation will be up and running in 10 working days, and out-of-service dusk-to-dawn or street lights will be repaired in three working days.

With a competitive philosophy as sketched above, it's not surprising to find PSEG out in the market buying contractors in 1999. In just a one-week period (May 19-24, 1999), the company purchased three contractors:

- Liber Rich & Sons, an HVAC construction and maintenance company that also offers plumbing, process piping, and energy management services.
- Rich Fire Protection, which operates in New Jersey, Pennsylvania, and New York.
- Struble Air Conditioning, a $6-million (sales) contractor with two New Jersey offices.

Previous purchases by PSEG were:

- Fluidics, a $60 million Philadelphia-based mechanical contractor (in 1998); and
- Arden Engineering of Rhode Island, the state's leading mechanical contractor.

According to PSEG, including internally generated business, PSEG Energy Technologies had (as of late May 1999) topped $200 million in annual mechanical and services revenues - which would, it said, make it the 17th-largest mechanical contractor in the U.S. (as ranked by Contractor Magazine).

Re: Pennsylvania: PSEG has been active in the deregulated market next door, too. According to one report, in 1998 it ran a $3 million advertising campaign in the southeastern Pennsylvania market - targeting the Philadelphia metro area. PSEG reportedly also plans to participate in the market in New York when it, too, deregulates.

Con Edison

Con Edison Energy Solutions, a nonregulated subsidiary of the huge New York-based utility, announced plans in May 1999 to expand its service area to include southern New Jersey, Delaware, and Pennsylvania. The company is serving customers of Palisades Energy Services (Cherry Hill, N.J.), which, Con Ed said:

" . . . has provided energy services, including design-build services, to commercial and industrial customers in New Jersey."

Services provided by CEES include:

- Total Energy Resource Management (TERM), to help companies manage their energy use;
- project management to implement the changes needed;
- energy commodities trading;
- the Lighten Up program, to help businesses with lighting retrofits, including "design, installation, maintenance options, and project financing;"
- the Power Interruption Contingency program, for helping companies with emergency and back-up power needs; and
- turnkey services for "evaluation and installation" of parallel drivelines on steam-turbine chillers.

Even more chilling is an affiliation CEES made public in June 1999 - with In Good Taste (IGT) Services. CEES customers will be able to obtain a free IGT card that provides a 25% discount at select retail, travel, arts, and restaurant establishments in New York, New Jersey, Connecticut, Florida, California, and elsewhere. Small business and residential customers who buy energy through CEES will not have to pay the normal $48 IGT Services annual fee. CEES also offers two months of free Internet access, via AT&T's WorldNet.

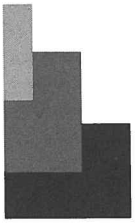
What's behind these freebies? "Deregulation is not just about the separation of energy supply and energy delivery services, it's about changing the formula between consumers and energy companies . . . our goal is to ensure that our customers receive outstanding value from their relationship with Con Edison Solutions," said a company spokesperson.

Onsite Sycom Energy

Based in Carlsbad, Calif., Onsite Sycom Energy Corp., an energy services company, also has an office in New Jersey. The company's brief experience in the East includes the following triumphs:

County aggregation: within the first three weeks of June 1999, two of New Jersey's counties hired Onsite to aggregate electric power demand -

"Deregulation is not just about the separation of energy supply and energy delivery services, it's about changing the formula between consumers and energy companies."



and buy energy cheaper.

Sussex County hired Onsite to aggregate 50 county buildings, the county college, its municipal utilities authority, and demand from four small municipalities (Sparta, Hardyston, Franklin, and Vernon). All together, the aggregated facilities had electricity usage of about $1 million annually. Shortly thereafter, the Middlesex County Improvement Authority hired Onsite to aggregate power use for county and municipal facilities.

Electrical contract: Onsite Sycom won the electrical contract to build and operate an electrical distribution system for the new Jersey Gardens Mall (Elizabeth, N.J.), for a private developer. The $3.8 million contract will see the ESCO do the following work:

- Build a distribution system for the more than 1.6 million sq. ft. of mall space
- Arrange purchases of electricity for the mall
- Handle billing of mall tenants for electricity use.

According to a spokesperson for Onsite, the project is exciting "in that our company has been hired not only to purchase the energy, but also to provide the distribution system for the energy, utilizing the best technology available at the lowest possible cost." This project may well present a role model for other ESCOs who will increasingly compete with electrical contractors by bundling energy and contracting services in the deregulated states.

Web links for more information:

New Jersey Board of Public Utilities: www.njin.net/njbpu/

Energy Marketers:

www.conedsolutions.com
www.exeloncorp.com
www.fplenergy.com
www.onsitesycom.com
www.pplenergyplus.com
www.pplresources.com
www.pseg.com

OHIO

As of June 1999, Ohio's politicians were still working out how the state would be deregulated. However, previous objections by the states incumbent utilities had been withdrawn and deregulation was considered to be inevitable. Yet at least one utility in the state, FirstEnergy, had been acting for more than a year as if it had been freed of its regulated bounds - sparking action before the state's regulatory authorities.

With the subject being debated in the legislature, issues such as the treatment of "stranded costs" were at the top of the agenda. FirstEnergy was one of several utilities battling the legislation; in fact, one report said the company had spent more than $11 million on advertising and lobbying campaigns "to convince lawmakers to pass costs on to residential customers." (Columbus Dispatch, May 24).

It didn't work. The final deregulation bill sent to Gov. Bob Taft in June leaves the Public Utilities Commission of Ohio (PUCO) with the responsibility for creating rules on stranded costs. In the words of the Cleveland Plain-Dealer: "How much in stranded costs the PUCO passes onto customers will determine how much electric rates fall."

Under the new law, the everyday consumer is guaranteed a 5% savings on electric bills when the state is deregulated on Jan. 1, 2001. Keep in mind that while Ohio ranks 7th in population (over 11 million people live here) and 7th in generation (lots of coal plants), it ranks 3rd in the nation in energy consumption (thanks to energy-intensive industry).

Plenty has been happening in Ohio in the 1998-99 period, without considering the legislature. Here's a snapshot.

Contractors Worry

Something called "cross-subsidization" is a worry to electrical contractors, and others who fear competing with electrical utilities, in the new unregulated environment. In fact, the worrying of contractor-members of the Greater Cleveland Chapter of NECA actually made news in March - when the weekly newspaper Crain's Cleveland Business featured a story. The headline "Electrical Contractors Worry Utilities Will Gain Upper Hand."

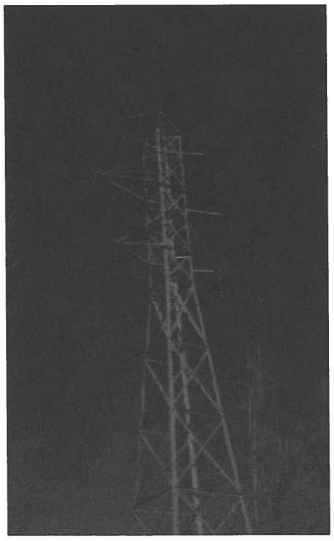
Contractors Ralph Day (Day Electric) and Thomas Morgan (Harrington Electric) were quoted by Crain's in a remarkably fair manner, summed up best by Day's closing quote: "All we want is a level playing field. If that is what the (deregulation) legislation will do, then we are not afraid of the competition."

Prime among the utilities contractors in Cleveland, the rest of Ohio, and the balance of a 13-state region will perhaps fear is FirstEnergy. This company has gone on an acquisition binge in 1998-99, buying nearly a dozen electrical and mechanical contractors. The company is reportedly doing

work in Ohio with crews from an Indiana electrical contractor it acquired.

Fair competition is the rock on which the U.S. economy is built. Contractors are worried that funds provided to utilities by ratepayers for the future build-up of electrical generation and transmission facilities - and thus "in the bank" for the utilities - will be used to subsidize the operations of deregulated companies. In other words, the money will "cross" from the regulated to the deregulated side of the house, and the "subsidization" will help the nonregulated entity(ies) out-compete contractors.

Keep in mind that, until the first day of 2001, Ohio is a regulated state. Has FirstEnergy broken the rules?



Action before PUCO

Acting in conjunction with several other construction trade associations, the Ohio Conference of NECA has brought a complaint before PUCO against FirstEnergy. Allied with NECA are associations representing the state's mechanical contractors, general contractors (AGC), roofing contractors, air conditioning contractors, plumbing-heating-cooling contractors, and consulting engineers. These groups are together under the rubric "Ohio Construction Trade Associations."

FirstEnergy, the target, is alleged to have violated sections of the state law "by providing services that are not in the tariff nor otherwise approved by" PUCO. The complaint makes other charges against the utility, but at heart it's as easy as a-b-d-c, as the complaint states:

> "In the process of transitioning into deregulation, the FirstEnergy companies have engaged in abusive marketing practices by using assets and revenue from their monopoly services. They have responded to the new competitive market structure by diversifying into non-regulated construction business including, sales, installation, maintenance and repair of heating, air conditioning, lighting, and other commercial and residential electric equipment.
>
> "Traditionally, Ohio Construction Trade Associations' members perform these 'non-utility' services across Ohio, typically acquiring the work through competitive bidding both public and private. However, the FirstEnergy Companies perform these 'non-utility' services at a reduced cost or zero cost, causing monopoly resources to be employed either directly or through an affiliate.
>
> "The FirstEnergy Companies cross-subsidize select affiliated construction services in many ways, including:
>
> (a) financial subsidization of customer credit, billing, materials, and labor;
>
> (b) use of confidential market data or customer lists;
>
> (c) advertising non-utility services through 'bill stuffers' when the same promotions are not made available to competitors, and
>
> (d) providing free personnel, equipment, and office space" (to the affiliates)

Would this behavior, and other alleged abuses by FirstEnergy, be unlawful in a deregulated environment? That depends. Protection against cross-subsidization has been written into the state's new deregulation law, according to Richard Newcomer, manager of NECA's Greater Cleveland Chapter (phone conversation June 25 1999). The scope of this language, and how it will be interpreted, remain to be seen.

More spine-chilling are some specific allegations of FirstEnergy behavior inside Ohio. Here are a few allegations from the complaint filed with PUCO:

1. When a NECA-member electrical contractor convinced a customer to take a look at installing capacitors to save energy, the customer contacted Ohio Edison (a FirstEnergy subsidiary) to obtain interval metering data to prepare cost calculations. Ohio Edison responded with a letter to the customer that said "We would like you to consider having Ohio Edison install the capacitor bank and associated equipment."

2. Another NECA contractor saw a public school organization cancel a purchase order that would have had the contractor furnish and install transformers. The letter to the contractor said that Toledo Edison (another FirstEnergy subsidiary) was doing the work.

3. The Toledo-Lucas County Port Authority amended

its agreement with Toledo Edison to include construction of street, roadway, and area lighting at Port Authority facilities without competitive bidding. The five-year amendment concerns lighting owned by the Authority, not the utility; under the state's law, the complaint contends, the utility should not be doing such work.

4. The complain presented Toledo Edison advertisements and bill inserts that showed the utility was offering zero percent financing "without disclosure of implicit financing costs based on rate funding." The zero-percent financing was offered for installation of outdoor lighting. Funding terms were said to include 48-month interest-free financing.

5. In a specific 5kV power line relocation project from a private company, Toledo Edison's bid was 50% lower than that of the next lowest of four contractor-bidders "evincing cost reduction based in large part upon the ratepayer subsidy of labor costs in offering the non-regulated activity."

6. In another job specified, a contractor bid $29,900; Toledo Edison's cost on the job, per a work order, was $33,800. The utility offered "incentives" and charged the customer only $12,800, according to material in the complaint.

7. On the outdoor lighting at a nursing home - installation of 51 pole lights - the low contractor bid was $31,500; Ohio Edison bid $5,800. For a proposed additional project - alternate 39 pole lights - Ohio Edison's bid was $4,000; the lowest contractor came in at $40,000.

Initially, FirstEnergy resisted providing requested documentation in this complaint filing, according to NECA's Newcomer. However, in the June 25, 1999, phone conversation, he revealed that the company had finally produced the requested materials and that the Construction Trade Associations' lawyers had found other instances like those above - and worse.

About FirstEnergy

Those reading this snapshot on Ohio and FirstEnergy might conclude that this is a "local" problem - but it's not. FirstEnergy has bought contractors in several states, all of them large and (reportedly) prosperous. The company built an electrical/mechanical/service contractor organization with $420 million in annual sales overnight - using a strategy not all that much different from that used by the publicly held "roll-up" companies. Among the acquired companies:

- Ancoma, Inc., Rochester, N.Y.
- Colonial Mechanical, Richmond, Va.
- Dunbar Mechanical, Toledo, Ohio
- Edwards Electrical & Mechanical, Indianapolis
- Elliott-Lewis Corp., Philadelphia
- The Hattenbach Co., Cleveland
- L.H. Cranston & Sons, Timonium, Md.
- Roth Bros., Inc., Youngstown, Ohio
- RPC Mechanical, Cincinnati
- Spectrum Control Systems, Cincinnati
- Webb Technologies, Norfolk, Va.

FirstEnergy was created in 1997, when Ohio Edison, Pennsylvania Power, Cleveland Electric Illuminating, and Toledo Edison were merged. The company serves more than 2 million customers and has more than $18 billion in assets.

If the behavior detailed in the seven points above seems rapacious when referenced as an Ohio problem, consider what it would be like to have this huge, aggressive utility come to your state. It's entirely possible: FirstEnergy has targeted a 13-state Mid-Atlantic/Eastern region, extended Eastward from Indiana to Maryland, for energy sales and contracting services.

What's more, FirstEnergy is creative. In May, it introduced an "Advantage" program inside Ohio, aiming at 238,000 small business customers. The program will see the utility offer the following non-utility services:

- Property insurance
- Health benefits
- Fuel
- Overnight delivery
- Wireless telephone service
- Personal computers and office supplies

Partners in providing these services include big names: AT&T, Airborne Express, Sunoco, The Hartford, U.S. Office Products, and Compaq.

Other developments

Utilities other than FirstEnergy have not been nearly as aggressive inside Ohio, and Ohio utilities haven't (yet) broadened their scope as far as has FirstEnergy. However, there are a few developments as of mid-1999 worth keeping one eye on:

Cinergy/Indiana Energy/ Reliant Services: Reliant Services is a joint venture of Cinergy Corp. and Indiana Energy, dedicated to providing construction services to telecommunications companies and other utilities in Indiana, Ohio, and Kentucky. Cinergy, by the way, is the new name from the parent company of Cincinnati Gas & Electric and PSI Energy Inc.; these companies serve more than 1.4 million electric customers in Indiana, Kentucky and Ohio.

Recently, Reliant Services purchased Midwest Marketing, Inc., and Utility Resources, Inc., that are in the utility facilities locating and construction market. A company press release estimated Reliant revenues at $10 million in these construction-related enterprises.

Amway: While this is not an electricity matter, it is noteworthy that Amway Corp. and Columbia Energy are marketing natural gas services to consumers in Ohio and Georgia. Columbia Energy (Herndon, Va.) is the energy company; Amway is the multi-level marketer. Yes, that Amway - the one with more than 450 nutrition, personal care, home care, living, and commercial products.

Under this arrangement, Amway distributors are able to sell natural gas service directly to residential consumers and small businesses. Eventually, it has been reported, Amway distributors will also sell electricity. In Georgia, the two companies report, consumers can save as much as 18% a year on their natural gas bills by going the Amway route.

Web links for more information:

Public Utilities Commission of Ohio
mabel.puc.ohio.gov/pr/pr_index.html

FirstEnergy websites:

Main Website
www.firstenergycorp.com

FirstEnergy Services
www.firstenergyservices.com/home.htm

Map Of 13-State Market
www.firstenergyservices.com/about_fr.htm

"If You Live In Pennsylvania" pages
www.firstenergyservices.com/PA_fr.htm

Advantage Program
www.feadvantagecom

Other Links

www.amway.com
www.cinergy.com

CALIFORNIA

If the "wild, wild West" once extended to California, it doesn't as yet in the age of electrical deregulation. That's an amazing reality, as many believed that the state, which passed its deregulation law in August 1996, would be an incredible free-market laboratory. Consider: there are 32 million people living in California, with more than 10 million energy customers (8.7 million of them residential). Much of the talk about the state's effort since the April 1, 1998 impact date has been about how meek and reserved the effort has been . . . thus far.

Highlights:

(a) While more than 300 companies reportedly expressed an interest in filing to sell energy in the state (with the California Public Utility Commission, or CPUC), a relative handful (33) are actually pursuing such plans. See footnote on this topic.

(b) Enron, the energy marketer that emerged as a potential competitor for residential business statewide, pulled out almost before it had begun.

(c) Only 1.2% of the state's residential power consumers had switched providers at the one-year mark (3/31/99), according to CPUC.

Much of the slow movement in California is blamed on how the state's deregulation rules were written - with one eye on helping incumbent utilities recover their stranded costs. For example, the state cut rates for residential customers by 10% from 1996 levels, a cut that stays in place (under the law) until 2002 . . . to give utilities time to recover those stranded costs.

Residential price swings?

One result: a proposition placed on the statewide ballot in November 1998, to get the stranded-cost provisions overturned; proponents claimed it

California Statewide Summary of Customers Switching Providers
June 15, 1999

Activity	Residential	Commercial		Industrial	A ricultural
		Under 20kW	20-500 kW	Over 500 kW	
Switched customers	92,904	26,942	11,652	1,002	2,977
Not Switched	8,787,830	978,131	196,948	4,864	119,447
Switch load (kWh)	706.4M	476.9M	6,913M	14,205M	4 2.2M
Not Switch load	55,986M	13,834M	49,985M	4,1487M	5,857M
Percent Switched Load (kWh)	1.3%	3.4%	13.8%	34.2%	8.2%

M = millions of kilowatt hours

SOURCE: CPUC data, web page: http://www.cpuc.ca.gov/divisions/energy/Direct_Access/DASR.htm

would cut consumer costs by 20%.. Keep in mind that California is a state where on-the-ballot propositions become laws. The ballot notion went down to an overwhelming 2-to-1 defeat, an occurrence which the consumer advocates behind it blamed on a massive (reportedly $30 million) advertising campaign by the utility side.

Residential consumers face a harrowing future in California. Consider this information, from an ESCO company press release (May 17, 1999):

> "After July 1 (1999), customers still receiving electricity from San Diego Gas & Electric will pay an hourly price for electricity from the California Power Exchange, the state's wholesale auction house for electricity. Utilities are required to purchase the electricity they supply to their customers from the PX.
>
> "Customers who continue to receive service from their local utility will experience more volatile prices than in the past, with no limitation on how low or high the price can go as determined by market forces.
>
> "'It's clear that, on average, electricity prices will be significantly lower in the future thanks to competition. It's equally certain that consumers will experience more price volatility than in the past."

Business not a bust

However, residential customers are not the entire story. CPUC says that roughly 29% of large industrial customers switched suppliers one year in. Energy service companies (ESCOs) have been very active, in the words of Rick Bush, editor-in-chief of Transmission & Distribution World (11/98 issue):

"In the chase for high-volume customers, both independent and utility ESCOs offer an array of products and services that boggle the mind. ESCOs are:

- Installing on-site generation to bypass the grid and its access charges
- Aggregating customers' load to reduce effective peak demand
- Replacing lighting and HVAC systems to improve energy efficiency
- Supplying meter-trending software to enable customers to fine-tune energy use
- Providing engineering services to keep plants operating smoothly."

Note that NECA's California chapters have formed together in a statewide organization to actively represent electrical contractors in deregulation matters. One conclusion this group has come to: NECA contractors must actively promote their services to all energy service providers. So they've come up with a promotional plan, including a website:

http://www.necaesp.org. Other NECA chapters, please take note.

Profiles below provide details on a few of the incumbent utilities and ESCOs and their activities, but what follows is by no means a comprehensive report.

Sempra Energy

This company's wheels-within-wheels organization is somewhat complex, involving the company's 6/98 merger of Enova Corp and Pacific Enterprises. Under the Sempra umbrella, one finds Southern California Gas. Co., San Diego Gas & Electric, Sempra Energy Solutions, and more.

And, going one level further down: CES/Way (Houston), reportedly the largest national energy services company, is a subsidiary of Sempra Energy Solutions. On the ESPIO website (http://www.espio.com), CES/Way describes itself as "a mechanical engineering-based performance-contracting ESCO" which does its energy work "without capital expenditures" by the client.

Some examples of what Sempra and its various arms have been up to lately:

- Sempra Energy will provide energy-efficient retrofit projects and water conservation services to Lockheed Martin facilities in 26 states, with the expectation that Lockheed's energy bills will be cut by at least 17% at sites in the East. Sempra will also be able to sell natural gas and electricity to those Lockheed sites in the country's eastern half, under the agreement signed in February 1999.
- The city of San Diego will save as much as 4% on electricity, and be able to go for more, thanks to a two-year agreement with Sempra signed in March 1999. Sempra's trademarked Encharge energy information service will help city officials; the Solutions subsidiary will review the more than 3,000 monthly utility bills received by the city.
- PETCO Animal Supplies, a national pet food retailer based in San Diego, signed a one-year contract to have Sempra Energy Solutions provide electricity to 115 California locations.
- Working with COM/Electric, a Massachusetts utility, CES/Way will perform energy system upgrades (new high-efficiency lighting, high-efficiency motors, and more) to buildings in the Cambridge Public Schools system. Energy savings are expected to drop by as much as 25%; project costs are covered via a combination of monthly energy-conservation incentive payments from COM/Electric, and a 10-year financing package provided by CES/Way.
- Working with Warrantech Home Service Co., a service-contract and warranty administration company, Sempra Energy Solutions will market home service contracts covering household appliances, heating systems, air conditioning, plumbing, and electrical systems. The companies say they expect the three-year pact to produce $40 million in revenues for Warrantech.

New Energy Ventures

NEV says it plans to serve customers "in every state where a competitive energy market is growing," seems to be doing exactly that. According to a report in the January 1999 Electric Light & Power, NEV "has 40% of the California market and 35% of ConEd's service territory in New York."

Of course, this is an exaggeration of sorts. Here's how it was stated in the financial report from NEV's former parent, UniSource Energy: NEV "won more than 40% of the electricity load provided by alternative energy service providers" in California, and "also attracted 35% of the available New York market."

Perhaps as a result of this success, UniSource Energy in June 1999 agreed to sell NEV to AES Energy, which is famous as a builder of independent power plants in the U.S. and around the world. AES owns or has an interest in more than 104 power plants, with total generation of more than 31,000 megawatts. AES reportedly will pay $90 million for NEV.

On the residential end, NEV is offering San Diego area customers of San Diego Gas & Electric a program called "en-sur-ance." Under "en-sur-ance," the consumer who signs up with NEV will get "protection from temporary price fluctuation." This is specifically designed to combat the consumer price volatility envisioned in the quote in the residential section above; the quote in that section is from an NEV press release.

PG&E Energy Services

Pacific Gas & Electric, the San Francisco-area utility, has formed PG&E Energy Ser-

vices, a nonregulated energy services provider. Here's a list of some of what PG&EES has been up to as of the middle of 1999:

- Will install air conditioning at 150 schools through Los Angeles, in a consortium with CH2M Hill Constructors, Inc. PG&E Energy Services will also supply power to some of the schools (those outside the Los Angeles municipal power authority's service area).

- Signed a multiyear agreement with Equity Office Properties Trust to supply power to its buildings in California. EOPT is the largest publicly held owner/manager of office properties in the U.S. Power purchases of roughly $50 million over the contract's time period reportedly will save EOPT more than $1.5 million.

- Is supplying power to San Francisco buildings in a program put together by the local chapter of the Building Owners and Managers Association.

- Has partnered with Jones Lang LaSalle, a huge real estate company, as Real Estate Energy Solutions, LLC. REES will provide capital and project financing for installation of HVAC, lighting, and other equipment; provide discounted electricity and natural gas; power quality improvements; and more.

Other California providers

Here are short notes on other California energy service providers:

Bmark Energy: this provider of natural gas and long-distance service recently added electricity to its offerings to hospitals, casinos, nurseries, farms, manufacturing plants, and residential customers.

Onsite Sycom Energy: based in Carlsbad, Calif., this ESCO is active in its home state and in New Jersey (see information under that state's heading). A sample of its California work: contracts with Cal State-Fresno will involve retrofitting more than 6,000 fixtures and installing 900 new fixtures in 30 campus buildings.

Southern California Edison: this company's parent company has a subsidiary that has a subsidiary, EdisonSelect, that has gone into the home repair business in southern California, including San Diego. The service, Edison OnCall, seems to compete directly with electrical contractors (see the links in the list below for more information) for both residential and small commercial business.

Strategic Resource Solutions: this subsidiary of Carolina Power & Light has been active out West, signing the San Francisco Unified School District to a long-term performance contract. The school district, with 139 facilities totaling more than 8 million square feet, will net savings of more than $3.4 million annually, according to SRS. The contract involves lighting retrofits, automatic temperature control renovations, water conservation upgrades, waste management solutions, and boiler retrofits.

"Green" power

Experts on California's energy market "estimate that more than 50% of all residential power switches, or about 100,000 households, have voted for green power with their electricity dollars," according to a one-year-later report.

Green power is a term over which debates have been held. Proponents claim that power markets are trying to offer "the greenest blend feasible." Is green power only that electricity coming from wind, hydro, and solar? Is a "blend" of some "green" power and some "dirty" power . . . "green" enough?

Leaving those questions aside, the fact is that more than 90% of California consumers can now purchase green power. Among those marketing power from "green" sources are Vermont's Green Mountain ("the nation's leading brand of cleaner electricity"), Commonwealth Energy Corp., (which claims to be the lowest-cost energy supplier in the state), and others.

In one early 1999 development, the city of Santa Monica began negotiations with Commonwealth to have all of its power come from "green" sources - 5 megawatts. According to initial reports, Santa Monica had anticipated paying a premium (over market-rate electricity prices) of $250,000; the negotiations indicated the premium might be as much as $100,000 lower.

Footnote on energy marketers

Here is one description of how California went from more than 300 registered energy marketers to around 30, as described in a paper titled "We're Having A Party And Nobody's Coming: What's Happening In California." The paper was presented in December 1998, to a meeting of the Association of Energy Service Providers, by

Ed Erickson (RLW Analytics, Inc.) and Ed Sugar (Pine Co.):

> "In the summer of 1997, the CPUC allowed companies wishing to sell electricity in California to become registered ESP. The requirements for registration were easy to meet, so hundreds of potential supplier rushed to sign up to be energy service providers. In weeks, the number of registered ESPs grew to over 300 companies.
>
> "Quickly, there were reports in the media of shady companies engaging in questionable marketing practices. One company, Boston-Finney, a multi-level marketer, was alleged to be operating a pyramid scheme and was barred from selling in California. In response to this, and other less-notable incidents, the CPUC enacted tougher licensing requirements. These new requirements included a $25,000 bond and signed agreements with the (incumbent utilities) to deliver power to ESPs customers, among other things. The majority of the companies who had initially registered chose not to meet the new requirements and have effectively left the market.
>
> "RLW Analytics conducted a survey of registered ESPs in late 1997 and early 1998. Most companies registered because they wanted to sell electricity. However, many individuals and small companies registered as ESPs not because they had any intention of selling electricity, but because they believed that the licenses may only be available for a limited time. They registered to ensure that they were able to obtain a registration in the event they wanted to enter the market at a later time. Some others stated that they registered with the hope of selling the rights to the license in the future for a profit.
>
> "A recent survey of suppliers by RLW Analytics, conducted in July 1998, showed that there were approximately 30 active providers in the state. Of these, only a handful accounted for most of the ESP customers in the state. Not surprisingly, about two-thirds of the ESPs surveyed indicated that they served primarily industrial customers."

Web links for more information:

NECA site for Energy Service Providers (ESPs)
www.necaesp.org

California Public Utility Commission
www.cpuc.ca.gov

CPUC Electricity Restructuring Page
www.cpuc.ca.gov/electric_restructuring/er_home_page.htm

CPUC Monthly Status Reports
www.cpuc.ca.gov/divisions/energy/Direct_Access/DASR.htm

CPUC Lists Of Energy Service Providers
www.cpuc.ca.gov/electric_restructuring/esp_registration/esplists.htm

Knowledge Is Power (electric choice site)
www.knowledgeispower.org/

Energy Marketers

www.bmarkenergy.com
www.cesway.com
www.newenergy.com
www.pgecorp.com
www.pgees.com
www.powersavers.com (Commonwealth Energy)
www.sce.com
www.sempra.com

www.sempraenergysolutions.com

EdisonSelect Competes With Contractors

www.wfive.com/oncall/

www.wfive.com/oncall/html/oncall_residential.html

www.wfive.com/oncall/html/property_management_services.html

Energy Marketplace Southern California Gas, a unit of Sempra Energy, offers California consumes a website where they can comparison Shop for electric power service on-line

www.energymarketplace.com/emp/html/index.html

A HISTORICAL PERSPECTIVE

Evolution of Utility Monopolies -

When Thomas Alva Edison invented the first practical incandescent lamp in 1879, natural gas, kerosene, and candles were the principle forms of artificial light. The basic science of electricity was known but until then no one had developed commercial applications for it, except for a few direct current motors and battery operated doorbells. Edison and his investors immediately faced the challenge of creating an infrastructure to generate and distribute power to energize his new lamps. His first venture in 1882 was a power plant on Pearl Street in the Battery section of the Manhattan borough of New York City. Following that was the first hydro-electric power plant driven by the waters of Niagara Falls near Buffalo, NY. In order to manufacture his lamps and generation products, he formed the Edison United Manufacturing Company, and by 1887 claimed the installation of some 500,000 electric lamps.

A challenge from George Westinghouse for standardized direct current transmission and distribution was successfully met and overcome with Edison's approach to alternating current standards. Thus, Edison not only created the lamp, but the power generation, transmission, and distribution infrastructure needed to create a mass market. Soon, his renamed Edison General Electric Company was a major threat to the candle, oil, and gas industries. However, during a severe recession in 1896, Edison was forced to sell his generating assets and concentrate on manufacturing his, by then, steady stream of new inventions, including the phonograph. There followed a free-for-all among competitors for dominance of the market for generation and supply of electricity.

The electric utility industry has undergone extraordinary expansion since Edison's Pearl Street Station lit a few neighborhood light bulbs. By the turn of the century, there were approximately 3620 small electric companies, and 2,800 of them were privately owned. Most companies served only cities and most of them were not interconnected with each other. Often, several companies served the same area. For example, 47 different companies served the same areas of the city. Eventually it was learned that the most cost-effective way to supply electricity was by means of a single system serving a large area. Some cities built their own systems while others granted franchise rights to a single company. The first state regulatory commissions were organized in New York and Wisconsin in 1907, and by 1922, most states had created public utility commissions. Thus, electric monopolies were born, and the independent electrical contracting business was created to wire buildings for electrification.

Today, electricity is one of the most commonly consumed commodities and universally depended upon commodities in the country. Overall sales of the industry are more than $200 billion, more than telecommunications and automobiles. Some of the problems experienced in the early years may emerge again unless adequate attention is focused on avoiding them.

During the early part of the 20th century it was not unusual for power lines of several different companies to be strung along the streets of American cities. The struggle for market dominance included trusts, cartels, and oligopolies. The industry that previously consisted of many privately owned small companies became consolidated by large holding companies. These trends proceeded rapidly. By the late 1920s the 16 largest holding companies controlled more than 75 percent of the national market. During the depression, many utility companies went bankrupt, which left a few large holding companies to dominate services nationwide. By 1932, three giant holding companies controlled nearly fifty percent of the market. Driven by profits, they left unserved or poorly served vast rural areas of the country. It became obvious that federal action was needed to assure equal electric power services for all citizens.

These developments, plus similar developments in oil and railroads, led to the enactment of federal antitrust laws to regulate competition. The Public Utility Holding Company Act was enacted in 1935 (PUHCA). This law sought to correct the abuses with four main strategies:

*reorganize the small number of huge holding companies into a larger number of smaller utilities -

*prohibit to subject to advance review all inter-affiliate transactions within large holding company systems -

*prohibit or limit investment by holding companies into non-utility business -

*prohibit the acquisition of distant utility companies.

PUHCA also created a limited

"Today, electricity is one of the most commonly consumed commodities and universally depended upon commodities in the country."

category of exempt holding companies that were permitted to invest in nonutility business if they did not become detrimental to the public interest. There followed nearly 20 years of trust busting by the Securities and Exchange Commission. By 1955 over 80 percent of the subsidiaries that were part of a holding company had been divested. Additionally, the Federal Power Act was also enacted in 1935, vesting regulatory authority in the Federal Power Commission, predecessor to the present Federal Energy Regulatory Commission (FERC).

While assuring customers of a reliable source of electricity, PUHCA also authorized state public utility commissions to assure investors of a guaranteed reasonable return on their investments in the rapidly growing electric utility business. Thus, the investor-owned utility (IOU) of today was formed. However, many industry experts believe that PUHCA now is obsolete and should be repealed. With most utility holding companies now exempted from its provisions by the Energy Policy Act of 1992, PUHCA no longer has much impact on the industry. Further, other laws created programs to finance rural electrification, to authorize municipalities to own power distribution systems, and created the several federally run power generation systems that were too expensive for private industry to finance.

"States gave local municipalities authority to organize utility companies under the assumption that aggregating customers and operating a non-profit business would assure lower prices."

States gave local municipalities authority to organize utility companies under the assumption that aggregating customers and operating a non-profit business would assure lower prices. In addition, the federal Rural Electrification Administration in the Department of Agriculture helped assure that undeveloped areas of the country would enjoy the benefits of electricity through low interest loans to rural cooperatives jointly owned by the consumers.

The regulated form of utility monopolies consisting of vertically integrated generation, transmission, and distribution served the nation well for five ensuing decades. Over 200 investor-owned companies were formed, over 2,000 municipal systems were organized, and over 1000 rural electric cooperatives were created. As larger centralized power plants were built, prices fell due to economies of scale. Demand for electricity rapidly increased as more and more consumer applications were developed and marketed. Edison eventually lost control of his company and with the removal of his name, it became the General Electric Company. Of course, other manufacturing firms rapidly entered the market, but they too stayed outside the distribution, installation, and maintenance of their products, further building the market for privately owned electrical contractors. Many economists confidently linked the increasing gross national product to the increasing use of electricity. As centralized power plants increased to meet the demand, prices fell consistently until the cost impact of environmental restrictions and operations of nuclear power plants reversed the declining trend in the 1980s.

Several trade associations were formed to represent the various marketing entities. The Edison Electric Institute (EEI) represented investor-owned utilities. They also organized the Electric Power Research Institute to develop and launch new electro-technologies. The American Public Power Association (APPA) represented the municipal-owned systems, and the National Rural Electrification Association (NRECA) represented the rural co-ops. Manufacturers were represented by the National Electrical Manufacturers Association (NEMA), and wholesalers were represented by the National Association of Electrical Distributors (NAED). The International Brotherhood of Electrical Workers was organized in 1891 to represent workers. Contractors were represented by the National Electrical Contractors Association (NECA) from 1901, later joined by the Independent Electrical Contractors, Inc.(IECI)

The Transitional Phase-

This electrical marketplace, consisting of utilities, manufacturers, wholesalers, and contractors, worked efficiently. Centralized power plants assured consumers of economies of scale, and investors enjoyed dependable stock dividends. Regulated prices were set through utility appeals to appointed state public service commissions that were influenced by stockholder interests. Prices were set to assure a competitive return on investment, as well as recover all costs and finance debt. Utilities were motivated to increase stockholders' capital and sustain dividend growth by showing a need for ever increasing investments and overbuilding of generation plants. Regulated prices often included costs to achieve local political goals that required larger users to subsidize residential and low income consumers. Even unpopular state taxes often were included in regulated utility bills. In addition, regulated prices included the higher construction, operating, and maintenance costs of 108 nuclear

power plants and other environmentally renewable sources. Prices fluctuated widely from state to state, depending upon the mix of generation methods.

However, the industry experienced severe buffeting, beginning with a blackout in the Northeast in 1965 that resulted in creating the North American Electric Reliability Council to synchronize power management in three primary national transmission grids. Second, the U.S. had become increasingly dependent upon foreign oil. With the outbreak of war in the Middle East in 1967, the Organization of Petroleum Exporting Countries (OPEC) decided to raise the price of oil by curtailing supply for political purposes. The subsequent oil embargo of 1973 created a gasoline shortage and economic panic throughout the West, caused runaway inflation in the U.S., and also focused attention on the profligate use of fossil fuels to generate electricity. Conservation of oil became the federal priority. President Carter called the campaign the "moral equivalent of war." This issue was met with the Public Utility Regulatory Policy Act of 1978 (PURPA) and the growth of nuclear power plants. But nuclear security concerns were emphasized by an accident at the Three Mile Island facility in Pennsylvania in 1979. After that incident, safety and environmental concerns about nuclear generators stifled further construction and dramatically raised their costs of operations.

PURPA authorized on-site power generation by a new crop of unregulated power generators called Independent Power Providers (IPP). Congress authorized and encouraged development and implementation of alternative non-utility generation plants, so-called "Qualifying Facilities." Fuel efficiency was increased when their customers utilized the hot water and steam normally discarded by the traditional centralized utility power plants. Comparative efficiency of fuel used in these plants rose from nominal utility generating factors of 35% in older plants to 60% and higher in non-utility generators (NUGs). Some of them were designed to burn refuse and otherwise curtail the use of foreign oil. By the mid 1990s, fully ten percent of national generation capacity was vested in NUGs. The convenient and cost-effective supplies available from these non-utility generators proved to many that the traditional idea that utilities were a natural monopoly was made obsolete.

Further, PURPA also required utilities to buy excess power from the so-called "cogenerators" when available at prices set to avoid the cost of building new centralized power plants. Such "avoided cost" long-term contracts started a new trend in power economics and also stimulated 300 or so new companies to enter the cogeneration business. These long term purchase contracts now present a financial problem for utilities because the contracted prices often are higher than current competitive prices. This new business then stimulated generator manufacturers to develop even more efficient on-site gas-fired and non-combustion power plants.

PURPA also required utilities to finance energy efficiency building retrofits through "Demand Side Management" (DSM) rebates if they could defer the need for building additional power plants. Investments in demand side application improvements became less costly than further efficiency improvements in supply side generation. In addition, research into alternative sources of energy and fuels was federally funded by the newly formed Department of Energy (DOE) to pursue alternatives such as fuel cells, photovoltaics, wind driven generators, tides, geophysical and hydro, and oil from shale deposits, in addition to more energy efficient products. These policies forced OPEC to remove the oil embargo and return to competitive oil pricing. But the emphasis on energy conservation was to remain and actually was enhanced by consumer demand through the 1980s. In addition, concerns for environmental impact of burning fossil fuels and managing radioactive nuclear waste were added to the national priorities.

Large commercial/industrial energy users with multi-state facilities quickly became aware of the economies of cogeneration and the potential for on-site distributed power plants. They also became discontented with the variation in regulated prices for electricity that existed from state to state. They organized lobby activities through the Electricity Consumers Resource Council (ELCON), formed in 1976, to develop federal and state policies that would permit them to acquire power competitively from sources outside the regulated monopolies. In addition, municipal utility companies that traditionally purchased power from investor-owned utilities began to request competitive bids for power contracts and shifted more purchases to the non-utility generators. IOUs countered with demands for release from their competitive restrictions.

Their lobbying efforts were successful and Congress passed the Energy Policy and Conservation Act of 1992 (EPAct).

This law was an omnibus statement on energy policy that took many years to take affect. But, now its initial impact is being followed with a tidal wave of industry restructuring. Administration of EPAct was assigned to the Federal Energy Regulatory Commission (FERC), an office of the Department of Energy. Its mission is stated as follows:

> "The Commission approves rates for wholesale electric sales of electricity and transmission in interstate commerce for private utilities, power marketers, power pools, power exchanges and independent system operators. The Commission acts under the legal authority of the Federal Power Act of 1935(FPA), the Public Utility Regulatory Policies Act of 1978 (PURPA), and the Energy Policy Act of 1992 (EPAct). The Commission oversees the issuance of certain stock and debt securities, assumption of obligations and liabilities, and mergers. The Commission reviews the holding of officer and director positions between top officials in utilities and certain other firms they do business with. Finally, the Commission reviews rates set by the federal power marketing administrations, such as the Bonneville Power Administration, confers exempt wholesale generator status under the EPAct, and certifies qualifying small power production and cogeneration facilities."

FERC issued final EPAct regulations numbers 888 and 889 in 1996. A thorough understanding of their impact is important to this project. Summaries of these FERC rules are presented in the reference boxes.

(ORDER NO. 888 FINAL RULE (Issued April 24, 1996) "Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities")

"INTRODUCTION/SUMMARY Today the Commission issues three final, interrelated rules designed to remove impediments to competition in the wholesale bulk power marketplace and to bring more efficient, lower cost power to the Nation's electricity consumers. The legal and policy cornerstone of these rules is to remedy undue discrimination in access to the monopoly owned transmission wires that control whether and to whom electricity can be transported in interstate commerce. These rules are the rules on open access and stranded costs in the above dockets (FERC Stats. & Regs.31,036), and an accompanying rule on Open Access Same-Time Information System and Standards of Conduct (OASIS Final Rule) (FERC Stats. & Regs. 31,037) being issued contemporaneously. The Commission also is issuing contemporaneously a notice of proposed rulemaking on capacity reservation open access transmission tariffs in Docket No. RM96-11-000, FERC Stats. & Regs. 32,517. These final rules and proposed rule are being published concurrently in the Federal Register.

"Docket Nos. RM95-8-000 - 2 - and RM94-7-001 address recovery of the transition costs of moving from a monopoly-regulated regime to one in which all sellers can compete on a fair basis and in which electricity is more competitively priced. In the year since the proposed rules were issued, the pace of competitive changes in the electric utility industry has accelerated. By March of last year (1995), 38 public utilities had filed wholesale open access transmission tariffs with the Commission. Today, prodded by such competitive changes and encouraged by our proposed rules, 106 of the approximately 166 public utilities that own, control, or operate transmission facilities used in interstate commerce have filed some form of wholesale open access tariff.

"In addition, on March 29, 1995, the Commission issued two notices of proposed rulemaking concerning open access transmission and stranded cost recovery. Promoting Wholesale Competition Through Open-Access Non-Discriminatory Transmission Service by Public Utilities and Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, Notice of Proposed Rulemaking and Supplemental Notice of Proposed Rulemaking, 60 FR 17662 (April 7, 1995), FERC Stats. & Regs. 32,514 (1995). On December 13, 1995, the Commission issued a notice of proposed rulemaking on information systems. Real- Time Information Networks and Standards of Conduct, Notice of Proposed Rulemaking, 60 FR 66182 (December 21, 1995), FERC Stats. & Regs. 32,516 (1995). The Commission's notice of proposed rulemaking in the above dockets proposed to apply the proposed requirements to public utilities that own and/or control facilities used for the transmission of electric energy in interstate commerce. "Own and/or control" is intended to include public utilities that "operate" facilities used for the transmission of electric energy in interstate commerce. However, we have modified the Final Rule regulatory text to remove any ambiguity. Docket Nos. RM95-8-000 - 3 - and RM94-7-001 proposed rules were issued, numerous state regulatory com-

missions have adopted or are actively evaluating retail customer choice programs or other utility restructuring alternatives.

"These events have been spurred by continuing pressures in the marketplace for changes in the way electricity is bought, sold, and transported. Increasingly, customers are demanding the benefits of competition in the growing electricity commodity market. The Commission estimates the potential quantitative benefits from the Final Rule will be approximately $3.8 to $5.4 billion per year of cost savings, in addition to the non-quantifiable benefits that include better use of existing assets and institutions, new market mechanisms, technical innovation, and less rate distortion.

"The continuing competitive changes in the industry and the prospect of these benefits to customers make it imperative that this Commission take the necessary steps within its jurisdiction to ensure that all wholesale buyers and sellers of electric energy can obtain non-discriminatory transmission access, that the transition to competition is orderly and fair, and that the integrity and reliability of our electricity infrastructure is maintained. In this Rule, the Commission seeks to remedy both existing and future undue discrimination in the industry and realize the significant customer benefits that will come with open access. Indeed, it is our statutory obligation under sections 205 and 206 of the Federal Power Act (FPA) to remedy undue discrimination. Docket Nos. RM95-8-000 - 4 - and RM94-7-001 To do so, we must eliminate the remaining patchwork of closed and open jurisdictional transmission systems and ensure that all these systems, including those that already provide some form of open access, cannot use monopoly power over transmission to unduly discriminate against others.

"If we do not take this step now, the result will be benefits to some customers at the expense of others. We have learned from our experience in the natural gas area the importance of addressing competitive transition issues early and with as much certainty to market participants as possible. Accordingly, in this proceeding and in the accompanying proceeding on OASIS, the Commission, pursuant to its authorities under sections 205 and 206 of the FPA: requires all public utilities that own, control or operate facilities used for transmitting electric energy in interstate commerce to file open access non-discriminatory transmission tariffs that contain minimum terms and conditions of non-discriminatory service; to take transmission service (including ancillary services) for their own new wholesale sales and purchases of electric energy under the open access tariffs; to develop and maintain a same-time information system that will give existing and potential transmission users the same access to transmission information that the public utility enjoys, and further requires public utilities to separate transmission from generation marketing functions and communications; clarifies Federal/state jurisdiction over transmission in interstate commerce and local distribution and provides for deference to certain state recommendations; and Docket Nos. RM95-8-000 - 5 - and RM94-7-001, permits public utilities and transmitting utilities to seek recovery of legitimate, prudent and verifiable stranded costs associated with providing open access and FPA section 211 transmission services.

"Open Access: The Final Rule requires public utilities to file a single open access tariff that offers both network, load-based service and point-to-point, contract-based service. The Rule contains a pro forma tariff that reflects modifications to the NOPR's proposed terms and conditions and also permits variations for regional practices. All public utilities subject to the Rule, including those that already have tariffs on file, will be required to make section 206 compliance filings to meet the new pro forma tariff non-price minimum terms and conditions of non- discriminatory transmission. Utilities may propose their own rates in a section 205 compliance filing. The Rule provides that public utilities may seek a waiver of some or all of the requirements of the Final Rule. In addition, non-public utilities may seek a waiver of the tariff reciprocity provisions.

"The Final Rule does not generically abrogate existing requirements contracts, but will permit customers and public utilities to seek modification, or termination, of certain existing requirements contracts on a case-by-case basis. As to coordination arrangements and contracts, the Rule finds that these arrangements and contracts may need to be modified to remove unduly discriminatory transmission access and/or pricing Docket Nos. RM95-8-000 - 6 - and RM94-7-001 provisions. Such arrangements and agreements include power pool agreements, public utility holding company agreements, and certain bilateral coordination agreements. The Rule provides guidance and timelines for modifying unduly discriminatory coordination arrangements and contracts, and specifies when the members of such arrangements must begin to conduct trade with each other using the same open access tariff offered to others.

"The Final Rule also provides guidance regarding the formation of independent system operators (ISOs). The Rule does not require any form of corporate restructuring, but will accommodate voluntary restructuring that is consistent with the Rule's open access and comparability policies. As discussed in the NOPR, not all owners or controllers of interstate transmission facilities are subject to the Commission s jurisdiction under sections 205 and 206 of the FPA and therefore are not subject to this Rule's open access requirements. Therefore, the Final Rule retains the proposed reciprocity provision in the pro forma tariff. Without such a provision, non-open access utilities could take advantage of the competitive opportunities of open access, while at the same time offering inferior access, or

no access at all, over their own facilities. Thus, open access utilities would be unfairly burdened.

"We note that some non-jurisdictional utilities have expressed an interest in a mechanism for obtaining a Commission determination that their transmission tariffs satisfy the Docket Nos. RM95-8-000 - 7 - and RM94-7-001 reciprocity provisions in the pro forma tariffs, and we provide such a mechanism in the Rule.
"The Final Rule does not generically provide for market-based generation rates. Although the Rule codifies the Commission's prior decision that there is no generation dominance in new generating capacity, intervenors in cases may raise generation dominance issues related to new capacity. In addition, to obtain market-based rates for existing generation, we will continue to require public utilities to show, on a case-by-case basis, that there is no generation dominance in existing capacity. Further, in all market-based rate cases, we will continue to look at whether an applicant and its affiliates could erect other barriers to entry and whether there may be problems due to affiliate abuse or reciprocal dealing.

"Finally, contemporaneously with this Rule the Commission issues a NOPR on capacity reservation tariffs as an alternative, and perhaps superior, means of remedying undue discrimination. Transmission/Local Distribution The Rule clarifies the Commission's interpretation of the Federal/state jurisdictional boundaries over transmission and local distribution. While we reaffirm our conclusion that this Commission has exclusive jurisdiction over the rates, terms, and conditions of unbundled retail transmission in interstate commerce by public utilities, we nevertheless recognize the very legitimate concerns of state regulatory authorities as they contemplate direct retail access or other state restructuring Docket Nos. RM95-8-000 - 8 - and RM94-7-001 programs. Accordingly, we specify circumstances under which we will give deference to state recommendations.

"Although jurisdictional boundaries may shift as a result of restructuring programs in wholesale and retail markets, we do not believe this will change fundamental state regulatory authorities, including authority to regulate the vast majority of generation asset costs, the siting of generation and transmission facilities, and decisions regarding retail service territories. We intend to be respectful of state objectives so long as they do not balkanize interstate transmission of power or conflict with our interstate open access policies.

"Stranded Costs: With regard to stranded costs, the Final Rule adopts the Commission's supplemental proposal. It will permit utilities to seek extra-contractual recovery of stranded costs associated with a limited set of existing (executed on or before July 11, 1994) wholesale requirements contracts and provides that the Commission will be the primary forum for utilities to seek recovery of stranded costs associated with retail-turned-wholesale transmission customers. It also will allow utilities to seek recovery of stranded costs caused by retail wheeling only in circumstances in which the state regulatory authority does not have authority to address retail stranded costs at the time the retail wheeling is required. The Rule retains the revenues lost approach for calculating stranded costs and provides a formula for calculating such costs."

(ORDER NO. 889 FINAL RULE (Issued April 24, 1996) "Open Access Same-Time Information System (formerly Real-Time Information Networks) and Standards of Conduct.")

"SUMMARY: The Federal Energy Regulatory Commission is amending 18 CFR to add Part 37 containing rules establishing and governing an Open Access Same-time Information System (OASIS) (formerly real- time information networks) and prescribing standards of conduct. Under this final rule, each public utility (or its agent) that owns, controls, or operates facilities used for the transmission of electric energy in interstate commerce will be required to create or participate in an OASIS that will provide open access transmission customers and potential open access transmission customers with information, provided by electronic means, about available transmission capacity, prices, and other information that will enable them to obtain open access non-discriminatory transmission service. This final rule requires (1) each public utility subject to the rule to implement standards of conduct to functionally separate transmission and wholesale power merchant functions and (2) the creation of a basic OASIS system. In addition, some of the standards and formats for OASIS nodes are prescribed in a document entitled OASIS Standards and Communication Protocols that is being issued with the final rule. The Commission also is establishing further procedures to complete the standards for displays and formats. The development of OASIS requirements will continue in a Phase II, in which the Commission will continue to develop the requirements for a fully functional OASIS."

Among the other policies in EPAct were provisions that mandated more efficient electrical consumer products, and energy conservation in all federal buildings through the Federal Energy Management Program (FEMP). FEMP maintains a list of all qualified performance contractors on its Internet site at http://www.eren.doe.gov/femp. Implementation of these provisions was assigned to the U.S. Department of Energy (DOE). Products meeting the energy efficiency criteria were authorized to carry the "Energy Star" label. The Energy Star program is administered by the Environmental Protection Agency (EPA), under the assumption that reducing use of electricity will help reduce its pollution of the atmosphere.

STATE REGULATION ISSUES

States with higher incumbent electric power charges obviously face incentives to reduce prices through competition in order to save jobs and provide desirable locations for industrial and commercial expansion. In contrast, states with prices for power that are below the national median.have less incentive to deregulate. However, regardless of the pricing impact of competition, potential gains in technology, consumer choices, and economic growth are pushing the states to adopt some form of consumer choice legislation. In a 1998 report for the Research Institute for Small & Emerging Business (RISE), XENERGY Consulting, Inc. developed several political issues states must successfully resolve in order for consumer choice to move forward. Here is an edited summary of the state deregulation issues that must be resolved in the local political process.

Issue 1. *Customer Choice Schedule.* When will the retail choice be phased in and which customers will get to choose first? California was the first state to invoke consumer choice without any pilot testing or a phased-in schedule. The RISE position is that phased-in customer choice should not create competitive inequities among users based on arbitrary timing that would allow some customers to choose alternative electricity suppliers before others. Nevertheless, this is precisely what has happened in the early adopter states. Usually, the largest volume users have been given first chance to select alternative suppliers, commercial/industrial customers later, with residential users coming in last. A stretched out schedule also provides additional time for incumbent utilities to develop strategies to counter competition from outside suppliers.

Issue 2. *Stranded Cost Recovery.* Who will bear the burden of responsibility for payment of stranded costs, i.e., the sunk costs associated with utility investments made during the previous regulated regime that would not otherwise be recoverable in a competitive market place? Will it be consumers in higher prices and delayed competition, or will be utility stockholders who experience declines in value with cost writeoffs? Most consumer advocates believe that utilities should be accountable for at least some of their stranded costs. Conservative economists see no reason why consumers should pay for poor investment decisions and obsolete utility systems. But, early adopter states have made some provision to protect utility stock holders from such losses. Among the options are restricted price floors, as in Massachusetts, and issuance of state bonds to finance stranded costs repayable through utility bills, as in California. All such strategies require customers to pay higher than market prices for many years until the stranded cost recovery is completed, thus stifling competition. Efforts to roll back these provisions in Massachusetts and California by consumer advocates failed to gain voter approvals in 1998. Utilities claim these are normal costs of transition of open competition they have a right to recover. Another option is for states to require utilities to sell their unprofitable generation plants as did Maine, thereby removing stranded costs from their books and replacing them with positive cash flows. The opposing positions on stranded transition costs are presented fully in Appendix I of the reference guide.

Issue 3. *Mandatory Rate Reduction.* Will consumers be eligible for automatic rate reductions at the initial time deregulation is begun? RISE noted that mandatory rate reductions are desirable unless they delay the onset of competition or are used by incumbent utilities to gain support for recovery of stranded costs in excess of those truly affected by competitive market prices. The policy of protecting incumbent utilities in Massachusetts made it effectively impossible for outside competitors to offer prices lower than the standard rate of 2.8 cents/kWh and, thus, prevented true competition from outside suppliers. By decoupling the costs of generation from the cost of delivery, the MA legislature effectively protected the stranded costs of incumbent utilities. The plan in California included formation of an independent power exchange that sets standard prices via auctions in the wholesale

"States with higher incumbent electric power charges obviously face incentives to reduce prices through competition in order to save jobs and provide desirable locations for industrial and commercial expansion."

market. Energy services providers must beat the standard price if they are to sign up customers independently.

Issue 4. *Default and Standard Offer Generation Service.* Will all customers be forced to choose another supplier or will a default supplier be assigned if they do not make a selection? The designation of a default supplier will enable consumers to continue receiving power during the transition to competition, since smaller users may not have ability or resources to effectively analyze and select among all the options in the early phase of the transition. The default supplier usually is the incumbent distribution company. In California, default prices were set so low that only 2 out of 36 licensed power marketers were offering residential services a year after consumer choice began, and they were concentrating on premium priced "green power" sources.

Issue 5. *Load Aggregation.* How difficult will it be for competitive suppliers to aggregate loads in order to sell power to a block of customers? Most commercial buildings are under 100,000 square feet, and most building tenants are small business owners. RISE recommends that regulations should facilitate small loads to be grouped to gain economies of scale and wield greater purchasing power than would be likely individually. This is apparently the favorite strategy of many power marketers who have already signed up aggregated loads by aggressive marketing to various consumer groups and trade association memberships in the deregulated states. Several power marketers also have aggregated the loads of national chains into a common block, coupling power with energy management services and consolidated billing. But there appears to be some concerns about state policies that would permit communities or municipalities to aggregate their entire populations as a group.

Issue 6. *Metering, Billing, and Load Profiling.* How will the costs be allocated among various customer classes, and will metering and billing services be open to competition? Opening these services to competition is expected to drive more technical innovations and benefit consumers with lower costs and more control of their usage patterns. Several new automatic metering systems now are available, and California included metering and billing options in its customer choice program. The advantage of competitive billing services must be weighed against the increased complexity of consumer choices and need for mass education to protect against consumer fraud.

Issue 7. *Supply Reliability.* What policies are being implemented to assure continued reliability of the distribution system, and will any pricing provisions be made for assuming different levels of risk? Several schemes are being studied to solve this issue, and one that seems to be gaining acceptance is setting up a regulated independent system operator (ISO) company to operate the system for the competing exempt wholesale generators who will make use of it. Several companies have petitioned FERC to set up interstate transmission companies also. Any such organization of wholesale transmission must be approved by FERC.

Issue 8. *Price Volatility.* How can states protect consumers from price variations that will come with deregulation in a competitive market? During the summer peak loads of 1998, prices spiked as high as 100 times normal for short periods throughout the Midwest. The independent futures exchange set up in California saw daily prices of power fluctuate from zero to $180 per mWh in 1998. Users are likely to be risk averse to rising prices in a free market when demand outpaces supply. The best assurance seems to be a policy that encourages maximum diversity among competing suppliers to spread the risk as widely as possible.

Issue 9. *Customer Education and Consumer Protection.* How can users gain an understanding of the complex options and be protected again fraudulent and deceptive marketing practices? After spending $millions in California, independent surveys found that a majority of consumers still were less than adequately qualified to make the complex choices involved in selecting suppliers. When the variable elements of a typical bill were separated into separate line items, the situation was made practically untenable as more than a dozen separate cost items needed to be analyzed to pick the best provider. Regulations also must protect consumers against fraudulent and deceptive practices including unauthorized switching, billing fraud, and unethical marketing communications that may conflict with initiatives to protect consumer confidentiality and support maximum innovations.

Issue 10. *Competitive Systems Transition Charges and Tax Implications.* How will system transition charges and tax implications impact restructuring? Both of these issues may be inevitable implications of restructuring. Their solutions will be reflected in both prices and

tax changes that may be required when out-of-state suppliers not subject to incumbent taxes move into the area. Some local political jurisdictions have been reported to depend on utilities for up to half of their tax revenues. In New Jersey, GPU Energy utility executives complained that costs of social programs, taxes, and mandated IPP generation contracts added 50% to utility bills and left little room for any additional reductions without sacrificing utility jobs and reliability of service. If foreign companies are permitted access, alternatives to lost tax revenues obviously will be needed. One solution may be imposing a competitive transition charge on sales of all competitors, which would, of course be passed through to consumers.

Issue 11. *Unfair Marketing Power of Incumbent Utilities.* How will incumbent utilities be enjoined from gaining unfair advantage due to their established market presence, brand name recognition, customer usage records, and financial wealth? Both outside energy competitors and state licensed electrical/mechanical contractors need a level playing field that is not definitely tilted in favor of incumbent utilities. Incumbent utilities argue that using utility employees for dual assignments, i.e., systems maintenance and customer services, or assigning capital equipment to unregulated subsidiaries is more cost effective and helps preserve their jobs as well as protect stockholders' interests. In addition to incumbent companies, contractors face the inevitable power of unregulated energy services providers from out of state that can either acquire contractors or obtain business contracting licenses to bundle power with services and so compete in local area markets. They fear the market power of all utilities that are permitted to cross-subsidize competitive activities with resources gained from regulated monopoly operations. The answer seems to be requiring utility holding companies to set up wholly owned, but financially separated, unregulated subsidiaries and operating them at arms length from the parent utility under scrupulous scrutiny of the state public utility commission.

Issue 12. *(Editorial Addition) Financial Cross Subsidization.* The permission for self-dealing granted utilities by EPAct has stimulated concern by building trades contractor groups about the potential for cross-subsidizing unregulated operations with funds generated by the regulated operations, both past and present. Perhaps the HVAC industry is most at risk of cross-subsidies as so much of the work involved in energy efficient retrofits is done by the mechanical trades. This issue is highly charged, and massive legal resources are allied on both sides of it. A most eloquent complaint on behalf of the HVAC industry was written by Richard C. Carlson, Chairman, Spectrum Economics, Inc. and published by PMA OnLine Magazine: 07/98. An excerpt from his introduction follows:

> "If done properly, electric deregulation promises to create a competitive market for retail sales of electricity which should lead to substantial energy cost savings for most consumers. However, early experience with deregulation has demonstrated that there are several substantial, unexpected problems. One such problem is the cross-subsidization of utility affiliates in unregulated service industries which threatens to undermine competition in these service industries as well as to reduce cost savings to consumers of electricity. The current pattern of electric deregulation creates strong economic incentives for such cross-subsidized market entry.
>
> " Cross-subsidization occurs when an affiliate in an unregulated market is able to price its product or services below cost due to its relationship with a regulated entity. Whether this cross-subsidy takes the form of covering the affiliates losses with revenues from the regulated utility or arises from the use of assets of the regulated entity to reduce the cost of providing service, the unregulated affiliate enjoys a competitive advantage due to its relationship with the regulated monopoly. This internal subsidy is borne, directly or indirectly, by the consumers of the regulated entity.
>
> "The most obvious example of cross-subsidized utility entry into new markets is the move of several utilities into the heating, ventilation, air-conditioning and refrigeration (HVACR) market. Members of the HVACR service industry have witnessed an unprecedented and growing incursion into the HVACR service

market by utility affiliates in recent years. In a few states, such as Delaware and Maryland, utility affiliates have used their market power and cross-subsidies to suddenly gain over a 20% share of the HVACR market. These affiliates have enjoyed substantial cross-subsidies from their related utilities in the form of free advertising, free marketing, free customer information, free or reduced cost employees and free equipment. These cross-subsidies impose costs on the electric consumer and are contrary to the goals of open competition on which deregulation is premised."

(The full text of this statement is available at http://www.retailenergy.com/articles/carlson.htm.)

"A policy study conducted for EEI by a leading economic research firm concludes that efficient competition requires that cross subsidization be prevented."

How can state regulators assure that parent company financial resources will not be used to cross subsidize unregulated operations in competition with established customer services infrastructure? A staff market power discussion paper prepared for the Michigan PUC explored this issue in depth. (Case No. U-11290). Among other concerns, it noted the following (paraphrased):

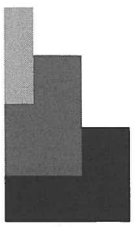
> Arrangements that tie unregulated subsidiaries too closely to the parent might be violations of Section I of the Sherman Act and Section 3 of the Clayton Act. These antitrust laws have been used to promote particular social, populist objectives such as limiting business size, protecting small business from large corporations, and expanding opportunities for entrepreneurs. However, in recent years courts have taken a more narrow approach in interpreting these statutes, and "populist" objectives have largely been left up to the market place. State public utility commissions have been reluctant to regulate non-utility activity of holding companies unless real and direct harm to rate payers is proven. Utility defense includes the right to compete with normal practices, even though they may prove harmful to a competitor.

A policy study conducted for EEI by a leading economic research firm concludes that efficient competition requires that cross subsidization be prevented. However, it stated (paraphrased) that:

> "draconian restrictions that limit benefits (i.e., lower prices, better quality, more services) to consumers are not necessary to remedy cross subsidization." Policy makers must recognize that cost-shifting and cross subsidization are distinct, having different implications, and that price cap regulation will be most effective in controlling cross subsidies and reducing cost-shifting concerns. The EEI study concluded that price cap regulation curtails cross subsidy and cost-shifting incentives.
>
> "Largely because of its superior efficiency and innovation incentives, price caps have become the dominant form of regulation in the telecom industry. This experience is instructive because the telecommunications industry has had to cope with cross subsidization and competitive market issues more extensively than electric utilities. Policy makers should heed this experience as they design rules for restructured power markets. A useful alternative within the traditional cost of service rate making process is to use cost separation and allocation mechanisms which can guard against cross subsidization."

NECA co-sponsors the Alliance for Fair Competition that represents interests of contractors at federal and state levels in conjunction with other trade contractor groups. Efforts of the alliance should be considered for support by affiliated association chapters.

Issue 13. *(Editorial Addition) Appropriate and Effective Legislative Representation.* How can all the stakeholders in a state, including electrical/mechanical contractors, be motivated to take an active role in state deliberations before final enactment of legislation and implementing regulations that may be harmful to their interest? Consumers often are represented by consumer advocates, but most small business contractors have neither the time nor the skilled resources to actively participate in the state deregulation process. It is up to their representative organizations, such as NECA and IEC,



to stimulate the interest and support needed to adequately staff competent counsel and participation in state deliberations as soon as they emerge. It is already too late to affect the enabling legislation and regulations in several early adopter states that have implemented consumer choice. After state laws are enacted, the drama shifts to the regulatory body that must write enabling rules for competitive operations.

In addition to these issues, some states wonder if they should deregulate at all. States with utility rates lower than the national median of 6.92 cents per kilowatt-hour have a stake in keeping the present system in place, because deregulation might actually cause price increases. So a group of 23 states with lower rates formed the Low Cost Electricity State Initiative (LCESI) to lobby Congress for the right to choose whether or not they will join the crowd and open all consumer classes to competition. The LCESI seeks to: publicize the importance of preserving low rates for native customers, shelter rural electric rates from price increases in a competitive market, raise awareness of "negative stranded costs" and protect states rights to allocate such costs, and ensure that economic advantages of low-cost states are not eroded by restructuring. Dr. B.J.Helton, chair of the Kentucky PSC said that since the wholesale and retail markets are very different, – "we believe that the states are better able to assess how the market should lay out in the individual states."

Their worry is that regulated utilities currently serving low-cost states would, if deregulated, begin selling their power in higher cost areas at rates higher than they charge in their native areas, but still lower than the higher cost suppliers. Then rates to native customers might rise to that common level. Higher rates would be harmful to rural customers that have benefited from low cost hydro and coal fired supplies. The stranded cost issue works in reverse of high cost states where utilities have been successful in getting price adjustments to cover payback of non-competitive generation facilities. In low-cost states, the market value of generation plants might be higher than book value, and that could be money in the bank for native consumers that could be lost under a federal mandate. So, through its lobbying efforts the LCESI wants to assure that an "opt out" clause is included in any federal legislation being considered to mandate state deregulation.

As deregulation events occur continually, it will be useful to download the current version of state developments that is updated monthly. It is available, along with detailed state-by-state legislative summaries, from the U.S. Department of Energy web site at http://www.eia.doe.gov/cneaf/electricity/chg_str/regmap.html

INTEGRATED MARKETING

Although it is difficult to understand why, there are many electrical/mechanical contractors who prefer to compete only in the low_no profit, high risk competitive bid new construction market. Apparently, there are many who are completely contented with what is. Thankfully, many others have become interested in developing more profitable customers through better marketing. Although the industry devotes extensive time and resources to training of field workers, very little effort is invested in better marketing. This material is for those contractors who are discontented enough with what is to give some serious consideration to better marketing as a solution.

For years now, it has been documented in financial and marketing research, some conducted by the national electrical/mechanical contractors associations, that happy contractors pursue less competitive bidding and more negotiated work, both in new construction and in existing buildings, than unhappy contractors. With pressure increasing from unregulated utility subsidiaries, power marketers, and independent energy service companies, electrical/mechanical contracting now is under attack by powerful marketers who want a share of your business. What's a contractor to do? The answer may lie in a new concept of marketing called ***IntegratedMarketing**tm* *Early adopters of new trends may well find this discussion the most profitable investment of the next 30 minutes or so you could possibly make. Please read on.*

Professor Theodore Levitt of Harvard has written, "The difference between marketing and selling is more than semantic. Selling focuses on the needs of the seller, marketing on the needs of the buyer. Selling is preoccupied with the seller's need to convert his product/service into cash, marketing with the idea of satisfying the needs of the customer by means of the product/service and the whole cluster of things associated with creating, delivering, and finally consumer it. A truly marketing-minded firm tries to create value-added satisfying goods and services that consumers will want to buy."

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Here is a complete checklist for **IntegratedMarketing**[tm], the most cost_effective way of new business development. A brief discussion of each step in the overall process follows. It really is not as complicated as it looks at first glance. However, it may require some changes in the way you think about your business if you have been concentrating on low profit competitive bidding. Bear in mind that each step is subject to revision as the steps that follow may affect previous thinking. The process of marketing planning is continuous and ongoing because you must adapt to a business environment that is changing continually. The tasks can be performed in a linear, sequential schedule, but you probably will want to revisit them randomly as needs become more apparent.

IntegratedMarketing[tm]

1. SELECT MARKET SEGMENTS
2. CREATE COMPETITIVE POSITION
3. MAKE STAFF ASSIGNMENTS
4. SET UP BUDGET ACCOUNTS
5. ORGANIZE PARTNERSHIPS
6. INSTALL CONTACT SOFTWARE
7. COMPILE PROSPECT LIST
8. CHOOSE COMMUNICATING METHODS
9. CREATE SALES COLLATERAL
10. CONDUCT SALES PROMOTION
11. IDENTIFY PROJECTS
12. ESTIMATE AND PRODUCE BIDS/PROPOSALS
13. CLOSE/NEGOTIATE SALES
14. INTEGRATE CUSTOMER SATISFACTION TEAM
15. SURVEY CUSTOMER OPINIONS
16. OBTAIN REFERRALS
17. EVALUATE RESULTS
18. REVISE THE PLAN
19. ENJOY AN INTEGRATED LIFE
20. PATIENCE AND PERSISTENCE PAYS

1. Select Market Growth Segments _Most contractors end up doing what they do through a trial and error approach. Over a period of time, they may develop a set of customers and continue to repeat the same work over and over until they run out of jobs. It is better to survey the overall market of electrical/mechanical contracting and pick those segments of the business that offer the best potential for growth, because the best potential for profits exists in market segments that are growing, in which demand is outpacing supply. By the time most contractors catch on and profits are depressed, it is time to find a new growth opportunity.

Prof. Theodore Levitt has said, "A firm that is not thinking segments is not thinking." Market segments can be selected from among types of buildings, types of work, and specialty product/service niches. Possibly, four sales goals should be selected for growth in priority order according to the relative cost of development and increasing risk:

- More similar businesses from existing customers,
- More similar businesses from additional customers,
- New business from existing customers,
- And new business from new customers.

This planning task may require conducting some research to find out what producers of power and products are selling that you are not buying, and what customers are planning to buy. In fact, the first rule of marketing may be, "Learn where your customers are headed and run around to get in front of them." Research may consist of formal mail, personal, or telephone surveys, collecting information from secondary sources,

or convening focus groups. Trade associations, such as the national electrical/mechanical contractors associations, sometimes provide members with reports on future trends that can be used in marketing planning.

2. Create a Competitive Position _ Even with market data, it still takes some intuitive ability to "see around corners" in order to detect new opportunities before others catch on. It also means having the courage to drop out of segments saturated with too many competitors that no longer are profitable, unless you can create some form of added value that justifies higher margins. Often, the contractor has so much of himself invested in his company that new opportunities are lost in getting the present jobs done. So it might be a good idea to organize a "future planning committee" among the company leaders to help identify growth markets and implement means to improve productivity.

The future planning committee might also work on developing a "brand" for the company, i. e., a special name or phrase that will help to give it a unique market position to help separate it from all similar competitors. For example, we all know that Southwest Airlines is the "low cost" airline. And Ivory soap is "99 44/100 percent pure." Although the future planning committee may meet formally at regular intervals, suggestions for corporate development should be encouraged at any time that imaginative ideas arise.

The ability to perform profitably in the selected market segments requires trained and motivated field and office crews, office and job site tools and equipment, as well as the marketing staff. Customers look for skills in cost control, project management, safety, skilled crews, and customer service, so these deliverables must be developed for each segment.

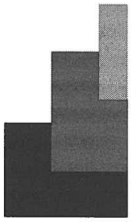
Do you need engineering and CAD capabilities? Could your employees benefit from training in telecommunications, or controls, or fiber optics? Nothing is worse than creating demand for services you cannot provide. It is important to assure yourself of the ability to perform competitively before you begin to create new marketing programs. However, marketing activities must be planned and rolled out in a timely fashion to assure a supply of customers coordinated with the capability to respond.

It is not necessary to hire people with all the needed new skills. Often, it is possible to arrange partnerships with suppliers, i.e., engineers and accountants, who can provide the specialized people on an "as needed" basis. Sometimes, home based business owners can be found in your area with all the needed skills and equipment. Students at local colleges also may be available part time to help fill your needs.

3. Make Staff Marketing Assignments _ There are five necessary and sufficient jobs for a complete marketing operation. These are: marketing director, marketing coordinator, estimator, marketing communicator, and business development rep. *(Detailed job descriptions are provided in the appendix.)* Small contractors wear all these hats, but the larger the company the more necessary it is to assign these jobs to specific people. In medium size companies, the jobs can be done part time by existing people or they can be out sourced to part time contractors. Students and family members can also be recruited part time. Many colleges and universities have business faculty members who will be glad to work out student projects that could be done well at low cost. Instructors may be available for part time assignments between school terms.

Larger contractors may need to consider alternative compensation plans to attract and motivate marketing professionals for these positions. Such people like to have some part of their compensation based on actual results. The most successful contractors engage all employees in the tasks of business development to some degree. After all, nothing happens unless somebody sells something. Staff continuing education in marketing and sales methods is a good investment. Subscriptions to professional marketing and sales journals and newsletters, and attendance at training seminars are recommended. Among the most useful are "Sales & Marketing Report (800-878-5331), "Marketing Tools" (607-273-6343 or www.marketingtools.com), SellingPower (800-752-7355 or www.sellingpower.com), and "Sales and Marketing Management" (800-821-6897 or www.salesandmarketing.com"). Also, maintaining an active membership in the Society for Marketing Professional Services provides excellent networking opportunities with architects, engineers, and general contractors. Call 703-549-6117 for information.

4. Set Up Budget Accounts _ Marketing is a cost of doing business and, therefore, it should be accounted for in bookkeeping methods. A chart of accounts that does not include sufficient categories for



marketing activities will make it impossible to allocate budgets and keep track of expenses. A marketing budget of 2_7% of annual revenue is an appropriate goal, depending upon company size. Smaller firms may need to spend a higher proportion on marketing functions. Of course, starting up business in a new segment demands a higher marketing budget at first. As marketing plans unfold, the chart of accounts may need to be revised from time to time in order to provide for adequate cost controls and expense reports.

5. Organize Marketing Partnerships _ Few contractors will be able to exist in the 21st century without business partners. The electrical/mechanical contracting business makes the point of contact between sellers of electrical/mechanical products and power, and the users of products and power. Therefore, partnerships with people in these groups in your area will be an important part of your marketing plan. They include new power and energy services marketers, distributors, factory and independent sales reps, architects and engineers, in addition to facility managers and general contractors. The deregulation of electric utilities is spawning creation of a whole new industry of energy services contractors who bundle power marketing with electrical/mechanical services. They may be highly valuable business partners.

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Creating marketing partnerships is the solution to shortage of time and capital because they multiply your out reach immeasurably. Many partnerships can be arranged with members of related trade ally associations who probably have chapters in your area. Offering to present seminars for their members on topics of interest can be very effective sales promotion. At least, it is a good idea to become associate members of user associations and attend regular monthly meetings to begin networking with potential customers.

6. Install Contact Software _ Sales automation techniques now permit tracking of prospects with appropriate software for desktop computers and laptops. They can be stand alone packages or integrated with office suites. Learning to use these modern tools beats the obsolete Rollodex card files and enables multiple user access to files. They are not extremely expensive and should be easy for the marketing coordinator to learn and to implement. In addition, computer access to the Internet also can be an extremely useful marketing tool. Somebody all ready employed in the office may be excited to learn these new skills.

This kind of software application comes integrated with the most popular office suites. An excellent stand-alone contact manager with high customer satisfaction scores is *Maximizer* - by Modatech Systems International, Inc. of Irving, TX. Phone 1-888-577-7803. An excellent contact manager that integrates with standard word processors is *InfoAccelerator* from Baseline Data Systems of Torrance, CA. Phone 800-429-5325 or www.baselineconnect.com.

7. Compile a Prospect List _ This is the process of putting potential customers into the top of a funnel and working them through to find profitable customers at the bottom. The process can be improved by several methods:

- Continually finding more prospects,
- Weeding out unqualified prospects,
- Contacting them more often,
- And communicating more persuasively.

If you work out the numbers, chances are you do not know enough people to meet your sales goals. If partnerships are developed with associations and professional societies containing prospects as members, they make a ready source of connections. Three national customer associations worthy of investigation are: Building Owners and Managers Association (202-408-2662), International Facility Management Association (713-623-4362, and Association of Energy Engineers (770-447-5083). You might also consider joining the Society for Marketing Professional Services (703-549-6117. This organization is composed of sales and marketing people employed by general contractors and A/E firms. As such, they know of projects in the early formation stage long before bids are prepared. Commercial list services provide a ready resource for local customers, and you can enlist field workers to help build your prospect list from people they know also.

8. Choose Communicating Methods _ Sales communications methods must be designed to create discontent with what is and to create preference for using your firm because contented people are not motivated to buy anything. There are many ways of communicating your service benefits to prospects. Of course, the most powerful is personal contact.

But most contractors cannot afford to hire enough sales people to reach enough prospects to meet their goals, and they do not have enough free time to do it themselves. Other methods must be used to keep your company in the mind of prospects when you cannot be there in person.

Selecting the most effective communications methods may require some trial and error to assure you have found those that are most cost effective. They can include customized customer brochures, newsletters, broadcast faxes, and company web sites on the Internet. In general, mass communications methods such as radio and tv are not recommended for electrical/mechanical contractors because of the tremendous waste involved, unless of course you are seeking residential maintenance work.

Direct marketing methods now are the most cost effective way of reaching your prospect audience. However, there may well be specialized industry information services that can be profitably employed in your trading area. Be sure to include editors of the news media, because they can become your best third party advocates. Favorable news about your company that runs regularly in news media free of charge is the best possible public relations. Public relations is good work, well communicated. If described from a news viewpoint, much of your company success may be aired on local radio or tv stations, as well as printed in local news papers.

9. Create Sales Collateral _ Every printed document about your firm must reflect your chosen marketing position. This means coordinated design of company stationery, business cards, estimates, invoices and sales receipts, plus professional looking customer-specific brochures, and the signs on your company vehicles. They all must be customized for each marketing segment in your strategic plan. Even a periodic newsletter for field employees and customers is created easily with standard office desktop software. With modern preprinted materials, there is little excuse for any electrical/mechanical contractor not appearing to be a professional business enterprise to the public and to his employees.

An excellent supplier of do-it-yourself materials is *Beaver-Prints* of Bellwood, PA. Phone 814-742-6070. Another version is *Design Portfolio* from Street-Wise Software. Phone 1- 800-743-6765. Software for creating such materials includes *My Brochures Mailers and More* from My Software Company. Phone 1-800-325-9095. Company logos and graphic images may be designed with *LogoWorks* from LogoExpress, Inc. Phone 1-800-362-5500. With these suppliers, you can customize materials for specific customer segments in low quantities at cost effective prices.

Of course, you can always invest in customized materials from professional graphic designers if no one wishes to learn these methods. But the anticipated benefits should always be worth the costs. In any case, all materials must be customer-specific; i.e., tailored to fit the interests of the prospect.

10. Conduct Sales Promotion _ This task is that of distributing information about your firm and its successful performance, as well as creating news that is worthy of free coverage by the local area press. Sales promotion offers the opportunity to be the most creative that you can be. Sales promotion may include golf outings and special lunches or advertising specialties, ranging from calendars, to pens, to sports and theater tickers, etc., for highly qualified prospects and preferred customers. But you must be careful to monitor this expense with timely feedback in order to relate results directly to the investment.

Also, all your field people can be enlisted in this effort, because they can distribute information about your firm and keep eyes open for new business opportunities with existing customers. Leave behinds may include company stickers placed on equipment and special sales promotion offers, or scheduled call backs. Specialty advertising novelties also can be effective, provided that they serve some useful purpose and have a long life expectancy.

11. Identify Projects _ For many contractors, this is the first step in their marketing plan. It may include getting commercially sold reports on construction or modernization projects coming out for bid. Unfortunately, by that time contractors who have been doing the tasks above may have an inside edge. If done effectively, the **IntegratedMarketing**[tm] tasks recommended above will naturally lead into uncovering projects with a higher profit margin. Because so few contractors invest in these steps, you do not have to do much of them or do them very well in order to be far ahead of most competitors. Keeping a steady stream of new projects coming in to estimate is the core of a marketing program. Relying on the phone to ring, even though it may ring often, could be limited to only existing customers in the long run. Remember the phone

works in both directions and you make calls as well as receive them.

It is often helpful to make presentations about your capability to new prime prospects in order to get information about possible upcoming needs that you can fulfill. Presentations can be made verbally at lunch or on the golf course, or in formal offices. They also can be aided with printed materials and portable computers. Two popular presentation software packages are included in commonly used office software suites. They are *PowerPoint* in MSWord and *Presentations* in Corel WordPerfect. Whether computerized or not, presentations are most effective when they are punctuated with questions crafted carefully to meet these specific sales "SNAP" goals:

- Determine customer **situations**,
- Discover customer **needs**,
- Investigate **alternative** solutions,
- And obtain **permission** to begin work.

12. Estimate and Produce Bids/ Proposals _ It is necessary only to estimate job costs and bid prices for openly advertised jobs. But they offer very little, if any, profit. To close more negotiated sales with higher profits, it will be necessary to prepare formal proposals. For smaller jobs, getting to this stage may be simple and quick, with only a single decision maker involved. For larger jobs, it may take some time and several meetings with groups of people before the project is established firmly enough to estimate. In those situations, you will need to identify all the decision makers and learn how they value the benefits of your plan.

Proposal documents must be customized to the complexity and cost of the job. They can be relatively short and simple or fairly long and detailed in proportion to job size and complexity. In any case, they must present the solution to the problem of a prospect that overcomes contentment and creates preference for your solution, persuasively but profitably for both seller and buyer. Remember, customers do not buy products and services, they buy solutions to problems.

Proposals must give the prospect a feeling that you offer confidence, enthusiasm, and concern for the successful outcome of the project. But they must not be so detailed as to permit obtaining optional estimates from your competitors. And, they must include a simple contract form that is easily understand and administered - not like the complex "legalese" developed by trade associations that attempt to cover every possible contingency and permit their constituents to avoid all likely liabilities. Standard forms of proposals can be created with common word processor programs and edited to customize them for specific projects. But check with a commercial lawyer to be sure your form of proposed contracts meet all state laws.

13. Close/Negotiate Sales _ Learning how to negotiate sales is an important part of **IntegratedMarketing**[tm]. When done professionally, the result should be a collaborative dialogue in which both the seller and the buyer believe they got the best deal possible. Being able to demonstrate consultative selling skills and proving financial payback that adds to the bottom line of your customers are two of the most important elements. Some untrained negotiators favor accommodation over control, and some favor control over accommodation.

Models of the negotiation process involve pursuing your own goals and the goals of the customer. Too much emphasis on either side will likely result in discontent, even if you do get the job. The best solution is to seek a balance between control and accommodation that produces a win-win solution for both the buyer and the seller. Such negotiation often is stressful for both sides, but the long term benefits outweigh the burdens for many. Of course, you can avoid this task by waiting for someone to ask you for a bid. But soon after award you will be involved in change orders, so negotiating cannot really be avoided after all.

14. Integrate the Customer Satisfaction Team _ After you get the job, marketing becomes "everything done by everyone in your firm as seen through the eyes of your customers" according to Prof. Peter Drucker. This means everyone in the office and everyone in the field must assume some responsibility in assuring customer happiness and delight in your services. The basic rule in Total Quality Management is, "treat others the way they want to be treated." That means not only delivering technical performance, but also appropriate behavior and appearance each time there is an encounter between any of your people and anyone on the customer side.

However, in order to get this kind of response, "your employees must be in love with your company," in the words of one contractor. "Otherwise, they are going to cost you money." From proposal to final

punch list, everyone has a role to play that will add to or detract from your marketing goals.

15. Survey Customer Opinions _ Let's face it, stuff happens. Murphy's Law states, "If anything can go wrong, it will." It is better for you to find and disclose mistakes than letting your customer find them. It may be too late to make amends to customers who are upset if you wait until the end of the job to get their opinion about your performance, behavior, and appearance. Therefore, it is important to measure customer opinion both formally and informally throughout the project. If your goal is to get unsolicited repeat business and or referrals, you must find out how your service compares with that of other suppliers to your customer continually, in time to solve problems.

The criteria for customer satisfaction are cost, service, project management, skilled workforce, and safety. But customers will rank these matters in differing priorities, so generalizations are not good enough. You must know how each customer ranks your firm in comparison with other service suppliers. Creating a simple survey form and including it with every invoice is a good way of gathering their opinions. Then you can take remedial action or make amends immediately if something is wrong before you lose a valuable fan.

16. Obtain Referrals _ All customers can be customers for life if you watch where they are going and run around and get in front of them, i.e., anticipate their needs and develop the capability to meet them. Also, everybody who knows you also knows somebody else who may need your services. That includes all your field people as well as the office staff. If all your customers and all your partners and all your employees are looking out for your company benefit, think how powerful your marketing team can be. Enlist their aid in referring you to other possible customers because you have earned it.

It is best if you can get customers to actually make the calls and give your name to other prospects. If you have been exhibiting the appropriate confidence, enthusiasm, and concern for your customers, they will not be reluctant to do so.

17. Evaluate Results _ This is a continuing effort to measure the return on your investment in **IntegratedMarketing**[tm]. Marketing is more of an art than a science. There are no exact formulas and there is more than one way to do it effectively, so there are many ways of measuring it also. You can use traditional balance sheet financial analysis, or isolate some factors such as profit per job, response to a mailing, value of contracts in backlog, monthly hits on your web site, or whatever. The only rules are to be consistent over time, and be sure your marketing team knows the criteria you are using for measurement. Your people cannot hit a target unless they know what it is.

18. Revise The Plan _ Markets are inherently unstable. Just about the time you think you have it figured out, things change. In fact, they are changing all the time because many others want a piece of your pie and customers want continual improvements. There are no laws that assure electrical/mechanical contractors they will always be the only way of getting products and power to market. You must earn your position every day.

Your role in marketing of power and products is being tested continually, so you must be prepared to adjust your plan to meet changing times. Also, new information about marketing methods, equipment, and their applications may stimulate new ideas for change. Marketing is a continually evolving profession, like many others. The steps above may remain fairly constant, but the task of adjusting them to circumstances is never finished.

19. Enjoy an Integrated Life _ It is easy to become a workaholic and lose the benefits of a balanced life, because marketing is an exciting aspect of business. But life is more than work. Life can be seen in four quadrants of living: occupational, social, family, and private. Often, what is happening in one quadrant affects another. To these quadrants we each bring four elements of being human in our own unique way. These are: physical, emotional, intellectual, and spiritual. When you balance the four elements against the four quadrants you get a 4x4 lifestyle, with each intersection demanding its attention.

Integrating these 16 different aspects of life can be daunting at times, specially if we stumble along from crisis to crisis. Perhaps the "Serenity Prayer" can be helpful in sorting out the priorities _ *God grant me the serenity to accept the things I cannot change, the courage to improve the things I can, and the wisdom to know the difference.* Jungian psychology as expressed in the Myers-Briggs Type Indicator (MBTI) can help you to use your natural human resources in a balanced way that is appropriate to the situation. (MBTI is a registered trade mark of Consulting Psychologists Press, Inc.) *See the appendix for more details.*

20. Patience and Persistence Pays _ Recall that it takes years and hundreds of classroom hours to make a journeyman out of a new apprentice. So, the development of these marketing tasks and a company culture to carry them out also will involve an investment in time and money to make them profitable. Whether you make the effort or not depends on how you presently imagine the benefits and burdens will turn out.

Many contractors have found the benefits of **IntegratedMarketing[tm]** to be well worth the burdens. But trying to get instant results from long term efforts can be very frustrating if there is no instant payoff. Remember, "Rome was not built in a day."

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Human Resources in Marketing

Markets for design and construction services are composed of critical masses of buyers and sellers. However, these groups are composed of individual people. The marketing process comes down to one_on_one relationships between two people who decide to do business together. Buyers and sellers make decisions according to their personality preferences. So, it is useful to understand human personality in order to improve marketing skills. In fact, this knowledge may be the most important of all in closing sales and keeping customers satisfied.

A good understanding of people can be explained by looking at a model of human personality originally developed by Swiss psychiatrist, Dr. Carl Gustav Jung (1875_1961). The theoretical work of Dr. Jung was expanded and converted into a practical tool for personality assessment and analysis by Katheryn Briggs and her daughter, Isabel Briggs Myers. Together, they created the Myers_Briggs Type Indicator (MBTI) *(Note: MBTI is a registered trade mark of Consulting Psychologists Press Inc., Palo Alto, CA.)* It is a questionnaire (not a test) used for depicting Jung's theory of personality that he first presented in 1925.

After many years of development and research, the MBTI was adopted by the Consulting Psychologists Press, Inc. (CPP) in 1975. Now, it is the most popular instrument of its kind. The MBTI has been translated into 18 foreign languages and is used more than 3 million times annually in the U.S. Thousands of professional users apply it to management team building, career counseling, family and couples therapy, and spiritual life. They are organized into the Association for Psychological Type, headquartered in Kansas City, MO with local chapters throughout the country. In addition to applications in career counseling, team building, and family relations, the MBTI provides a very elegant explanation for human behavior in sales transactions. The MBTI model of personality relies in four scales. Each one is described below. Please read the following explanation carefully to see how it impacts marketing management.

MBTI MODEL OF PERSONALITY

(E) Extravert___|____ Introvert (I) Orientation to World/Source of Energy

(S) Sensing____|____Intuition (N) Perceiving: Way of Taking in Information

(T) Thinking___|____ Feeling (F) Judging: Decision Making

(J) Judging____|___Perceiving (P) What The Outside World Sees: Life Style

Dr. Jung observed that people normally use sensing (S) to establish facts and details about current reality. They use intuition (N) to predict the future implications and see the bigger picture. They use thinking (T) to apply logic and reasoning to make decisions. They use feeling (F) to connect with their own values and those of others involved in judgment. These four functions are used by every normal person. They are expressed either externally or internally according to the preferred orientation to the world. The extravert (E) prefers to use the most preferred and best developed of these functions in the outer world of people, activities, and objects. The introvert (I) prefers the inner world of ideas, concepts, and theories. People with (J) project their preferred form of judgment (whether thinking or feeling) to others, and people who prefer (P) project their preferred form of perception (whether sensing or intuition) to the outer world.

With two options on four scales, there is the possibility of classifying people into 16 different MBTI personality types. Some people object to putting themselves into specific boxes. Although everyone is a unique human being, it is very useful to base analysis of human behavior on these sixteen types. They also provide for a common vocabulary that is very useful in discussing sales transactions and all sorts of interactions between people.

Personality Type in Selling -

Sales negotiating applications of the MBTI have been developed by Dr. Susan Brock ("Type In Selling," 1993). She explains type preferences as follows:

Extraverts are energized by the external world of people and things, when trying things out and interacting with others. Introverts are energized by their internal world of reflection and contemplation, when taking in information or ideas and by quiet time spent alone. People who prefer sensing pay attention to practical facts, details, realities, and past and present. People who prefer intuition pay attention to their insights, patterns or ideas, possibilities, and what could be in the future. People who prefer thinking base their decisions on nonpersonal logic (if this, then that), objective information, and a perceived outcome that makes sense. People who prefer feelings base their decisions on values that center on people, information that includes the impact on people, and a harmonious outcome that feels right. Judging people prefer a lifestyle that is organized, planned, and oriented toward goals and results. Perceptive people prefer a lifestyle that is flexible, spontaneous, and oriented toward gathering information.

In her research on how people of various types interact in some sales negotiations, Dr. Brock found that combinations of the two middle function scales were most important to closing sales. Her analysis resulted in the conclusion that people with S/T preference wanted the facts and details, people with S/F preference wanted personalized service, people with N/T preference wanted logical options, and people with N/F preference enjoyed their vision.

Having this information about MBTI personality type will enable you to make the effort to communicate sales information in all four distinct ways to reach all types, thereby losing fewer customers. Therefore, it is wise to include some of the requirements of each type preference in your sales communications to be sure you include all preferences. Obviously, you cannot determine the types of all your customers, but you can factor all four communication styles into your collateral materials and sales presentations. This is easy to do since it only requires providing four types of information:

1) the facts for S/T,
2) personalized service for S/F,
3) logical options for N/T, and
4) a global vision for N/F.

Your own type preference will dictate how comfortable and natural you feel with the different communications requirements above. If your type preference is S/T, you may feel most comfortable when communicating the facts and details, but uncomfortable with long term global N/F vision. Similarly, your preferred S/T approach to facts and details may not be ideal when presenting to a person with S/F preference who wants personal service. Conversely, if you are an N/T person and prefer to emphasize logical options, you may lose an S/T customer who wants the facts and details. Perhaps you can see how other combination mismatches can occur.

Tables containing the type preferences of occupational groups have been compiled by the Center for Applications of Type (CAPT). A table of architects shows a predominance of I/N types, while a table of electrical apprentices compiled by the Electrical Contracting Foundation shows a higher concentration of S/T types. This difference may help to explain difficulties in communications between these two groups. Electricians are expected to work productively in the here and now, completing specific wiring tasks as described in detailed plans and schematics. On the other hand, an architect must look at a bare piece of land, and from the infinite variety of options design a structure that best suits the human purpose for its existence at some future time. It may be assumed that people are likely to feel most comfortable associating with people of type preference similar to their own. That helps to explain why people of similar types are found to cluster in common occupations.

Research by Dr. Brock has established that sales people can improve sales results if they can be flexible enough in their sales dialogues to appeal to a wider variety of types. This skill can be learned, and with some sensitivity to the reactions of prospects, sales communications can be customized to meet their individual preferences. When prospects feel like you are on their side of the table, they are much more likely to grant you trust, like, and money.

From the descriptions of type preferences given, you may be able to assume your own preferred four-letter type. However, the best way to be sure is to find a qualified person who can administer the MBTI and give you a professional analysis of your preferred type. Also, you can find a very educational self-study Internet web site at www.keirsey.com. Some readers may feel uncomfortable about learning this much about themselves. There is nothing to fear. With a personal understanding of yourself, you will be able to invest in developing the less preferred functions as needed for more successful selling. If you learn to use this model of human behavior, it could be very helpful in all

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your relationships, including family and social groups, as well as occupations.

IntegratedMarketing[tm] - Job Descriptions

Marketing Director - This is the job of researching new business opportunities, choosing growth market segments, recommending overall marketing strategy, planning marketing operations, establishing and controlling marketing budgets, negotiating/pricing sales contracts, communicating with company project managers, supervising direct marketing team members, conducting liaison with industry trade allies and public press, and follow up measurement of results. It is difficult to delegate this job to someone outside the core management team, so this responsibility often is assumed by a company officer. For many small electrical/ mechanical contractors, it is an integral part of their executive responsibility. However, some larger companies have successfully employed a professional manager of marketing. Key to success of such an appointment from outside is willingness of the company owners to make the individual a real management team member with equal status.

Marketing Coordinator - This is an office administrative job that includes assisting the marketing director, tracking the marketing budget, documenting customers and sales trends, maintaining a prospect data base, producing proposals/ estimates, maintaining marketing files and records of correspondence, and overall job progress. It helps if this person is computer literate and is given authority to maintain calendars and schedules for all marketing activities. This person also may conduct research into prospect lists and satisfaction of existing customers.

Marketing Communicator - This person designs, writes, and produces multimedia sales collateral materials to help create discontent and establish preference for your company among buying decision makers. Items can include job record sheets, brochures, company reports, newsletters, proposals, videos, trade show displays, presentations, news releases, and related public relations materials, and specialty advertising. Although many of these items can be contracted out to specialty firms, someone in the company must assume responsibility for their successful completion within the budget. If it is done in house, the position requires someone highly skilled in computerized graphics, or willing to learn.

Business Development Rep - Nothing happens until somebody sells something, and the somebody is the business development rep. This is the sales function of developing prospects by responding to leads for new projects, maintaining person to person contact with customers, coordinating proposals and estimates, making live presentations, closing sales through negotiations, and generally coordinating field workers who must deliver customer satisfaction through performance, behavior, and appearance. This person reviews job progress with customers and assures customer happiness and delight that will provide referrals and unsolicited calls back for more work. It may have other titles, such as customer service rep, or even contract administrator, in order to avoid any negative attitudes toward selling or being a salesman.

Estimator - A technical job requiring the acquisition of plans and specifications, compiling all materials and cost estimates, estimating labor hours to complete a quality installation and field services in accordance with applicable codes, consolidating project cost estimates for proposal pricing, and liaison with field managers to schedule the overall project in coordination with other trades to meet the completion date.

Estimators sometimes also serve as project managers, assuring the timely integration of field workers, materials, and equipment on the job site. They must be eager to keep up with the latest in computerized estimating and job/tracking technology. In smaller companies, some of the other marketing functions are performed by estimators.

BARRIERS TO RESPONSE

Several strategies have been identified and validated for contractors to pursue that participants in this project recommended. Further, a comprehensive education program suitable for field presentation was validated to help contractors understand and implement their marketing options. However, unless they feel a compelling need to focus more marketing resources on developing their place in the new energy services industry, they may not be highly motivated to give these matters a high enough priority to assure their profitable participation in the emerging business opportunities. This is especially true if they are busy and fairly satisfied with current situations. Contractors will either become allied with the new energy services business or will remain non-allied.

Without feeling a compelling need, contractors are vulnerable to being blind-sided by unregulated utility ESCO competition, not realizing the full potential impact in time to take competitive action. Several issues surfaced during the several industry meetings and the pilot projects that pose barriers to a pro-active contractor response. They must be recognized and mitigated to reduce their potential for inhibiting a successful response by contractors.

Making Time -
The Primary Priority

Throughout this project, dialogues with contractors often ended with the complaint that many managers do not have time in their busy lives to plan and conduct the strategies being recommended. The problem of time management is real and must be dealt with by all family owned business managers. They are caught in a paradox. The close, but time consuming, customer relations that connect small firms with loyal customers is offset with the lack of time for long range planning. That is possibly a strong reason why many small firms stay small and why larger firms with more available management time get bigger. This problem may be approached with better delegation skills that will give top manager more time for strategic planning.

At some point in growth the company manager must begin to delegate more crucial decisions to his middle managers, something that many small company owners are reluctant to do. Consequently, many contractors seem to plateau below a ceiling of 20 or so workers. The demographic distribution of the industry seems to validate this assumption, with nearly 90 percent of the firms having less than 20 employees. Such small firms cannot implement the technologies and marketing programs that larger firms conduct normally. Consequently, there is a critical need for more professional organizing and delegation skills that is dangerously close to a crisis in the industry. In short, too many contractors are content with owning firms small enough for one manager to control.

Possibly, the greatest management development service that electrical contracting associations could provide is training in management skills that emphasize the principles and practices of executive delegation that will retain personal service through revenue growth. Typical role models might be the success stories of retail giants like Starbucks, Nordstroms, Wal-Mart and Home Depot. Without this skill contractors will be vulnerable to professional executives of unregulated utility affiliates who understand and practice the functions of delegation. It is only through effective delegation of daily management that company owners can make the necessary time for more long range planning. Effective delegation may be the primary management development priority of electrical contractors and, it may be considered a training opportunity for industry associations.

Insufficient Resources

Competition among electrical contractors is severe, and has resulted in a compression of margins and profits. According to financial analysis by NECA, the average contractors' overhead averages less than 15% and profits less than 3%. With these low margins, and competitive pressure to reduce them even further, many contractors cannot afford professional staff for marketing nor the expense of research and education needed to prepare their companies to perform effectively in the new energy services business. Representation with state governments is expensive, as it often requires legal assistance from professional lobbyists. These limitations are real and impact some contractors severely.

Although the contracting business is quite competitive, the variations in business dealings are not wide. Estimating standards, apprentice training, and job management have been developed over many years, and have changed only gradually over long time periods. "The problem," wrote James F. Moore, "is that there are so many similar competitors in a market that none can make a reasonable profit. Long-distance telephone companies, deregulated electric utilities [and electrical contractors] all face this dilemma. While intense price competition is good for consumers in the short run, razor thin margins make it difficult for companies to justify investing in the next generation, and can stifle innovation. -- the goal is not to become an industry leader, but to be a destroyer of old industries and a creator of new ones." (2)

Geographic Concentration

Although there are notable exceptions, the electrical contracting industry conducts largely a localized business bounded either by local union jurisdictions or the limits of commuting distance from home to job site. Labor agreements often limit the amount of portability employers can use to move qualified crews beyond local union jurisdictions. The new energy services business

being driven by utility deregulation is a national marketplace with no geographic boundaries. In order to cover the market for regional and national accounts, it is necessary to aggregate many local units into a network of contractors that appears to be seamless to customer headquarters. The unregulated utility affiliates are much better equipped to do this aggregation than are individual contractors.

The closest rival to national utility brand names among contractors is the organization of contractors into so-called roll-up companies and funded with public stock offerings. The local contractors who are most attractive to national roll-ups are the bigger firms with some depth of management to assure continuous growth through management succession. Contractors that are not allied with a utility affiliate or a national roll-up may feel overwhelmed by the highly funded potential onslaught of the national brand name companies.

Inadequate Marketing Skills

Some electrical contractors have not developed a sales oriented management style simply because it has not been necessary. The demand for their services has been expanding at 6% annually, and most contractors have been contented with the business they developed through loyal customers and requests and referrals. Additionally, much of the work is based on competitive bidding that has reduced margins and profits so low there is hardly any overhead dollars available for marketing communications. In competitive bidding awards, there is little room for creating a preferred advantage through personal selling.

Unregulated utility affiliates that must compete with each other for the sales of a commodity like electricity must be more aggressive marketers and sales people. They must differentiate their firms from competitors with new value-added products and services, as well as their marketing communications. They accept marketing and sales as routine functions of management, and they have the funds to staff the appropriate activities, including modern E-Commerce and marketing on the Internet.

Additionally, decisions about energy performance contracts often are made at higher executive levels than contractors usually contact. They may feel reluctant or inadequate to convince senior energy engineers or financial executives to deal with them. Closing the sale to these executives for energy services contracts may require more formalized presentations and proposals than contractors who are used to detailed estimating for facility managers are comfortable preparing.

Comfort Level

As was shown in the ranking of strategic options, opinions of contractors surveyed in this study indicate many are not comfortable with some of the optional strategies, i.e. they do not rate some of them as highly valuable. Recall these recommendations were first obtained through surveys of customer groups, and therefore they represent energy services marketing opportunities. However, they may require that some contractors adopt changes in their current ways of conducting business in order to participate in the emerging energy services market. If they feel uncomfortable in making the changes, their chances of participating in these new opportunities may be diminished. In addition to representing them in federal and state legislation, it might be appropriate for their associations to explore ways of helping them overcome their fears and anger and accept the need for change so they may achieve the benefits that are possible.

NOTES

1. Portions of this report were included in an article prepared for the Main Policy Review, coauthored by Lewis Tagliaferre and Susan F. Greenwood.

2. Source: Moore, james F., "The Death of Competition", Harper Business, 1997.

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