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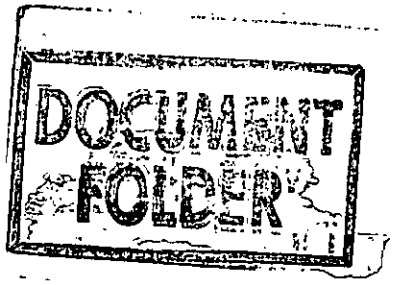
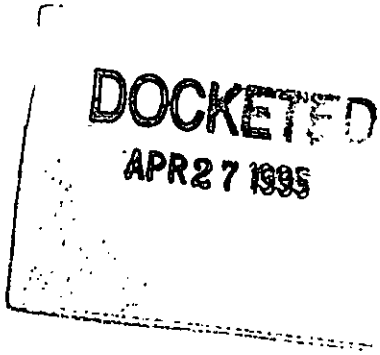


COMMONWEALTH OF PENNSYLVANIA
BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION, et al.	:	
vs.	:	Docket No. R-00943271
PENNSYLVANIA POWER & LIGHT COMPANY	:	

SUPPLEMENTAL TESTIMONY OF DANIEL C. WITMER
President of The Lancaster Chamber of Commerce and Industry

RE: PROPOSED INCREASE IN BASE RATES BY
PENNSYLVANIA POWER & LIGHT COMPANY



Since my previous written and oral testimony, The Lancaster Chamber of Commerce and Industry (the Chamber) has conducted a second survey among its members to determine the classifications of its members with respect to PP&L's service and to solicit additional comments on the proposed rate increase. Attached hereto as Exhibits A and B respectively are a copy of the survey questionnaire and a compilation of the responses to date. The questionnaire was sent out recently to approximately 280 members and, to date, 50 have responded. The Chamber would like to reserve the right to send in additional responses when they are received.

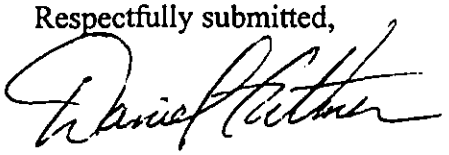
Attached as Exhibit C is a copy of an article from "Issues," a publication by the University of Pittsburgh Institute of Politics, dealing with jobs in Pennsylvania. I direct your attention particularly to pages 3, 5, and 31, which point out the importance that utility costs play in an industry's decision to relocate.

Finally, attached as Exhibit D is a copy of the Utility Section of the August, 1994, edition of "Site Selection."

All of the attached material reinforces my previous testimony that the cost of public utilities play a major role in the decisions of commercial enterprises and industries regarding location and expansion.

On behalf of The Lancaster Chamber of Commerce and Industry, I again urge that the Commission take the significant adverse impact of this proposed rate increase into consideration when making its decision.

Respectfully submitted,



Daniel C. Witmer
President, The Lancaster Chamber of
Commerce and Industry

Memorandum

To: Manufacturers

From: Daniel C. Witmer

Date: April 4, 1995

Re: PP&L Rate Increase

Our testimony on Friday, March 31, 1995 to the PUC was quite well received. We emphasized that we must do everything possible to improve our area's business climate. We pointed out that the proposed electric increase, especially when added to other business climate issues, would place our business community in a position where they would be less likely to invest capital and expand job opportunities in Lancaster County. Your information to us was quite helpful in taking this position.

In fact, our testimony was so well received that we have been invited to give additional testimony at a technical hearing sometime around April 25, 1995. We need some additional information. Please FAX the following information by April 13, 1995, to Betty Rose, 293-3159.

Check One

1. What is your rate schedule?

_____ LP5 - 69,000 volts or higher

_____ LP4 - 12,470 volts or higher

_____ GS3 - large general service at secondary voltage

_____ GS1 - Small general service at secondary voltage

_____ Other or not known

Check One

2. How would you describe PP&L's delivery and quality of service?

Poor_____ Fair_____ Good_____ Very Good_____ Excellent_____

3. Any comments about PP&L's service or proposed rate increase?

_____

_____

_____

Note: We will soon be sending you an executive summary of the testimony we gave on your behalf.

dcw\pp&ltest.44

Rate Schedule	Delivery & Quality of Service	Comments
GS-3	Very Good	
GS-3 & GS-1	Good	
GS-3	Very Good	The increase request is much too large. To need one of such proportion would indicate how management over the recent years or is it the old ploy - ask for an astronomical raise and get beaten down to a figure we wouldn't expect to be acceptable.
GS-3	Very Good	under our re-modernization program, we will be looking at alternate methods of energy.
GH-1	Very Good	under our re-modernization program, we will be looking at alternate methods of energy.
Not Known	Fair	It's a rate increase that I can <u>not</u> pass on to my customer.
GS-1	Good	Rate increases are never welcome.
LP-4	Fair	There seems to be a high number of power outages in the Leola area. When outages occur a special number of industrial customers to contact should be available.
GS-3	Very Good	
GS-3	Poor	Power outages in the East Petersburg area have been very disruptive, not to mention costly, due to lost production time.

Rate Schedule	Delivery & Quality of Service	Comments
GS-1	Very Good	Opposed to rate increase
GS-1	Good	
GS-3	Good	We are in a very competitive market, therefore, we would have no choice but to absorb these costs.
GS-3	Very Good	Proposed increase entirely too large.
GS-3	Very Good	PP&L's service is very good, but a rete increase would significantly impact our business as well as many others.
GS-3	Very Good	
Not Known	Excellent	We need PP&L - If they didn't receive a raise for 10 years they deserve some. We need good service and it won't hurt us very much.
LP-5	Very Good	Service is good, rate increase will affect our cost of doing busines in PA making us less competative with other plants and companies.
GS-3	Very Good	
GS-3	Very Good	
LP-4 & LP-4I	Good	We realize they need an increase but what they proposed seems out of line with reality.
GS-3	Very Good	
LP-4	Fair	Rates are too high at present level.

Rate Schedule	Delivery & Quality of Service	Comments
.P-4	Good	
GS-3	Good	
GS-1 10 bldgs GS-2 12 bldgs GH-1 1 bldg GH-2 1 bldg	Excellent	
GS-3	Very Good	The proposed increase is outrageous and will cause us to relook at our pricing structure. In order to create jobs in our industry in Lancaster County, we must look for ways of cost containment.
GS-3	Very Good	PP&L was very accomodating when we moved to a new location. They have helped us with problems in the past.
GS-3	Very Good	
GS-3	Very Good	
.P-4	Good	
.P-4	Good	
Not Known	Fair	Why should PP&L raise rates? Profits down? So what, whose profits are not down, work smarter!
.P-4	Very Good	
GS-3	Very Good	

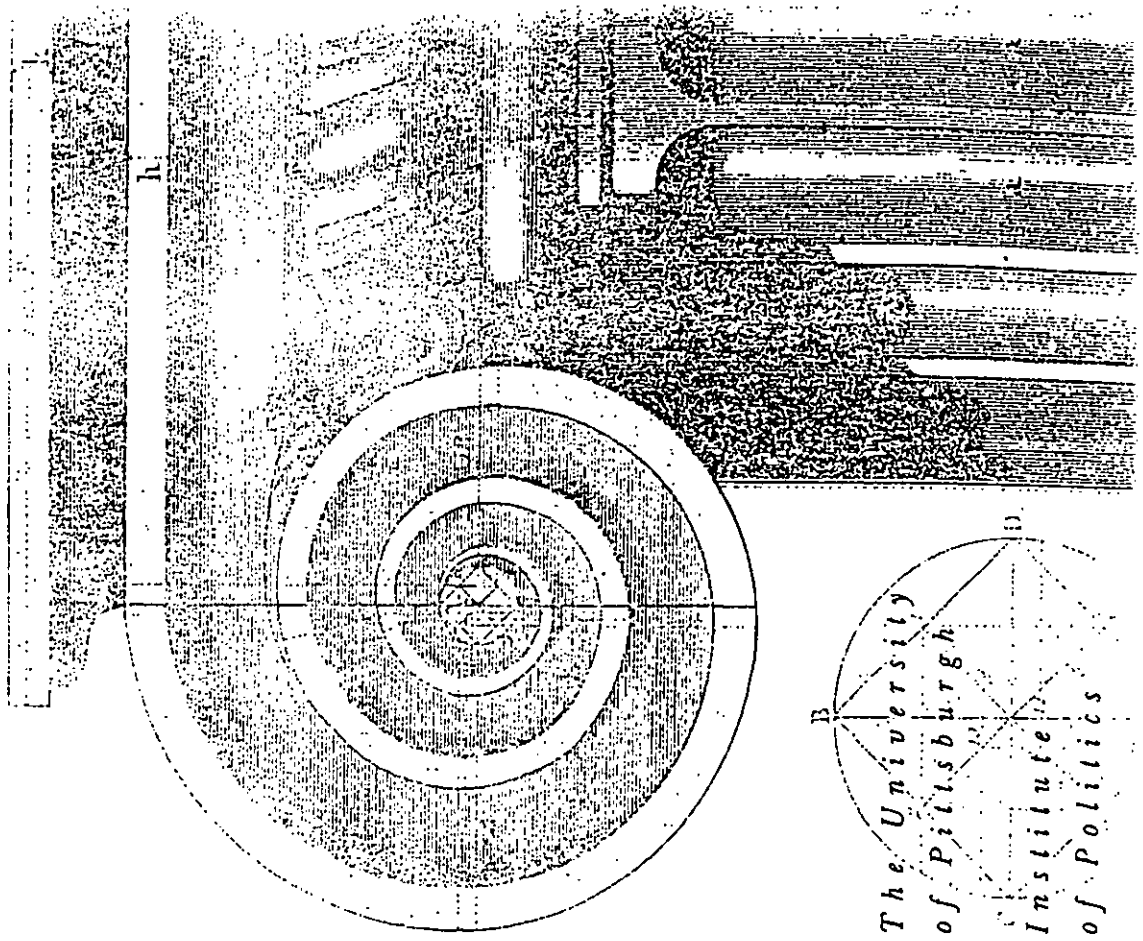
LP-4	Good	
Not Known	Fair	Why should PP&L raise rates? Profits down? So what, whose profits are not down, work smarter!
LP-4	Very Good	
GS-3	Very Good	
Rate Schedule	Delivery & Quality of Service	Comments
GS-3	Good	The proposed increase would decrease our after tax profits by 30%. Our competition would have a 25-30% advantage due to increase. Current advantage is 2-10%.
GS-1	Good	
LP-4	Very Good	
GS-3	Fair	Response/service from C. Nguyen, Marketing Engineer has been excellent. Other contacts unfortunately much less in quality.
GS-3	Good	
GS-3	Good	
GS-3	Very Good	
GS-3	Excellent	

LP-5 & LP-4	Fair	We see others around the county who are better in service. We do not consider their rate increase as being justified or fair.
LP-5, LP-4, GS-3 & GS-1	Very Good	In the water business we need electricity to run our pumps. Without electricity we would all be out of water.
LP-5	Fair	PP&L's service is average, but now they want to charge premium prices
GS-3	Excellent	
LP-4	Very Good	
LP-4 & GS-3	Very Good	
GS-3	Very Good	
GS-3	Very Good	The service appears to be very good as noted above. If a rate adjustment is needed, it certainly should not be as high as they have requested.

I S S U E S

GETTING THE 'JOBS' DONE

Clarke M. Thomas



University of Pittsburgh

Institute of Politics
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Getting the 'Jobs' Done

Clarke M. Thomas

"Jobs!"

That's the answer you'll get from government officials up and down the line when you ask them to name the greatest pressure on them nowadays.

"Jobs!"

And they don't so much mean jobs in the old patronage sense. What they mean is the creation of new jobs, whether by attracting new industries or business or through government outlays.

State Rep. Tom Michlovic of North Braddock, representing a Monongahela Valley district, said, "I spend 40 to 50 percent of my time on economic development." To varying degrees, that is true of officials from the Statehouse down through the borough and township level.

Particularly in an era of declining manufacturing and of large pockets of unemployment, citizens expect economic-development action, including from their local and county officials. It is the name of the game nowadays, a gauge by which officials often stand or fall at the next election. So what can a local official do? Here are some elements of practical advice gleaned from dozens of interviews, with specific tips later in this issues paper:

1. There may be little you can do by yourself. Learn what you can do and what you can't do.

2. Your best bet is to work with others through larger entities, such as regional development groups with their more sophisticated experience.

3. Learn what help is available from the county and the state, as well as from private and public economic-development agencies. One suggestion: The Ben Franklin Technology Center in Pittsburgh has published a *Business Resource Directory*, subtitled "A Practical Guide to Financing and Business Development Services in Southwestern Pennsylvania," with 171 pages of listing, running alphabetically from "Accounting Assistance Programs" to "Westmoreland Economic Development Corporation."

4. Realize that you will need to work with different levels of government on particular issues. For example, the county in many localities for community colleges and some elements of transportation, such as mass transit; the state for major highways and other transportation connections, for state taxes and environmental concerns; and the federal government on trade issues. Some major issues, such as bringing the Software Engineering Institute to Pittsburgh, required cooperation at all levels of government, plus that of Pittsburgh's higher educational institutions.

5. For all the talk about business and taxes, levies may be the least important — or at least the last — item for consid-

eration on a corporation's list.

6.Therefore, don't lay out tax concessions the first thing as bait. As in poker, save them as your "hole card" for the end of the game. Besides, location-seeking corporations know that game far better than you do. That's yet another reason for following the advice in Item 2 above.

7.Keep in touch with local businesses and labor to learn what they want, the better to build local coalitions to improve the climate for both keeping and attracting business and industry.

8.Your local schools are highly important, too. After all, these are the entities that a wise incoming business or industry will certainly check with, especially in terms of job training. Are you certain they are on your side in the jobs-creation endeavor?

9.Finally, be sure about the kind of jobs you want to attract. Some municipalities have had heart-rending experiences with the costs of providing infrastructure for incoming industries; or with the environmental problems the newcomers have created; or with the fact that the new arrivals have brought their workers with them, rather than hiring local citizens; or with jeans factories or shopping malls that took advantage of concessions and then departed or closed down not too many years later.

There are larger philosophical concerns, too, in the job-creation realm. A big one: Does everyone need to go to college?

Bear in mind that despite all the hoopla about college degrees, only about 30 percent of America's jobs require a college degree. In terms of wisely using human and financial resources, societal attitudes on this factor need to be changed. (See "Making Training A Priority" later in this issues paper.)

And what about industrial parks, superhighways, and the fragmentation of local government so frequent in Pennsylvania (130 municipalities in Allegheny County alone)?

With all these caveats, you, the local official, still want more jobs in your municipality. Right? So let's elaborate on all these considerations and more.

We start with what every marketer must know: What does the customer want? For instance, consider the "customer" as an industry or business looking for a new location.

What Industry Wants

The stock saying in real estate circles is that the three important considerations are: "Location, location, location."

Location in relation to markets and to suppliers is fundamental. But seldom is there one supremely obvious location. Too many variables come into play.

Listen to Robert Ady, president of P.H.H. Fantus of Chicago, the largest business consulting firm in the world. "A site selection process first of all is one of elimination. Whether you are talking about a worldwide, a Pennsylvania-wide, or a local search, you eliminate those with the greatest disadvantages and the fewest advantages. Frankly, if Pittsburgh is on a list of prospects and we go there, it is with the hope of rejecting it — to make the ultimate selection process easier."

Location factors are related to cost, Ady said, depending upon the company and the product. But there are five basic operating costs at stake — labor, transportation, utility, occupancy, and taxes. Ady gives a rough breakdown of the weight given, as follows:

For manufacturers, the cost of labor, 40 percent; transportation, 30 percent; utilities, 15 percent; occupancy, 10 percent; and taxes, 5 percent.

For office firms, the cost of labor, 72 percent; transportation, 0; occupancy, 15 percent; utilities, 10 percent; and taxes 3 percent.

Ady said that, aside from these operating condition factors, business and industry look at quality-of-life factors — education, recreation, housing costs.

Highly important, the Fantus official said, is the availability of a trained or trainable work force, including the assumption of responsibility for providing that component. "It's a big problem these days; no one wants to do it," Ady said. "They want to wait and see what jobs will be there before undertaking training.

"Sure, it's a chicken and egg situation. But what I'm saying is that it is much more convincing to say, 'We have people trained already.' You can always fine tune them when the plant locates in your community," Ady explained.

Ady said that a major problem is that with so much emphasis on college education, the greatest shortage is in the vocationally and technically trained student. So, on the one hand, in the coming years, "There won't be any unskilled jobs anymore. You can't even get into the door to talk to someone." On the other hand, "You are going to see people with master's degrees working in high-tech factories as technicians, not management."

A 1990 KPMG Peat Marwick study of foreign investors found the priority list for European firms of state — location factors to run as follows: 1) proximity to key industry/suppliers; 2) air transportation; 3) personal preference/executive in place; 4) acquisition/joint ven-

ture opportunity; 5) living conditions/climate; 6) distribution advantages; 7) quality and cost of labor.

When it came to local issues of concern, the order went like this: 1) labor quality; 2) labor availability; 3) education of employees; 4) state and local tax system.

The Peat Marwick questions on personal issues of concern to European companies came up with this priority list: 1) education of family members; 2) insurance; 3) cost of housing.

What about tax incentives and other subsidies?

Ady said they have become too important, in the sense that "they tend to interfere with the basic economics of finding the optimum location." But the truth too often is that "when it comes down to the final choice, it depends on who gives you the most."

The category includes tax abatements, cash grants, low-cost financing, reduced mortgage rates, relocation assistance, infrastructure improvements such as a highway into the property, spousal opportunities, and day care.

Interestingly, the Peat Marwick study of state concerns for foreign investors ranked taxes as 12th. (For further discussion, see "How Important Are Taxes?" later in this issues paper.)

What Should a Community Do?

Suppose a prospect is coming to town? What should the community do? Fantus President Robert Ady has these suggestions:

- Have the political leadership available to meet with the prospect. If the prospect is sizeable, "the most important salesman in the state is the governor."

  (I was surprised in a visit with a corporate leader in Southwestern Pennsylvania to have him say that the plant-location executive in his firm had NEVER been contacted by any official in his municipality or county about locating a plant locally. Talk about missed opportunities!)

  Sometimes, of course, the prospective industry doesn't want to meet with the politicos, "looking on them as just good ol' boys." Accede accordingly.
- Be ready with your answers to all conceivable questions, such as the water rates and zoning requirements. Be sure all the prospect's questions are answered. "If you don't know the answer, say 'We'll get it for you.' If you try to bluff it out, the prospect will think you are lying," Ady said.

How about wining and dining?

A dinner can help establish the community's desire to have the industry locate there. But the problem is that staging a dinner takes away from the prospect's time to see the community and to ask questions — especially pertinent if the prospect only plans to spend a couple of hours there. "The goal shouldn't be to sit in a restaurant but to get around the town for a firsthand look," Ady explained.

The Fantus president has this bit of chastening advice for local officials. "The move these days is to regional economic development. There's not time for dealing with the individual municipality. There's no way a big prospect is going to come in and deal with supervisors."

Which brings us to a look at industrial and plant siting from the local viewpoint.

The major regional development agency in Southwestern Pennsylvania is Penn's Southwest, launched in 1974 by the Allegheny Conference on Community Development, the spearhead for Pittsburgh's corporate leadership. Jay Aldridge has been its president from the start, involved in helping bring into the area hundreds of firms — American, European (especially German), and Japanese.

His advice to local communities is to determine: (1) what you have to sell; (2) whom to sell it to; and (3) how to sell it.

For example, what is the nature of your work force? Do you have a high percentage of unskilled workers? Do you have systems for training them? Do you have workers with idled skills (such as former steel plant workers)? Or is your potential strength for certain industries what are called "phantom workers," people who want part-time work, such as homemakers whose children are ready for college?

For a man whose interest presumably would be real estate, Aldridge spends a lot of time talking about manpower and training. He estimates that 25 percent of the work force in this country is not ready for meaningful jobs. For example, 37 percent of black young adults are not in school or in the military or otherwise preparing themselves for productive jobs. The similar figure for white young adults is 23 percent, demonstrating it is not solely a matter of race.

The figures are especially daunting, Aldridge said, considering the demographic trends ahead that will mean a labor shortage in this country — particularly for skilled workers. (For more discussion on this topic, see "Making Training A Priority.")

Besides manpower, a plant-seeking community also needs to know exactly where it stands on such utilities as electricity, water, gas, sewage, and — Aldridge

emphasizes — "the increasingly important matter of waste removal and disposal."

After inventorying No. 1, your best chances of answering questions 2 and 3 are to work with regional groupings, as well as state agencies (see "Where To Get Help"). That can include local or county urban redevelopment authorities, industrial development corporations, or associations such as the Mon Valley Progress Council.

That's because such matters of concern to manufacturers as transportation, human services (more than just labor cost), energy, and taxes (state as well as local) often lie beyond the ken of a local municipality.

Aldridge goes to a chalkboard in his office to draw a diagram explaining the ordinary parameters of a relocation search. Suppose a manufacturer's major suppliers are in the Central Time Zone, in Indiana, for instance. But it is finding its major markets to be in the Eastern Time Zone with its 120 million people. The corporation has determined that Greensburg is about as far east as it can settle, in terms of transportation costs from Indiana.

So the challenge is to find a location somewhere between Indiana and Greensburg that is the best pivot between suppliers and markets. It can be in Ohio or Western Pennsylvania — Meadville, for instance, in the particular diagram that Aldridge chose as his example.

"In a sense, the real estate is the easy part. It is all the other tangibles and intangibles that we've been talking about that can make the difference," Aldridge explains.

Another prominent actor in the job-creation scene is the Regional Industrial Development Corporation (RIDC), headquartered in Pittsburgh. Its president, Frank Brooks Robinson, said that industries particularly want trust and confidentiality, a reason that local officials often have to be kept in the dark until a deal is made.

Investors — and particularly corporations from abroad — worry about the property around them. That is a reason for the popularity of suburban campus-like industrial parks. The usual rule, therefore, is three acres of land for every acre of building.

That makes single-site development much harder. Robinson said that RIDC has drawn criticism for not doing more in the cities themselves, but a problem there often is the shortage of land for sizeable tract development.

Because of the pull and tug of demands, local governments try to spread the butter too thin, Robinson said. What they must realize is that a rising tide lifts all boats.

Robinson in this context cites the costly, agonizingly slow process of redeveloping for economic reuse of the former USX steel plants in Duquesne and McKeesport, for which the RIDC is responsible. "We weren't naive when we got into this, but I must say the scope and cost has been a real eye-opener in dealing with everything from old buildings and transformers to asbestos and what I call 'rainbow water.'"

Full reutilization of old industrial sites even after toxic substances are removed or neutralized, Robinson believes, will require legislation capping the liability that worries potential tenants.

Robinson said he would like to make three points with local government officials concerning such remediation projects. One is that those properties won't come to complete fruition while present officials are in office, denying them immediate political gains. "They will have to be content with being proud that they started the process," Robinson said.

Second, officials in other municipalities also will have to be prepared for the long wait and be content with the eventual harvest of jobs for many of their citizens.

Third, as the renovated sites come on line, they may attract industries now in obsolescent housing elsewhere in the Mon Valley or Southwestern Pennsylvania. Robinson said officials must resist the temptation to sending up the battle cry: "Don't you dare move OUR company to McKeesport." To do this, the RIDC chief said, "would be ruling over the wreckage, rather than solving the problem."

Robinson said that some people talk as though for its brightest future this region should turn to high tech and forget manufacturing. But the two aren't incompatible, in Robinson's view. Increasingly, certain kinds of manufacturing will migrate to places that have high technology available. To him, the renovation of the former Westinghouse turbine plant in the Turtle Creek valley into an industrial mall called Keystone Commons is an example for the future.

Another aspect in the job-creation picture is highlighted by David Epperson, dean of the University of Pittsburgh School of Social Work and vice-chairman of the City of Pittsburgh's Urban Redevelopment Authority. Dean Epperson said a problem for the minority community is that the fragmentation of economic development programs makes it hard to play a meaningful role in the entire process.

Epperson contends, "We haven't learned from the positive experiences of the past. For instance, the War on Poverty program launched in the 1960s had all the job development activity under one rubric." Epperson speaks from personal involvement, as he was director of Community Action Pittsburgh, a major anti-poverty program in that era.

The cohesiveness of the approach in those days made it possible for such minority organizations as the Urban League of Pittsburgh to have a place at the table along with local governments and the corporations. That isn't the case nowadays, said Epperson, a former chairman of the Urban League board.

The result is that many errors are made with regard to the minority community. For one, Epperson contends, not enough care has been taken to make sure that the advent of the Midfield Terminal at Greater Pittsburgh International Airport 15 miles from central Pittsburgh helps employment in the minority community, rather than further discouraging it.

Given the prospective labor shortages because of demographics, the total community has a stake in the utilization of the minority population, quite aside from the fairness issue. Economic development efforts need to include minority viewpoints from the very beginning, Epperson contends. The plural word, "viewpoints," is important, as care must be taken never to assume there is any ONE minority viewpoint. More than one base needs to be touched.

Another job-creation idea for local government officials comes from Stanley Lowe, president of the Pittsburgh Community Reinvestment Group, which has been working with lending institutions to make mortgage and commercial business loans in low-income neighborhoods.

He argues that the potential for economic development in those neighborhoods is often overlooked by lending institutions that on a *pro forma* basis redline everyone in them, regardless of individual merit or entrepreneurial record or potential. He said studies by his group had shown there were some neighborhoods in Pittsburgh where not a single commercial or mortgage loan had been made in the past 10 years, despite the volume of deposits from those same areas.

Lowe contends that local government officials should work with banks to overcome these practices. They have both the leverage of their tax deposits, insurance and pension funds, and long-term bonded debt and also of a 1977 federal law requiring lending institutions to have equal lending practices. This doesn't mean they have to lend to any and everyone; the requirement is that they "develop and design products to meet the needs of the community."

Thus, different plans can be developed for different communities, but none can just be ignored, Lowe explained.

Lowe said government officials too often assume that government can do the job in low-income areas when, in truth, the private sector is the answer for the long pull. Also, government officials assume that "equal lending patterns and practices" are a given, when often they aren't, unless lending institutions are sufficiently prompted. He proposes:

"Local government officials should say: 'We want to do business with you if you will do business with our constituents — your customer base, our tax base. We want you to follow the letter of the 1977 law requiring equal lending patterns and practices for all.'"

Quite aside from fairness, such financial input into less-chance neighborhoods is the best way to encourage the development there of private-sector entrepreneurs, necessary to avoid the idea that government largesse is the only hope.

Support for this concept comes from the experience of Integra Bank Pittsburgh, formerly the Union National Bank. In June 1988, the institution became the first and only lending institution in Pittsburgh to sign a formal agreement with the Pittsburgh Community Reinvestment Group concerning lending in low- and moderate-income areas. Within a year, the bank had increased its first-mortgage lending in those neighborhoods by 2,300 percent.

From 1988 through 1991, the bank made more than $29.3 million first-mortgage loans in the designated areas. In its latest memorandum of understanding, it has set a goal of $101.7 million by the end of 1996. Similarly, it has set a goal of $180.7 million in commercial loans to small, minority, female and non-profit organizations by that same date (the 1988-91 record was more than $98.9 million.)

The grand total — in writing — of Integra's goals for all lending in designated neighborhoods is $357,839,260, including first and second mortgages, home improvement loans, and commercial real estate loans to non-profit developers; and commercial loans to small, minority, and female businesses and non-profits.

Gayland Cook, Integra's president, was asked whether this "borrower friendly" attitude had hurt the bank in any way. He replied:

"No. It has allowed us to do business

with more narrowly defined focuses and create an atmosphere of willingness. The key is honestly to determine the ability of the borrower to repay, designing a program that works within their capacity to repay. We've had a very, very low delinquency rate as a result."

Stephanie Cipriani, assistant vice-president and manager of the bank's Community Development Department, suggested one major reason why the record of defaults on mortgages in low-income areas has been "less than minimal." She said, "Because people in a lot of cases had had no hope, when they finally got homes, they're not going to let them go. It means too much to them." The same low delinquency rate is true for commercial loans, Cipriani said.

Although other lending institutions have not signed formal agreements, they too have greatly expanded their business in low-income areas. An official in another bank said that the repayment record in his bank and others initially has been "squeaky clean," but expressed the cautionary note that — except for Integra — the experience time span is too short for a valid analysis.

In some cases now, the various Pittsburgh banks have formed public and private partnerships, including with each other.

Equally significant, the lending institutions now are beginning to compete for this business — thus giving, in Cipriani's words, "a chance for community groups to get the best deal."

Finally, on the question of plant location, it is worthwhile to hear from someone like Allen Wood of Westinghouse, who has participated in choosing sites for 65 Westinghouse facilities around the world. Wood explains:

If a unit of the company wants a new facility, Westinghouse first sets up a committee of corporate executives to make a cost analysis of the proposal before any search is made. The unit will face a 26-page questionnaire and be given two months to respond.

Wood said the four important cost variables are labor, transportation, taxes, and utilities. There is no special order, although Wood said that the latter two are not as major as the others.

Climate too, can be a factor. For instance, Florida and Alabama are poor places for sophisticated computers, Wood said.

If the proposal gets an OK, from 12 to 15 cities are selected. "We then determine the three most economical on the basis of those variables. Then we go to a state or local development agency — NOT the politicians — to help us with further research.

"In most metro areas, there is a Jay Aldridge type of person that you work with," Wood said.

Sometimes it turns out that none of the three final choices is satisfactory. If, for example, central Pennsylvania isn't quite right, Westinghouse will turn to something nearby with similar characteristics, such as Maryland or even northern Virginia.

Wood gave a small smile and said that many companies are not as sophisticated as Westinghouse. Sometimes even after a corporation has conducted a professionally organized search, the chairman of the board will step in and overrule the decision. And no matter what reasons he gives, his compatriots will suspect his selection was a good place to golf or lies near where he plans to retire.

It is noteworthy that the Peat Marwick study showed that many foreign companies were up front on this point — with the personal preference of the appropriate executive ranking No. 3 in the order of importance of state location factors.

That is one of the factors that gives pause to Tom Michlovic, the state representative who said he spends 40 to 50 percent of his time on economic development. "Sometimes you wonder whether all this effort really is worth it. Wouldn't it happen — or not happen — anyway?"

But the good news is that there are numerous resources available. Let's now turn to that topic.

Where to Get Help

For Pennsylvania communities seeking to create jobs there is one saving grace: There is no shortage of resources, both governmental and governmentally funded.

For instance, take the Pennsylvania Department of Commerce. Secretary of Commerce Andrew Greenberg notes that state government makes available each year $200 million in business financing of various kinds — grants, low-interest loans, etc.

The state has provided $30 million for rehabilitating the abandoned USX mill sites at Duquesne and McKeesport for industrial and commercial development. It has put $38 million into the package to Sony to place two factories at the former Volkswagen plant in New Stanton. "No community by itself could have afforded that kind of inducement," Greenberg remarks.

"Most of what we do is to recruit outside companies," Greenberg said. The state will particularly swing into action if an incoming business promises to provide at least 100 jobs.

But the state isn't neglecting holding

onto what it has. Just this year, the Pennsylvania Industrial Development Agency (PIDA) set aside $20 million for job-retention projects — that is, to help keep a corporation in Pennsylvania that might otherwise move its jobs somewhere else.

"This was both economically and politically the right thing to do," Greenberg comments. "Economically, because those businesses will create a big share of the new jobs in our state's economy. Politically, because it's tough being in business right now with the current recession. And this sends a message that we are not just looking for outside business to come in."

In fact, the state government has established a Governor's Response Team that includes officials from many agencies — Commerce, Community Affairs, Education, Environmental Resources, Labor and Industry. The Team's two-fold purpose: (1) to respond to any feelers from firms that might want to locate in Pennsylvania, (2) to act as an early-warning system to capture signals that a corporation might be thinking of leaving the state, in order to work with it and its community to head off that eventuality.

Its "cut-through-the-red-tape" strategy involves designating one person to handle any overture, a case-management system tied to a single individual who will be the answer-getter from every department.

At present, state agencies are eyeing Canada, particularly Ontario, where they detect a dissatisfaction with the business climate. They are shooting for medium-sized firms, those with $10 million to $100 million in sales.

"We did a survey of 4,000 Canadian manufacturers in that range and got 500 responses — a phenomenal rate as anyone in the business can verify," Greenberg said. The Commerce Department and other agencies are following up with mailings, telephoning, and doing-business-in-Pennsylvania seminars.

Another state agency heavily involved in job-creation efforts is the Pennsylvania Department of Community Affairs, with $200 million a year available for that purpose. It focuses its efforts particularly on problem-plagued communities, such as those that have lost plants or those in inner cities.

DCA Secretary Karen Miller said her agency can provide money for infrastructure, housing, planning, and intergovernmental cooperative efforts. It can help with training and technical assistance and what she engagingly calls "hand-holding" with communities and non-profit agencies.

A particular vehicle for help is the enterprise zone concept, in operation since 1983. This is a grant program to assist financially disadvantaged communities in preparing and implementing business development strategies to increase the quantity and quality of job opportunities.

A community entering the program first receives a planning grant for preparing a business development strategy for the proposed enterprise zone area. When that process is successfully completed, a planning zone becomes eligible to compete with other planning zones for designation as an enterprise zone. Zones so designated by Secretary Miller's office receive seed-money grants to stimulate investment and business activity. The zone also is given priority consideration when requesting other state resources.

There now are 43 designated Enterprise Zones, recipients of $43.3 million in grants since 1983. Since 1987, the DCA estimates that more than 9,800 new jobs have been created; more than $500 million in private sector business investment attracted, resulting in approximately 1,500 business expansions and starts.

Miller, former mayor of Reading, said that DCA has made intergovernmental cooperation a top priority because it represents a much wiser user of resources than municipality-by-municipality efforts.

"I'll have to admit that this effort is like turning the Queen Mary around. We still run into turf battles and the attitude that 'this is the way we've always done things.' But we've come far enough that communities now get defensive about why they are NOT doing intergovernmental cooperation," Miller said.

The DCA secretary said, "Unfortunately, in Pennsylvania we don't allow municipalities to die. Therefore, we end up with 'welfare municipalities.'"

Another resource is the Pennsylvania Department of Labor and Industry. L & I Secretary Thomas Foley said, "Labor-management cooperation is a bottom line process. We don't suggest that people work together just because it is a nice thing to do. We encourage it because we believe it goes to the bottom line in terms of productivity and increased ability to compete with competition both inside and outside the country."

Foley said, "You hear a lot of no-union talk and go-to-Mexico talk. But when you want to get something done in a plant, it's better to have a clear organization there to work with to get things done. Any economic development effort that has its labor package together constitutes a better way to go."

The L & I secretary said he could give example after example of where "tool-

box meetings" involving workers and management had brought exchanges of ideas about injuries, lost work days, and the like that had resulted in bringing in projects on time and under budget.

Foley said L & I can help prospective companies with estimates on what workers compensation will cost and put them in touch with companies similar to theirs to obtain advice.

L & I has funds to help corporations with testing and training. One important segment is federal money for vocational rehabilitation, a funding stream that has increased yearly. Foley said this program can be especially helpful for small business. "For instance, we can provide money to train a disabled person to be an accountant for a small firm and even outfit the work site so that that person can do the job."

The Pennsylvania Department of Environmental Resources definitely is part of the job creation equation because of the effects of its permitting, enforcement, emergency, and compliance requirements.

DER Secretary Arthur Davis said that he has instituted three changes to provide better communication on the subject. First, he has appointed a full-time person to provide a link to local governments. He is John Brosius, a former Lehigh County commissioner after being the director of planning, zoning, and development for Whitehall Township in Lehigh County (Tel. 717-783-7005).

Second, each of the six DER regional offices is in the process of designating a liaison person with local governments and the media, similar to the role Brosius has at the state level.

Third, Secretary Davis has instituted periodic dinners in the east wing of the State Capitol building with each of three different groups: (1) local government officials; (2) business and industry leaders; (3) conservation and environmental organizations.

"I'm afraid Pennsylvania has a reputation of having technocrats who were too rigid and wouldn't listen. Some of that was true, some not. But we are making a basic shift on that," Davis said.

As an industrial state, Pennsylvania historically was the site of more air and water pollution than most. That is a major reason why it began imposing stringent laws in some realms.

But Davis won't buy the idea that at this point Pennsylvania's environmental laws are any stricter than in most states. "The difference is that the laws are enforced in Pennsylvania, as against some other states," Davis said. The result is a level playing field for all concerned throughout Pennsylvania.

Many of the laws and regulations worrisome to industry actually are the same anywhere in the country because they are federal.

The DER has problems both up and down the other levels of government. In some cases, Pennsylvania's laws are tougher than the federal, which brings pressure on the state to reduce its "regs" to the lower levels.

But Davis said that that would constitute a step backward for s state struggling to overcome the reality as well as the image of its polluted past. He contends that the quality of life as long-run asset for the state dare not be disregarded. In some cases where an incoming industry insists the rules must be bent, "We may just have to say, 'Sorry, you'll have to go elsewhere.'"

On the other end of the scale Davis is troubled by the continued stand-offs between the state and local governments on such matters vital to the state's industrial future as toxic waste disposal facilities — the NIMBY (not in my backyard) syndrome. There has to be a balance struck between industry and the communities. "In Pennsylvania, we are learning at the state level that we have not been as responsive and sensitive to communities as well as to industry," Davis said.

What advice does Davis have for local officials?

He suggests that as problems arise, the affected official contact the regional DER office first. That's a reason for the new regional liaison officers. "Have your facts straight, be businesslike, persistent, but reasonable. Don't just call up your local legislator; that seldom produces much."

The DER secretary said many localities that think of the DER in adversarial terms don't realize how important it is to have a bulwark against corporations that might run roughshod over them with "Do this or else" demands.

Davis admits it is difficult to know what to do with a community that for financial reasons says it can't, for instance, install an advanced sewage treatment plant to meet federal and state regulations. "That puts us in an immediate adversarial position. Do we complain to the feds? Do we say to the municipality, 'Tough, just boil your water'?"

But Davis insists that whether it's a local government or an industry, there usually are ways to work it out. PENNVEST, the state bond issue to provide aid for municipalities with water and sewer problems, has been a help. "We've worked with more than 160 municipalities with that program," the DER secretary said. The state has issued more

than $800 million in grants and loans under that program, as against an estimated $4 billion in needs.

In sum, Davis said, "We are not going to yield on environmental protection measures. But if proper compromises can be made within that framework that are of benefit to an industry or a locality, we are here to help."

Of the various nonprofit organizations that have been established in Pennsylvania to aid in job creation, none has achieved as much attention elsewhere as the Ben Franklin Partnership program established during the Dick Thornburgh administration. The private, nonprofit program was designed to link Pennsylvania's academic research facilities with business and industry, both in terms of providing advice and of transforming academic discoveries into actual products in the market arena.

At one point there was grumbling that the money mostly seemed to be lodging in the institutions of higher learning rather than going to the technology-transfer end. But that snag appears to have been straightened out.

Lawrence McGeehan, head of the Ben Franklin Technology Center of Western Pennsylvania in Pittsburgh, a regional office, said the emphasis of the $6 million-a-year program is on "working with what we have," leaving the attracting of new industry to others.

Dr. McGeehan said that 80 percent of its funding goes into research and development — by companies, by universities, and by university/business combinations. Another 10 percent goes into training programs and the final 10 percent into supporting business entrepreneurship, with emphasis on new-product development and the international market.

One emphasis these days is to help old-line manufacturers, particularly those that have lost defense business with the end of the Cold War. The Ben Franklin program also is constantly looking for niche production facilities such as sawmills, that, with a boost, can expand Pennsylvania markets.

With the imminent coming to Southwestern Pennsylvania of the Sony manufacturing facilities at New Stanton, McGeehan said that Ben Franklin program hopes to stimulate suppliers. This may require aiding many small firms to upgrade their processes or to change them entirely. For location and businesses interested in becoming a part of the process, the dates for proposals are September 1 and December 1. Information can be obtained from the Ben Franklin Technology Center (412-681-1520).

Another resource is the Technology Development and Education Corporation. TDEC is a nonprofit, independent affiliate of the Pittsburgh High Technology Council, fostering economic growth through programs devoted to manufacturing modernization, development of the region's technology base, work force development, and international trade. Its president is Ray Christman, former state secretary of commerce.

Its activities include:

- Southwestern Pennsylvania Industrial Resource Centers (SPIRC), a $2 million annual operation that so far has worked with 250 manufacturing companies to adopt modern manufacturing practices to improve profitability and competitiveness.

- Pittsburgh Biomedical Development Corporation, providing financial and management assistance to promising research and technology ventures emerging from the region's hospitals and universities.

- Pittsburgh Youth Apprenticeship Program, which as of September 1992 will be developing in four school districts in Allegheny and Westmoreland Counties a work-based learning program drawn from the German apprenticeship system (see "Making Training A Priority").

- Pittsburgh Regional Export Program, providing customized consulting assistance to smaller companies concerning export activities.

The point in all this is that local officials may do as much good as anything for the process of job creation by working with their local corporations to take advantage of the upgrading opportunities offered by such agencies as Ben Franklin, TDEC, and SPIRC.

BEYOND 'JUST ANY OLD JOB'

A discussion of job creation would be amiss if it didn't include a consideration of the caveats.

Frank Giarratani, a University of Pittsburgh economist, worries that many smaller communities "are so desperate that they'll take anything from anywhere," even if there are negative effects in terms of congestion, aesthetics, or the environment. And that often leads to a "beggar thy neighbor" attitude, rather than cooperation with adjacent municipalities.

Ralph Bangs of Pitt's University Center for Social and Urban Research (UCSUR) said the goal should be more

than just creating jobs. "We should want good jobs — above-average wage jobs, at the equivalent of the $23,000-a-year jobs in 1980." The pay should be above average, full-time, in permanent growth industries, Bangs said. "Our goal should NOT be part-time, low wage jobs."

James DeAngelis of UCSUR interjects that this region already is 10 percent below the national wage average. The picture is complicated by the fact that while the population has not grown, labor force participation has, particularly with the addition of women. How to close that gap? Bangs and DeAngelis suggest:

1. A higher level of training. "Concentrate tax dollars on training, rather than on concessions."

2. Work to reduce health costs for firms. Chambers of commerce should form pools to negotiate with local hospitals and doctors on this score.

3. Concentrate on worker-compensation costs "so firms don't see it as a disadvantage here."

4. Nurture local businesses and encourage them to expand.

The two UCSUR academics also said that while the region has done well on short-term projects, such as developing the Greater Pittsburgh International Airport, it is uncertain about the long-range aspects.

The decaying infrastructure is one example, something that can hamper economic growth in the long run. Also, does this region want uniform density, decentralizing through constant road building to the outer regions? What are the chances that mass transit can alleviate the pressure on the road systems?

Elam Herr of the Pennsylvania State Association of Township Supervisors has seen the pitfalls as well as the achievements of economic development. He points to two examples in Lancaster County. In one case many concessions were made to attract to Rapho Township a truck transfer station that brought in 100 jobs. But only 10 of those jobs went to local people. Then the terminal closed down.

In another case, in Lancaster County's Lampeter Township, the Rockville Square shopping center was built near the Lancaster Outlet City, leaving the latter a ghost center. Both pieces of land were zoned commercial, and the township had no way to require a different use. "Municipalities have zoning powers, yes, but no way to say that enough is enough," Herr explained.

A prime example of a shackled municipality has arisen in Allegheny County, where Frazer Township officials balked at a proposal from the Zamias Corporation to build a shopping center, only to have Zamias go to work to carve out a new 275-acre municipality, Frazer Heights. If the move stands up legally, Frazer not only will be denied the tax revenues but inevitably will have to shoulder the burden of extra traffic on its roads, and other costs.

The precedent for fashioning new boroughs for such major developments goes back at least to 1983 when the owners of Seven Springs Mountain Resort in Somerset County seceded from Middle Creek Township to create Seven Springs Borough, enabling them to float bonds to provide sewer and other infrastructure improvements.

Herr said that what is particularly discouraging is when municipalities have implemented land-use planning and then had the rug yanked from under them.

An example came in 1991 when New Morgan Borough was created out of Caernarvon and Robeson Townships by developer Raymond Carr in the middle of pristine Amish country in Berks County. That paved the way for an $800 million residential development, complete with Victorian village, hotel, and golf course — and a solid waste facility. The site was the mouth of an old Bethlehem Steel underground coal mine. In this instance, Caernarvon and Robeson Townships had instituted land use and subdivision zoning as the experts advise, only to see it go for naught.

John Brosius of the Pennsylvania Department of Environmental Resources tells of the problems that arose in his home county of Lehigh with the siting there 17 years ago of a Kraft food processing plant and a Schaefer brewery (now Stroh's).

As part of the package to attract those industries, the taxpayers built a $4.7 million sewage treatment plant. Unfortunately, it failed to do the job. That set off a long legal battle, which eventually resulted in a requirement to construct a new $49 million sewage plant, for which the taxpayers' share came to $40 million — many, many times the original intention. "Everyone was misled — both sides. It turned out that the sewer systems simply weren't big enough for the waste output of the plants, and the taxpayers there have been playing catch up ever since," Brosius explained.

The point is that municipalities need carefully to look any gift horse in the mouth, no matter the temptation. Brosius suggests that it will never hurt for a municipality to check first with the state Department of Environmental Re-

sources as to questions of noise, odor, waste, and the liabilities attached thereto. But another point is to question the haphazard system of planning and zoning that exists in Pennsylvania — only 53 percent of the state has any semblance of planning or zoning at all, according to Brosius.

The *Pottstown Mercury* in a notable 1990 series of editorials, "The Land: Ours to Conserve for Future Generations," carries a series of quotes from Robert Funicello of Westchester County, New York, who contends a new type of zoning is needed to protect open space.

"Traditional zoning laws were designed to rationalize the development of cities and other developed or partially developed areas. But traditional zoning laws, because they contemplate some form of development on all land, are ill-suited to protecting those values that are lost when land is developed. We are learning that one-acre, two-acre, and even four-acre zoning will not prevent development that eradicates the landscape, agricultural use, and openness values that together define these areas," the *Mercury* quoted Funicello as saying.

As the Frazer, Seven Springs, and New Morgan Borough affairs demonstrate, municipalities may think it's great to keep zoning matters in their hands and to fight any effort to widen zoning controls, say at the county level. But this system can leave them wide open to exploitation beyond their control.

Business groups such as the Allegheny Conference on Community Development in Pittsburgh in the name of efficiency periodically call for consolidations of municipalities. That inevitably seems to arouse the cry of "metropolitanism," as if anyone still believed that some kind of supergovernment is the answer.

Yet interviews for this issues paper found almost no evidence that municipal fragmentation made any difference in site decisions, even when the location itself overlapped municipal lines. If anything, some corporations use this diffusion for leverage purposes, working one municipality against another.

That factor, of course, could argue for moves toward overcoming fragmentation as a part of the job-creation process. Moreover, there is new evidence that citizens may be readier for change than is usually assumed.

Allegheny County's government has just completed a major community effort called Allegheny County 2001 to determine what citizens want by the end of the century. Panels of community leaders tackled such subjects as education and training; criminal justice and public safety; environmental quality; conservation and recreation and development, and then tested their proposals in public meetings.

One conclusion of the panel on development, chaired by Pittsburgh architect Donald Carter:

"In preliminary Development Panel meetings, discussion often came back to the structure of local government. Many said there was too much fragmentation in local government [130 municipalities, 42 school districts and more than 200 authorities in Allegheny County], that it hurt our growth, and that public resources were being wasted. Fragmentation, whether in public safety, zoning, or water, increases costs and results in questionable quality of service. This is wasteful. Local government is not wasteful. But the crazy quilt of local governments based on meaningless boundaries is."

A survey showed that more than 60 percent of those responding would be willing to merge their municipality with another if current public services would continue without increased costs; nearly 30 percent opposed. Even more surprising was that almost as many answered Yes as No (around 45 percent in each case) to the idea of merging their municipality if it meant better public services, even if at "a slightly higher, but fair cost to you."

Should counties as well as lower subdivisions of government decide mergers could help their job-creation potential, these data could have a bolstering effect.

Making Training a Priority

Interviews about the job creation process suggest that that phrase is becoming as much a key as the oft-expressed "location, location, location" real-estate definition. Person after person alluded to it at some point in discussions.

Robert Ady of the Fantus plant-location firm said, "The hot button for the future will be having a qualified work force available for a prospective employer." He said he wasn't talking only of blue-collar workers but of white-collar employees as well.

"In the next ten years there will be tremendous changes in office operations. They'll be paperless, just as plants are becoming paperless. There will be much less job definition; you won't come in and just work a word processor all day. There will be much more of a team concept; and we don't know how to work in teams," Ady explained.

In Pennsylvania the community colleges have taken an important role in job training. For example, the Community College of Allegheny County (CCAC)

has provided customized training programs for a wide range of clients since 1973. Since 1988 its record includes such clients as General Motors Corporation, 4,025 employees trained; USX Corporation, 1,091; Kane Hospital, 1,372; H.J. Heinz Company, 1,132; and Westinghouse Electric, 314.

Equally important in terms of job creation has been CCAC's history of working with incoming plants to train new employees ready to work when the factory opens.

CCAC also has major programs for training nurses (2,275 students since 1985) and health-care workers (2,190 since 1985). In addition, of course, it prepares large numbers of graduates to continue their education (40 percent of the CCAC class of 1991), including transfers to four-year colleges (27 percent of the class).

A CCAC official said that community colleges across the state are offering similar training programs, tailored for the particular needs of their region. Here, then, is a valuable job-creation resource for governmental officials at all levels.

Meanwhile, public school systems are being urged to revamp themselves to meet the new requirements. What is particularly interesting is a new emphasis AWAY from the college-degree route.

People in business as well as some academics point out that, in reality, only about 30 percent of today's jobs require a college degree. Yet our society has acted on the assumption that everybody ought to go to college for four years to obtain a bachelor's degree.

Now more attention is being paid to the vocational-technical track and away from the notion that it is a dead-end good only for dumdums. A particular innovation is the so-called 2-plus-2 system, in which eligible high school juniors are put on a path of specialized work-study programs that continues through two years of post high school education. However, this is not just the old auto mechanics shop route. The idea is to integrate with vocational training the classroom math and English skills that workers must have nowadays — in such a way that presumably "boring" subjects make sense for the non-academically inclined. Moreover, every attempt is made to provide on-the-job experience at plants and offices.

Dr. Ferman Moody of the State Department of Education explains, "A kid can be fascinated by cars and working with them but get left at the beach if he's stuck with a degree without academic skills. The way things are constantly changing, we have to teach systems technology, not just a specific skill that may become outdated." Moody is state director of the Bureau of Vocational-Technical Education.

The Pittsburgh Public Schools, for example, have abolished the "general education" track, which often left a high school graduate with a degree and nothing else with which to seek a job. There are now just two tracks — college preparatory and the 2-plus-2 option.

Moody, commenting on the "general education" option, said that too often its graduates, in the absence of skills for a job, try to go on to college but are doomed to fail. He said that 60 percent of high school graduates in Pennsylvania go on to post-secondary training but that only 24 percent graduate with a bachelor's degree before they are 25 years of age. (The qualification is inserted in that statement because many students later go on to get degrees; the average age of community college students, for example, is 29.) "We are trying now to take care of that forgotten half," Moody said.

He noted that there are 530 comprehensive high schools in Pennsylvania with some sort of preparation both for jobs and for college. There are 87 vocational-technical schools offering everything from agriculture to home economics to masonry to skills necessary for working in computerized manufacturing.

Any discussion of this subject brings to the fore the German apprentice system. That model starts a youngster on the vocational-technical track much earlier and takes him or her through a program involving the business community as well as the schools — frequently with more days at work than in the classroom.

A major advantage is that in Germany historically the quality of the apprentice system has given stature and prestige to those graduating from it. They are not looked down upon as, unfortunately, can be the case in this country concerning people in the vo-tech system. However, there is general agreement that moving to anything like the German apprentice system would take a major change in thinking in this country, with its obsession with college degrees. Many parents don't want their children tracked so early; nor do they want to relinquish the "second-chance, late-bloomer" idea of obtaining a college degree somehow sometime. (Advocates of 2-plus-2 argue that there is nothing in that system that precludes a young person from altering course at any time toward a college degree. But to be able to switch, Moody asserts, "You must have the basics," the reason vo-tech education is being revamped.)

Beth Gill of the Workforce Excellence Commission in Pittsburgh con-

tends that even those going on to college would benefit from some vocational and technological training as part of their preparation for a society constantly being changed by technology.

Workforce Excellence itself in the past two years has adopted what its executive director, Rob Rogers, calls "a broader vision." While it continues its original emphasis on dislocated workers and the disadvantaged, it now has enlarged its mission to include the creation here of a world-class work force.

In recent months Workforce Excellence also has concentrated on what can be done to train non-degreed persons for employment in industries expected to expand greatly in coming years. The first two fields chosen for specific forums were health care and environmental services.

But what about the younger generation?

In Pittsburgh, the public schools and a unique organization called Partnerships in Education (PIE) have been working together for several years on a career system from kindergarten through high school to prepare young people for making decisions about their career paths.

PIE, located at the Greater Pittsburgh Chamber of Commerce, facilitates business involvement with the public schools through mentoring, helping with the curriculum, and providing on-the-job intern experience for high school youngsters. At present there are approximately 80 partnerships between schools — both elementary and secondary — and businesses or community institutions. Some schools have more than one partner.

A major vehicle for PIE's collaboration with the Pittsburgh Public Schools in recent years is called the Pittsburgh Promise. The main thrust of the Pittsburgh Promise has been the establishment on a model basis of Career Centers at two high schools, Oliver and Carrick, linked with approximately 70 employers. The program provides counseling, planning, and referrals. Its job component includes a pre-employment training course and a job-placement function, including summer job opportunities.

In its various efforts, PIE has worked with employers and community agencies to decide just which competencies in writing, math, etc., are needed for jobseekers in today's world.

Jeanne Berdik, PIE's director, explained, "What do we want our children to look like — in skills, attitudes — for a successful functioning in our society? And, likewise, how do we get all the stakeholders in society — schools, business, community organizations, job-training agencies — to agree on these competency goals and to take their proper role in following through?"

The career competencies that have been developed thus far through PIE's collaborative process were officially adopted by the Pittsburgh Board of Education in December 1991 and are being woven into the curriculum system-wide.

Rob Rogers said there might have been a time when educators were aloof in relation to business. But Rogers said that many superintendents and teachers admit they are floundering in seeking answers and consequently are eager to reach out to create links with business.

"Officials need to think of school systems as essential to the 'human capital formation' that is integral to economic development," Rogers said.

Other major job training entities in Pittsburgh are:

- Pittsburgh Partnership, the City of Pittsburgh's office supervising contracts for training disadvantaged adults and young people under the federal Job Training Partnership ACT (JTPA).
- The Allegheny County Bureau of Federal Programs, which includes under its duties the supervision of some federally funded job-training programs. However, the county's JTPA program is directed by Workforce Excellence.

Any survey of the job-training situation highlights the pressing need for more businesses and industries willing to provide internship opportunities for young people. It is not enough for business to engage in education-bashing in decrying the lack of preparation of persons seeking employment. It seems quite obvious to this writer that business needs to become an active part of the solution. Those hesitant should check with agencies such as PIE (412-392-4545), which can direct callers to corporations that have taken the plunge.

The Labor Climate

The question of the labor climate inevitably comes up in any discussion of job creation. While people in business are careful not to be quoted, it is clear that some of them consider the strength of unions to be a drawback for attracting and holding industries in Pennsylvania.

Indeed, some major employers have relocated to other states, particularly in the Sun Belt, and other countries to avoid unionization.

Some labor defenders contend the picture is distorted by the number of teachers' strikes that have occurred in Pennsylvania since the passage in 1970 of Act 195, the collective-bargaining act for governmental employees, including teachers. They say this has nothing to do with industrial strikes, where

Pennsylvania's record compares favorably with other industrial states. (No help for this argument, though, were the bitter 1992 strikes by the drivers against the Port Authority Transit of Allegheny County and by the Teamsters against the *Pittsburgh Press.*)

However, the constant battles in the legislature over attempts to amend Act 195 have kept the subject fresh. Note: These efforts resulted in the 1992 legislature's passing a revision law establishing a strict timetable for bargaining and mediation, outlawing selective strikes (sporadic walkouts and work stoppages at particular schools or departments), and promoting the use of fact-finding and non-binding arbitration procedures. The legislation had the support of the Pennsylvania School Boards Association and the state's two teachers' unions.

Some groups traditionally allied politically with organized labor complain, however, about Pennsylvania's spotty record concerning minorities and women.

On the other hand, the state has created a Harrisburg-based agency, whose acronym is MILRITE, with responsibilities for establishing cooperative activities among business, labor, and government. Here is an agency whose expertise is available to local government officials.

Lynn Williams, president of the United Steelworkers of America, disagrees that unions are a liability. He believes labor should be brought into the plant procurement process, something that almost never happens, he added. "Let's meet this question head-on by having some labor people talk to prospective employers so they won't be frightened to death. We could be quite reassuring about their coming into a labor town.".

The USW leader pointed to such cooperative efforts as the no-strike agreement at the Greater Pittsburgh International Airport that has made possible maintaining a tight schedule for completing the Midfield Terminal there. Williams noted that the USW and the Building Trades Council of Pittsburgh have partnered with business in the effort to bring a magnetic levitation (Maglev) transportation experiment to Pittsburgh. And on the national scene, he termed the General Motors Saturn plant in Tennessee "a union-created project."

Williams said "If you want productivity and high quality it is best to have a union. When unions have a voice, in this age of participation, big things happen."

It is interesting in this connection that Duquesne Light in a portfolio for industrial prospects includes a chart entitled, "Work stoppages reduced in Pennsylvania." It shows a decrease from a 700 high in 1975 to about 100 currently, with the greatest decrease coming in the private sector. The chart concludes: "In recent surveys, most business leaders in Western Pennsylvania rate the region's workforce as a tremendous asset to continued economic development."

Duquesne Light has also published a booklet containing extensive quotes from employers in the region praising the quality of their workers.

The latest "State of the Region Report" from University of Pittsburgh's Center for Social and Urban Research notes: "One measure of workforce quality is provided by the opinions of the region's employers. Our survey of October 1990 found that the region's employers are extremely satisfied with the quality of their workers. From 94 to 98 percent of the respondents rated their workers as excellent or good on attitude toward work, cooperation, productivity, ability to learn, willingness to learn, and literacy."

Note: Both union and nonunion employers are covered in such surveys.

USW's Williams noted that employers "among our successful competitors, such as Germany and Japan, work with their unions, rather than against them." For example, he said, they are not afraid of pattern bargaining — having a labor agreement worked out with one corporation that becomes the pattern for the entire industry.

Labor has found the Japanese easy to work with in already unionized plants, even though they usually resist unionization in non-union factories, Williams said.

The question this region — and the nation — must ask itself, the USW president contends, is whether it is going to follow a low-wage, union-avoidance policy or whether it will "stop its warfare with its own workers and start working with them instead."

How Important Are Taxes?

Local taxes as an incentive or disincentive may be the most overblown element in the whole business of job creation through attracting industry and business to locate in your bailiwick.

You wouldn't know it from all the ballyhoo on the subject. But Bennett Harrison of Carnegie Mellon University, after a large-scale study, concluded that tax factors "aren't even a hill of beans in the cost of operations, compared to labor and transportation, items that corporations really watch."

There are two reasons why tax rates don't deserve the attention they attract.

• As explained in previous sections of

this issues paper, in most cases taxes come near the bottom of the list, a consideration after a locality has passed muster on numerous other factors.

Besides, as Harrison points out, corporations know good and well that when they pay a dollar additional to the state or local government, they can deduct up to a third of it from their federal tax bill.

• State taxes usually are more of a factor than local taxes. But even there, the disadvantages in one state's tax system usually are offset by different disadvantages in its neighbor's levy structure. For instance, Jay Aldridge of Penn's Southwest cites six kinds of state levies that corporations eye closely — machinery tax, inventory tax, corporate net income (CNI) tax, capital stock tax, worker compensation, unemployment compensation. Pennsylvania, unlike some of its neighbors, doesn't have the first two — something that helps offset a CNI tax that business leaders think is overly high.

A 1990 survey of foreign-based companies by the Pittsburgh office of KPMG Peat Marwick found that for European firms lower taxes ranked 12th in importance among state location factors, far behind the lead items — proximity to key industry and market suppliers; air transportation; and the personal preference of executives. The report said:

"Contrary to accepted wisdom, state and local tax incentives are heavily outweighed by economic, environmental, and infrastructural issues in attracting foreign investment."

Many states and localities are beginning seriously to question the wisdom of lavish concessions on taxes, low-cost financing, and bond issues.

Harrison, who has made one of the most comprehensive studies of the subject, came to the CMU faculty and the university's Center for Economic Development from the Department of Urban Studies and Planning at the Massachusetts Institute of Technology (MIT). In a report on the study, he wrote:

"Nearly every state government in the country uses tax credits, subsidized loans, and other instruments to induce private investors to expand or construct new facilities within its borders. A theoretical analysis of such policies, in the context of a realistic picture of the contemporary structure of American industry, indicates no reason to expect that tax or related cost-side incentives will — by themselves — generate new investment (if any segment of the business community is likely to be responsive, it would be those firms paying the lowest wages and employing the fewest workers). Finally, a political-economical analysis of business incentive policies leads [to the conclusion] that these costly subsidies constitute a form of 'welfare grant' to the business sector, especially in declining areas of the country," Harrison concluded.

Taking up this theme, *Newsweek* magazine in an article entitled "Can You Top This?" (February 17, 1992 issue) described how "the war between the states — for new business — rages on. But now some worry it's gone too far."

The heart of the article about the emerging beggar-thy-neighbor atmosphere: "States fighting other states over businesses has long been a blood sport. Though no one keeps figures on just how many deals are cut each year, state and local governments pay out billions to companies in cash grants, land and tax breaks to get new jobs or hold onto old ones. But the recent round of economic civil wars — from recent dogfights over airline maintenance facilities to the struggle over which General Motors plants will close in the company's 74,000-person layoff plan — have state officials and taxpayers wondering whether the investment pays."

Many states and localities that offered major tax-abatement lures have attracted jeans-factory types of business that then blithely moved on when the forgiveness period ran out. These are called "runaways" in the trade.

Newsweek cites Indiana's win over Kentucky for locating a big United Airlines maintenance center at Indianapolis. But that city now finds it has to pay $112 million of Indiana's $390 million promise to United — while it faces a $15 million budget deficit of its own in 1993. Mayor Stephen Goldsmith lamented, "You can't say no, but you can't afford to say yes."

A University of Minnesota economics professor figured that loans, loan guarantees, and outright grants promised to Northwest Airlines for bringing in two new maintenance facilities will cost Minnesota taxpayers about $500,000 for each job.

Of course, Pennsylvania had its problems along this line at New Stanton, first with Chrysler and with Volkswagen, where massive subsidies lured companies that didn't stay for the long haul. Susan Hansen, professor of political science at Pitt, has written about the Volkswagen project: "Estimates of the total cost of the benefit package ranged as high as $100 million, including tax abatements, direct subsidies, and construction of a highway spur." That statement comes in a chapter Hansen has written for a forthcoming book, *The Government and Politics of Pennsylvania* (University of Nebraska Press).

It can be argued, of course, that part

of that cost will be recouped with Sony's decision to place two plants on that site. But, as Hansen points out, "the deal negotiated by the state involved forgiving most of the monies the state had loaned to Volkswagen."

States and localities also find themselves whipsawed by companies threatening to move. When Chase Manhattan Bank considered moving its back-office operation and about 5,000 workers to Jersey City in 1988, the city and state of New York stepped in with a commitment of $235 million in tax breaks and subsidies.

That's a reminder of how Pennsylvania's costly efforts to keep the Mack Truck facilities in Allentown came a cropper as the firm eventually moved almost everything to North Carolina.

Robert Gleeson of the Center for Business Entrepreneurship at Carnegie Mellon University says of the tax-incentive argument: "We say you just have to keep beating down that fire that keeps flaring up." The great danger is that a state or locality can cut seriously into its revenue base. But Gleeson added, a note of resignation is his voice, "The trouble is that people say that even if these incentives don't work, they send a pro-business signal." But if states aren't going to waste money on raiding their neighbors, what are their alternatives?

Arthur Rolnick of the Federal Reserve Bank of Minnesota urges states to "take your money and stick it in your roads, your sewer systems, your schools. That's the way you create a good business environment." And David Alan Aschauer, an economics professor at Bates College, estimates that spending $100 on water and sewer systems will prompt $250 in private-sector production, which is more efficient use of government funds than is projected for most giveaway deals.

Bennett Harrison makes a point of particular interest to a region talking of becoming a high-tech center. He said that a major reason for the success of Silicon Valley in California was that from the start the firms there made a kind of "social contract" with the local communities. Realizing the importance of the infrastructure — and particularly of educational excellence for the families of their executives as well as their employees — they made it clear they were willing to bear the necessary tax load if the communities would keep up their end of the quality bargain.

The consensus of these various experts suggests the wisdom of municipalities working through state and regional development agencies, rather than thinking they can outsmart "the big guys" by themselves.

And certainly it shows the wisdom of not rushing forward with handfuls of concessions until the lay of the land is clear.

Final Observations

Despite some interviewees' comments to the contrary noted in this issue paper, I believe local government officials can play a role in the job-creation process. But they must do that in collaborative efforts, rather than as Lone Rangers.

Local government officials need to find out how they can work best with regional economic development groups. They need to support any economic stimulus in their area, even if it is in somebody else's bailiwick. After all, there are bound to be fallout benefits in terms of jobs for their residents.

At the same time, working with other municipalities might head off "beggar-thy-neighbor" deals where someone gets the plum, but loads the bulk of the traffic, noise, and pollution problems on surrounding municipalities.

Keeping the infrastructure — roads, bridges, sewer and water lines — in shape constitutes another role for local government. Again, this may require a banding together of municipalities to obtain needed action and aid from the county and state — particularly for the roads and bridges in their jurisdiction.

Helping build a favorable climate is something local officials can do. They need to visit their local business and industrial leaders to find what they can do to improve that climate. They also can help build better management-labor relations so that that can be a plus for their area, rather than a minus. Spotting labor leaders amenable to cooperating in economic development efforts can be most useful. The same is true of leaders from the minority community.

As this issue paper has made quite clear, job training is increasingly essential and sometimes can tip the balance in a corporation's decision to locate. School officials, therefore, definitely need to be brought into the picture. And this may mean an armistice on both sides to work out complementary tax arrangements rather than trying to make political hay by carping at the other fellow's levies.

Business and industry leaders need to be helpfully responsive to overtures by local government officials. They need to accept the fact that higher taxes may at times be necessary to keep the local infrastructure and particularly the schools at a high quality level. But they have every right and duty to push local governments to do more work together for greater efficiency.

It should be abundantly clear from this issues paper that the taxpayers of

Pennsylvania and its local governments have been most generous in providing money for economic development in many different ways. Schools and welfare obviously are not the only beneficiaries of government spending.

Business and labor also need to seek cooperative ways to enhance the labor climate. Business leaders cannot expect such cooperation if their hidden agenda is a union-free environment. There is something contradictory about, on the one hand, praising the quality of the work force in a strong-union region and, on the other hand, poor-mouthing that same region because it has unions.

Labor, on its part, must strive to demonstrate that its interest in economic development isn't just lip service.

Finally, a piece of job-creation advice by DCA Secretary Karen Miller to local government officials can be applied to all concerned:

"If you can't lend a hand, get out of the road."

Clarke Thomas is the senior editor (retired) of the Pittsburgh Post-Gazette, *where during his 20 years as an editorial writer, local government was one of his prime topics.*

Utilities Helping Businesses Meet Global Challenges

by Hoyt E. Coffee

Utilities are offering services worldwide to help businesses deal with increasing global competition and environmental pressure.

Gas and electric utilities have always been a valuable resource for the corporate asset manager, whether involved in a wide site search or trying to cut operating and occupancy costs.

And judging by *Site Selection*'s most recent survey of utilities worldwide, that's not about to change. In fact, utilities are actually increasing the level of economic development and other business services they offer.

According to the survey, conducted in May, nearly half of responding utilities *increased* their overall economic development budgets during the previous 12 months (see chart). And 28 percent of utilities plan to expand their economic development staffs during the *next* 12 months.

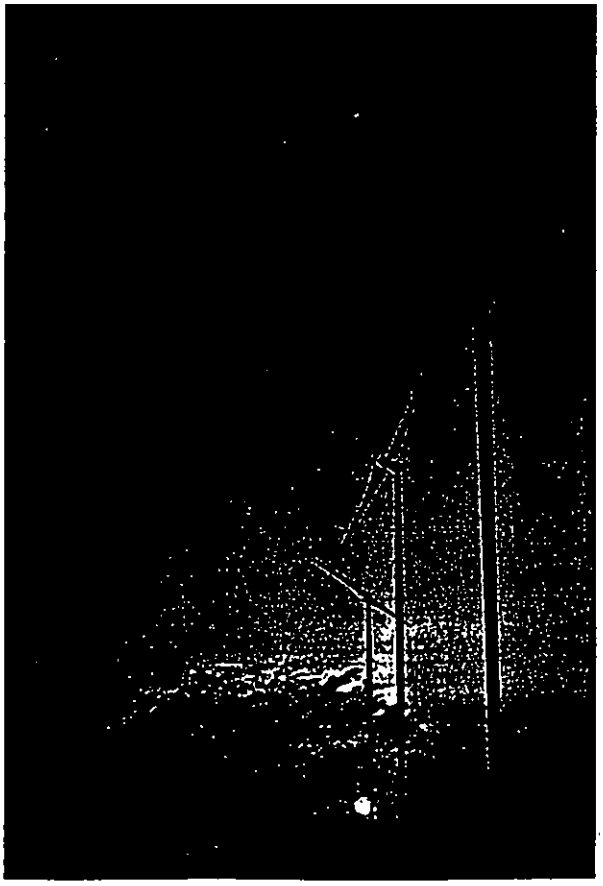
A separate study by the Edison Electric Institute (EEI) corroborates the *Site Selection* findings. According to EEI, a 1993 survey of 96 member utilities showed that they are devoting more resources to economic development. The responding utilities currently employ more than 670 economic development staff members and spend more than $67 million a year.

"A utility isn't like other companies that can pick up and move if the economy turns sour," says E. James Ferland, chairman and chief executive officer of New Jersey's Public Service Electric and Gas Co. (PSE&G). "We have to stay here, so it is in our best interest to make sure the economy is healthy enough to support us." That healthy self-interest isn't manifested only in efforts outside the utilities' offices, of course. Like the corporate counterparts they serve, utilities' economic development departments are under increasing pressure to be more productive. Some 86 percent of survey respondents said they have been pressured to get more "bang for the buck" in their economic development expenditures.

Other results of the *Site Selection* survey include:

- More than a third of utilities now have an international arm offering electricity or gas outside their home countries. Likewise, 35 percent offer special economic development services to help their customers expand globally.
- Energy cost analyses ranked as the most common site-selection service among utilities, offered by 64 percent of survey respondents. Comparative rate analyses were second at 63 percent.
- Among services to existing businesses, energy-conservation audits of existing facilities led the way, offered by 85 percent of utilities. Process engineering and manufacturing technical assistance to make operations more efficient was the second most common service. Almost half of utilities have increased their emphasis on services

You may obtain more information through GeoFax, Conway Data's fax-on-demand system. Call 404-453-4200 (USA) and request documents #42240, 41280 and 40670.

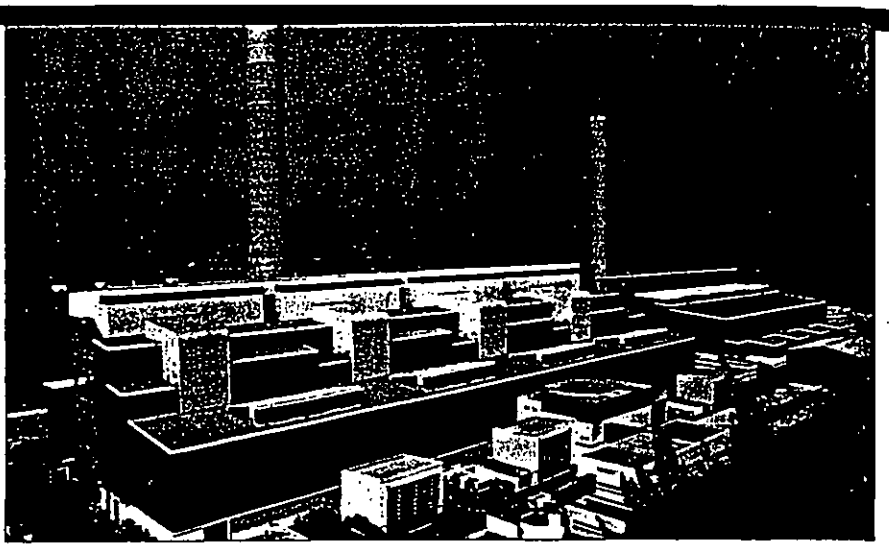


TU Electric's "Energy Park" explores alternative energy sources, including wind power.

to existing businesses despite the improved economy.

• More than two-thirds of utilities offer incentives to industrial and commercial customers designed to encourage energy efficiency.

• Some 68 percent of electric utilities have a program to promote "electro-technologies," uses of electricity that offer environmental or efficiency improvements over other methods (usually requiring fossil fuels). And 63 percent of U.S. electric companies have endorsed or adopted the Clinton administration's voluntary plan for reducing greenhouse emissions.



This power plant in Kowloon, Hong Kong, is part of China Light & Power Co.'s new program offering special discounted rates to heavy power users.

New Services for a Global Economy

More and more, utilities are offering services to help businesses in their service areas compete on a global scale, and they're employing ever-more-sophisticated tools to that end. Take PSE&G's new TradeLink-NJ Program, for example.

Launched last fall, TradeLink aims to

EXECUTIVE SUMMARY

✓ Utilities worldwide are upping the economic-development ante, adding more personnel and increasing budgets to better serve commercial and industrial customers.

✓ But they're not spending willy-nilly. Some 86 percent of utilities' economic development departments are facing the same pressures as their corporate customers to increase productivity.

✓ More utilities are helping customers develop export markets, providing information and direct assistance and helping establish essential overseas contacts.

✓ Electro-technologies — uses of electricity that provide efficiency or environmental benefits over other processes that usually require fossil fuels — are the subject of a major business-services push by electric utilities.

✓ Utilities are leading the way in developing cleaner and alternative fuels, as well as environmentally friendly ways to use them such as electric cars.

✓ More than two-thirds of U.S. utilities have adopted or endorsed President Clinton's "Global Climate Challenge."

help small and medium-sized companies in the state determine what export opportunities they have, especially to Europe, and then take advantage of them.

"There is no reason why New Jersey cannot become to the European Community (EC) what California has become to the Pacific Rim," former Gov. Jim Florio said at the program's debut.

According to Ferland, consultants at DRI/McGraw-Hill helped focus PSE&G's export-assistance effort, determining that the 12 EC nations, with more than 300 million consumers, would provide the best overseas market for New Jersey goods. The consultants also identified seven industries with the greatest export potential: computers and precision instruments; non-electrical equipment; pharmaceuticals and toiletries; electrical equipment and telecommunications; chemicals and plastics; food and drinks; and business services.

"We will focus our TradeLink efforts in these business areas and these markets," Ferland says. "The TradeLink-NJ services will be offered in three stages: an initial qualification to ensure that exporting makes sense for a particular firm; planning advice by a network of key export assistance providers throughout the region, including trade associations, local chambers of commerce, federal and state government assistance programs and financial institutions; and actual implementation.

"PSE&G will remain involved as an overseer through all three phases of the effort."

To manage the huge library of research reports, market analyses, product information and the like needed to support the export-assistance effort, PSE&G established a computer network to link the dozens of people involved in TradeLink. The system, provided by Alacrity Systems Inc. of Hackettstown, N.J., allows TradeLink to assemble research and summaries quickly and fax them to companies interested in exporting. It also provides a tracking system to keep tabs on how well the program is working.

"PSE&G believes the guidance it plans to offer will be the catalyst small- and medium-sized businesses need to undertake an international initiative," Ferland says. "The boom of the '80s is over, but perhaps this effort can help us recapture some of that in the '90s."

Trade Fair Program Provides International Opportunities

Several other utilities also are offering assistance to international-minded companies in their service areas, and some are tying that effort to other new initiatives such as promoting "electro-technologies."

A good case in point is American Electric Power (AEP) of Columbus, Ohio. In addition to its Japanese Development Program and Export Led Development Program, AEP recently implemented an International Trade Fair Assistance Program, designed to encourage the industrial customers of AEP's seven operating companies to participate in selected trade fairs in foreign markets.

AEP initiated the program in December, taking representatives from six industrial customers to the REP-COM show in Mexico City, the first Mexican trade fair after passage of the North American Free Trade Agreement. According to AEP, the six companies — representing products ranging from frozen confections to mining machinery — made valuable contacts and reported an estimated $3.3 million in projected new sales over the next two years as

a result of their participation.

"This program, to help small businesses such as ours penetrate the global marketplace, is invaluable," says Steven A. Cohen, sales manager of Ohio Central Steel Co. "The trade show enabled us to establish contacts with over 35 dealerships interested in representing the machinery we manufacture.

"We did not realize the vastness of this marketplace until we arrived. The overwhelming acceptance of our product line should lead to future exports, expansion and increased employment."

AEP, which was awarded the American Economic Development Council's Best of Class award for the trade-fair program in May, is planning a mission to Canada later this year. In June it took three industrial customers to the ElectroTech '94 trade show in Birmingham, England.

"ElectroTech '94 is one of the premier shows for the electro-technologies industry," says Martin L. Walsh, manager of international development for AEP Service Corp. "We're excited that we can help our industrial customers explore exports to the British market firsthand."

Electro-Technologies: 'Ecowatts' for the Future

Electro-technologies are the subject of a major business-services push by electric utilities. According to the *Site Selection* survey, 68 percent of electric providers have a program to promote electro-technologies in their service areas.

"Declining electricity costs and rising electricity use are beneficial both for the economy and the environment," says EEI consultant Mark Mills, who coined the term "ecowatts" to describe these new uses of electricity. During the 1980s, electricity growth paralleled growth in gross national product, but electricity prices declined 16 percent, say authors Clark Gellings of the Electric Power Research Institute (EPRI) and EEI's Thomas Morron. Meanwhile, overall energy efficiency improved 11 percent.

"Today, in fact, the [United States] uses only 7 percent more primary energy than it did in 1973, yet the GNP has increased some 46 percent," Gellings and Morron write in *Electric Perspectives*.

Mills has identified 145 emerging elec-

tro-technologies that he thinks will have an impact in the future, from electric lawn mowers to plasma torches for treating hazardous wastes. When it comes to industrial uses, Mills say electrification advocates point to the use of electric-arc furnaces in steelmaking as a success story. That electro-technology allowed the U.S. steel industry to cut its work force 30 percent between 1982 and 1990, while production improved 45 percent. The switch away from coke-fired steelmaking also benefited the environment.

EEI and EPRI began a collaborative effort with utilities earlier this year to promote electro-technologies, ranging from environmentally benign HVAC to electric-car batteries. Several utilities have shown interest in the project, including TU Electric, Arizona Public Service, New York State Electric & Gas, PECO Energy, Utilicorp, PSE&G, Pacificorp, Ohio Edison and Pennsylvania Power & Light.

Alternative-Fuel Vehicles

Some utilities are getting into electro-technology promotion in a big way. For instance, Pennsylvania Power & Light (PP&L) offers several grant programs for customers who install electrical systems for such things as drying and curing or food processing. And PECO Energy in Pennsylvania offers both electro- and gas-technology assistance.

Dallas-based TU Electric has even created a special "Energy Park," a research and demonstration center for new electro-technologies — as well as renewable energy sources. The first phase of the Energy Park, launched last year, includes TU Electric's Customer Technology Application Center, which will "help customers evaluate new electro-technologies and solve customer problems," according to a company statement.

The Texas utility has erected three 300-kilowatt wind turbines, capable of powering 100 homes annually, at the Energy Park to "give TU Electric direct experience with wind generation and provide demonstration of this technology." TU Electric and 20 other electric utilities also are conducting cooperative research at the park on Dodge Caravan electric minivans.

Alternative fuel vehicles — not just electric, but natural-gas powered, too — are getting a lot of attention from utilities as they offer services to help companies meet pressures to reduce emissions. Pending federal legislation would require large fleet operators to include alternative-fuel vehicles by 1996, and California has already enacted laws requiring that 2 percent of all vehicles for sale in the state be powered by electric batteries by 1998. Other states and regions, especially in the Northeast United States, are expected to follow California's lead.

"If Detroit is building clean cars for California, Detroit can build clean cars for the rest of the country, too," the EEI's Morron told reporters after a meeting of the U.S. Ozone Transport Comsn. "With more states adopting the California standards, the cost of production will be lower, while sales will increase and air will be cleaner." The Big Three automakers inked a voluntary deal with the Clinton administration late last year in which they agreed to develop much more environment-friendly vehicles over the next 10 years. Utilities, though, are way ahead on this issue — not surprising considering their vast experience with environmental regulation.

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Utility Section

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"Stationary sources, such as electric utility generating plants, have long been subject to strict emissions controls and should not be asked to take new, even more expensive steps to further reduce . . . emissions until mobile sources have done their share," says Robert Beck, EEI's vice president of environmental affairs.

How are utilities acting to boost this effort?

• Georgia Power Co. has established an electric-vehicle "on-loan" program to provide electric vans to key business customers.

"With this program our customers have the opportunity to use electric vehicles in a variety of real applications, just as they would use any other vehicle in their fleet," says Marie Moucher, manager of Georgia Power's Electric Vehicle Program.

• Atlanta Gas Light Co., meanwhile, is operating 500 natural-gas vehicles and has eight private refueling locations.

Utility Economic Development Efforts Paying Off

The efforts of utility economic development departments are paying off in a big way for job-hungry communities across the nation and around the world.

Generally working in concert with national, state and local governments, utilities are providing innovations and incentives that also bring much-needed investment to those communities. Some examples from the past year include:

• Indiana Michigan Power helped put together a package that secured a new, state-of-the-art steel mini-mill for northeast Indiana.

Steel Dynamics Inc. announced in February that it would locate the $514 million facility in Butler, creating some 600 high-paying jobs. Incentives offered to ice the deal totaled $37 million, including infrastructure and economic development grants, energy grants, work-force training, road work funds and tax abatements.

Gov. Evan Bayh says the success of the ultra-modern Nucor steel mill in Crawfordsville, Ind., which set industry productivity records, greatly influenced Steel Dynamics' decision.

• Iowa-Illinois Gas and Electric Co. played a similarly significant role in locating a $360 million IPSCO steel mini-mill in Muscatine County, Iowa, near Montpelier.

In fact, Gov. Terry Branstad specifically lauded Iowa-Illinois' John Wetzel, director of area development, for his part in bringing the Canadian company and its 300 jobs to the area.

Incentives for the deal included tax abatements and infrastructure development, but IPSCO President Roger Phillips cited low utility costs as a major factor in the location decision.

• PECO Energy's economic development professionals were instrumental in bringing Metro Machine Corp., a shipbuilder and maintenance contractor, to Delaware County, Pa. Building in three phases, the company's new facility could mean a total of 2,200 new jobs when at full operation.

PECO also had a hand in keeping Cephalon Inc. in Chester County, Pa. Although several states sought to relocate Cephalon, the leading pharmaceutical company chose to keep its 210 jobs in Pennsylvania. In addition, the company's expansion is expected to mean another 1,000 new jobs over a three-year period.

• When Ansonia Copper and Brass Inc. was facing liquidation by its Canadian owners, Connecticut's United Illuminating came to the rescue. The utility helped the metal-working firm, which had been in Ansonia, Conn., since the 1800s, cut its utility costs by 40 percent.

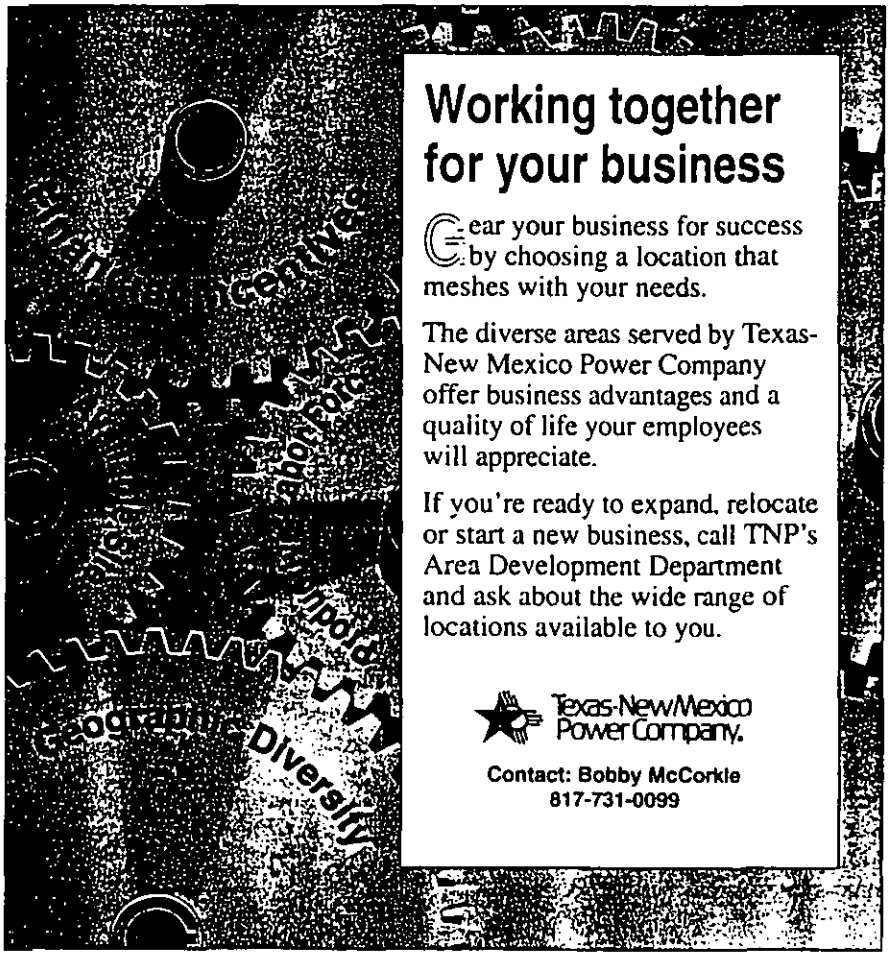
As a result, company management was able to keep the doors open and eventually allow Ansonia's 386 employees to buy out 77 percent of the company.

United Illuminating's energy-savings programs also helped lure paper-products maker Brooklace Inc. to Connecticut. The company had been considering a Southern United States location.

• Utilizing its energy-efficiency and process-engineering expertise, Connecticut Light & Power cut Fortune Plastics' annual power bills by $75,000, convincing the plastic-bag maker to keep its 140 employees in Old Saybrook, Conn.

• Alabama Gas worked out a combined deal with a pipeline supplier to play a part in securing Mercedes-Benz's much-ballyhooed $350 million auto plant to Alabama. The new plant will employ some 1,500 workers.

• Northern States Power Co. approved a 10-year contract to provide a 20-percent cut in the electric bill for John Morrell & Co. in Sioux Falls, S.D. The reduction was part of a $30 million package to aid the long-struggling meatpacking company and save 2,800 jobs.



Utility Section

• Southern California Edison, working with the Los Angeles Dept. of Water and Power, has set a goal of putting 1,000 electric vehicles in their fleets or in the hands of customers.

• Pacific Gas & Electric and the Sacramento Municipal Utility District plan to put 850 electric cars, vans and trucks to work in their service area.

Taking on the 'Climate Challenge'

When it comes to the environment, greenhouse-gas emissions represent "the most serious problem our civilization faces," according to Vice President Al Gore, and the administration he shares with President Clinton is taking steps to get utilities involved in solving that problem.

In May the administration and five utility associations signed the "Global Climate Challenge Agreement," which has been endorsed or adopted by 68 percent of utilities, according to the *Site Selection* survey. Aimed at cutting greenhouse-gas emissions to 1990 levels by the year 2000, the agreement encompasses five voluntary initiatives that utilities will undertake with the Energy Dept., including:

• developing commercial electro-technologies,

• investing in better forest management and tree planting,

• promoting electric vehicles,

• encouraging foreign utilities to be more efficient, and

• increasing the market for geothermal heat pumps.

Some utilities are going much further in their environmental efforts. New England Electric System, for instance, has unveiled a plan to cut carbon-dioxide emissions to 20 percent below 1990 levels. Significant in New England's program is that the utility is *not* planning to rely on natural gas as a replacement for much dirtier coal and oil to generate electricity.

"For reducing [nitrogen-oxide and sulfur-dioxide] emissions, natural gas can be tremendously beneficial," says Richard P. Sergel, vice president of New England Electric. "But in terms of reducing carbon dioxide, it's not that significant in the long run. This plan realizes that natural gas won't solve the problems of carbon-dioxide emission, even if that's all we used."

New England Electric also intends to

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Utilities Face a New World of Competition

The world is changing for electric and gas utilities, and the changes will have a dramatic effect on site seekers.

Formerly safe and content with captive customers, utilities are facing new competitive pressures as energy users are being allowed to shop around for power.

"The competitive genie is out of the bottle," Stanley Skinner, chairman of Pacific Gas & Electric, said during a June meeting of the 190 private companies that provide about three-quarters of the United States' electricity.

Congress set the stage for these changes two years ago when it required electric utilities to open their transmission lines to competitors and gave wholesale buyers the ability to shop around. Now, large electricity users are pressuring utilities to bargain on their rates, threatening to take their business elsewhere if current providers don't make concessions. Take Tosco Corp., an oil refiner in Stamford, Conn., for instance. The company recently negotiated a 23 percent reduction in rates for its Linden, N.J., plant.

"Wheeling," as shopping for rates is known, has both supporters and opponents, many of whom fear the cost of placating large users will harm individual electric consumers.

"Large industrial users are going to be able to get cheaper rates," says Ed Rothschild, an energy analyst with the consumer group Citizen Action. "But who's going to pay for that? It's going to be dumped on the residential and small business customers."

It's not only industrial users that are pushing competition; communities are getting in on the act, too. In Maine, for example, the town of Madison pulled the plug on Central Maine Power Co. in favor of Northeast Utilities, hoping for a 40 percent reduction in electricity costs. Central Maine Power must transmit the power on its lines, but Northeast Utilities agreed to pay the company $10 million in a compensation settlement.

Likewise, the town of Romeo, Mich., has been considering dropping Detroit Edison, and Massachusetts Electric Co. recently lost the Boston mass-transit system as a customer. Much attention has been focused on Las Cruces, N.M., as well as officials there acted to toss out El Paso Electric in favor of Southwestern Public Service Co. Another twist was added in that case when Central & South West Corp. of Dallas bought out El Paso and offered to freeze Las Cruces' rates.

El Paso Electric has also been in the spotlight on another issue stemming from deregulation; it is one of only two Chapter 11 bankruptcy cases in the electric industry in 60 years. But it won't be the last, according to a study by Fitch Investors Service Inc. The New York firm says that 38 percent of the nation's public service commissioners believe that the onslaught of competition will spark utility bankruptcies in

their states.

"A lot of shareholders will take a bath," says Roger Hale, chief executive of LG&E Energy Corp. in Louisville, Ky. The water is already running for some. FPL Group Inc., the parent of Florida's largest utility, shook up the industry in May when it broke a 47-year tradition of raising dividends.

"From the investors' standpoint, this was a major wake-up call," says Kidder Peabody analyst Steve Fleischman. "This is kind of a harbinger of things to come in the industry, that we could see more dividend cuts and just an overall slowdown in dividend growth."

Deregulation Hits Gas Utilities

Natural gas utilities are experiencing a sea change amid deregulation, too, and it will mean higher rates for some customers. In fact, according to a recent *Site Selection* survey, 22 percent of gas utilities have already found it necessary to seek rate hikes to cover the costs of deregulation.

Under a Federal Energy Regulatory Comsn. order, local gas utilities may no longer rely on a regulated system to ensure an adequate supply of gas for their customers. This "unbundling" of services requires the utilities to take responsibility for their own gas procurement, with pipelines reverting to common-carrier status.

As a result, many pipelines are having to cancel long-term purchase contracts, and experts predict the "transition costs" will be passed on to consumers. The Interstate Natural Gas Assn., a trade group of pipelines, estimates the costs at about $4.4 billion over three years. The General Accounting Office puts the cost at about $5.7 billion.

"At least initially, residential users won't do as well as they did before," says Michael German, vice president for policy analysis at the American Gas Assn. "And industrial users will fare better than they did under the regulated system because they will have more leverage to drive down their costs." Much as with electric utilities, their natural gas counterparts are offering better deals to industrial users to keep them in the fold. New York State Electric & Gas Corp. in Binghamton, N.Y., for example, had five large users threatening to leave the system last fall if rates weren't lowered.

"State regulators are heading in the right direction," says Donna Vandenberg, the utility's manager of gas supply and control. "But we need more flexibility to keep these customers."

—Hoyt E. Coffee

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speed up its renewable-energy efforts, including new programs in biomass and windpower. In addition, the utility is participating in a "carbon-offset" program in which it is helping manage a Malaysian forest to help offset carbon-dioxide emissions in the United States.

In the near future many experts predict a flurry of other programs designed to both cut utilities' greenhouse emissions and help businesses do the same. While the latest U.S. Environmental Protection Agency report says industrial emissions declined 6 percent from 1991 to 1992, much larger cuts are being demanded worldwide. At least 25 international organizations currently are addressing global warming, and the 50 nations that signed the climate-change treaty during the world environmental summit in Rio de Janiero could enact legally binding measures when they meeting next March in Berlin.

Combining Environmentalism and Economic Development

The majority of utilities (71 percent,

THE GLOBAL PICTURE: INTERNATIONAL ELECTRICITY PRICE LEAGUE TABLE, 1993-1994

RANKING			1993	1994	RATE OF INFLATION	
1994	1993	COUNTRY	¢/KWH	¢/KWH	%Change	%
1	1	GERMANY	10.21	10.10	(1.08)	3.20
2	2	SPAIN	9.91	9.90	(0.10)	5.00
3	4	ITALY	8.43	8.80	4.39	4.20
4	3	AUSTRIA	8.45	8.45	0.00	3.60
5	5	BELGIUM	7.94	7.78	(2.02)	2.40
6	6	U.S.	7.16	7.09	(0.98)	2.50
7	9/8	NETHERLANDS	6.47	6.68	3.25	3.20
8	8	EIRE	6.67	6.67	0.00	1.70
9	7	FRANCE	6.70	6.67	(0.45)	1.80
10	10	U.K.	6.40	6.19	(3.28)	2.30
11	11	FINLAND	5.33	5.33	0.00	2.20
12	13	AUSTRALIA	4.61	4.58	(0.65)	2.20
13	12	NORWAY	4.86	4.32	(11.11)	1.80
14	14	CANADA	4.22	4.18	(0.95)	0.20
15	16	SOUTH AFRICA	3.56	3.91	9.83	9.90
16	15	SWEDEN	3.92	3.88	(1.02)	1.90

- All prices expressed in cents per kilowatt hour
- The country average percentage increases are unweighted
- Figures based on customer size of 1,000 KW, 450,000 KWH per month and customer-owned transformer, industrial and commercial users.

Source: National Utility Service Inc.

according to the *Site Selection* survey) are combining environmentalism and economic development, offering businesses special incentives to increase their energy efficiency.

For instance, the Wisconsin Electric Power Co. and the Wisconsin Natural Gas Co. have created a new program called "Fast-Track Financing." The program, aimed at helping businesses finance energy-related improvements, offers assistance with:

- electric or natural-gas projects,
- electric substation installations and other service-related projects,
- environmental projects,
- comprehensive power-quality projects and
- other energy related projects.

Public Service Co. of Colorado's "Efficiency Replacement Partnership" has similar goals. The utility is offering $7.9 million in rebates for commercial and industrial customers who replace worn-out or failed equipment with energy-efficient alternatives.

"To remain competitive in today's market, customers need to look at how energy-efficiency can pay off and contribute to the bottom line," Program Manager Tom Carter says. "Through the program we plan to help remove the cost barriers that currently limit businesses from achieving greater success through energy-efficient technologies."

And Georgia Power Co. is offering both rebates to small businesses that invest in energy-efficient equipment and 100 percent financing to larger users who install efficient lighting systems. The program also offers 100 percent financing to builders and developers to choose efficient equipment in new construction. *SS*

Cold Fusion: Fuel of the Future?

Five years ago, professors Martin Fleischmann and Stanley Pons created a huge furor in the scientific community with the claim that they had discovered cold fusion, that they had tapped the power of the stars in a test tube.

Media around the world speculated on the tremendous impact of the discovery — practically free energy from water. But the flurry of commentary quickly subsided as most scientists rejected the notion, saying cold fusion was theoretically impossible.

It didn't help Fleischmann and Pons' case when they couldn't explain how the alleged discovery worked, either.

While the brouhaha subsided, though, experiments on this controversial new energy source did not. A cadre of researchers essentially went "underground" with their work, financed by giant multinational companies such as Toyota.

Today, they claim significant advances in cold fusion, reportedly generating thousands of watts of energy from water with no pollution and only minor nuclear wastes. Cold-fusion boosters are predicting working automobile engines by the end of this century, the demise of big oil companies and the birth of a new trillion-dollar industry.

The accuracy of such claims remains to be seen — large numbers of scientists still discount even the possibility of cold fusion and even more doubt the conclusions of pro-cold-fusion researchers.

But as Mark Twain said: "Apparently there is nothing that cannot happen today."

— Hoyt E. Coffee

Fax-on-Demand: Utilities Use High-Tech Information Service for Site Seekers

Public utilities play a major role in economic development, and an important part of that role is providing information to corporate site seekers.

Among utilities with active programs for gathering, packaging and distributing site information, most agree that their primary goal is to provide the different kinds of information needed during the different phases of a site search, quickly and efficiently.

The level of detail site seekers need varies considerably during the selection process. In the latter phases, site seekers are generally working from a short list of possible sites selected either in-house or with a consultant's help. By this time decision-makers have already contacted local utilities, some of which employ extensive resources such as industry experts, geographic information systems and computer models on behalf of their prospects.

Central and South West, a public utility holding company that owns Central Power & Light, Public Service Co. of Oklahoma, Southwestern Electric Power Co. and West Texas Utilities, is no exception.

"We serve over 4 million people in a widely diversified area covering 152,000 square miles (393,680 sq. km.) in four states," says David Young, Central and South West's economic development director. "These companies are represented by economic development staffs professionally trained to assist businesses in the evaluation of opportunities in this region."

This can create problems during the early stages of a search, as Young explains.

"Development officials are trained and dedicated to aggressively pursue all opportunities right from the start," he says. "Early on, this can create a situation where follow-up is difficult. Both the sender and receiver of information may get uncomfortable with the appropriate next step."

The information needed at this stage typically is less detailed and broader in scope than that required in later phases of a site search. Decision-makers want to gather concise information quickly, preferably while remaining anonymous. The ideal solution would be "one-stop information shopping" for all locations under consideration — practically impossible with traditional information-gathering methods.

But by using a new fax-on-demand information service such as GeoFax, which is geared to the development industry, Young says his company has found another method to help site seekers negotiate the preliminary information-gathering phase.

Corporate site seekers can call GeoFax and anonymously order a wide variety of real estate-related documents with a touch-tone phone. The documents are delivered immediately to the caller's fax machine.

" 'Information Libraries' such as GeoFax can be used in the initial stages of the screening process, providing a valuable, anonymous service," Young says. "In the early stages of the site-selection process, the Central and South West Companies want to be represented with up-to-date, factual information. Then, when interest is expressed in a particular asset of our territory, our professional staff will assist in the further evaluation of this opportunity."

An important part of Young's strategy is providing fax-on-demand descriptions of available properties within the utility's service area. Listings are regularly updated as the number and type of available properties change. Maps and floor plans are included to make the site information as useful as possible.

"Nothing will take the place of personal assistance when a prospect takes an interest in a community or region," Young adds. "The economic development business is built on relationships, trust and confidentiality, and that only takes place between professionals."

Central Power & Light, Public Service Co. of Oklahoma, Southwestern Electric Power Co. and West Texas Utilities are joining more than 130 other utilities, governments, professional and industry associations, publications, and service providers that offer information through GeoFax, making it a useful and wide-ranging source of information for the corporate executive. These sponsors pay an annual fee so that site seekers can order their information files at no charge, 24 hours a day, seven days a week.

(For more information on GeoFax, see the Guide to Electronic Services elsewhere in this issue of *Site Selection*.)

OTS Statement No. 3
Date: April 14, 1995

4/25/95 Hbj VK

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PENNSYLVANIA POWER & LIGHT COMPANY

Docket No. R-00943271

Direct Testimony

of

Paul M. Yarolin

Concerning:

Rate Structure

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Paul M. Yarolin and my business address is the North Office Building, P.O. Box 3265, Harrisburg, Pennsylvania 17105-3265.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I earned an Associate Degree in Mechanical Engineering from The Pennsylvania State University in 1963 and a Bachelor of Science Degree in Commerce and Finance from Wilkes College in 1971.

Q. HAVE YOU HAD ANY ADDITIONAL TRAINING WHILE EMPLOYED BY THE COMMISSION?

A. Yes. See attached Appendix A.

Q. HAVE YOU HAD ANY TRAINING OR WORK EXPERIENCE WITH A UTILITY?

A. Yes, from 1972 to 1974, I worked as a Plant Center Manager and an Outside Plant Engineer with Commonwealth Telephone Company. Details are shown in Appendix A under utility experience.

Q. HOW LONG HAVE YOU BEEN EMPLOYED BY THE PENNSYLVANIA PUBLIC UTILITY COMMISSION?

A. I have been employed by the Commission since 1974.

Q. WHAT IS YOUR JOB TITLE?

A. I am a Fixed Utility Valuation Engineer.

Q. WHAT ARE YOUR RESPONSIBILITIES AS A FIXED UTILITY VALUATION ENGINEER?

A. As a Fixed Utility Valuation Engineer in the Rate Structure/Engineering Section, Energy Division of the Office of Trial Staff, I am responsible for the review and analysis of gas and electric rate filings in the areas of valuation, depreciation, cost of service, and rate structure.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?

A. The purpose of my testimony is to address: (a) the minimum monthly charge for residential customers (Rate Schedule RS) proposed by Pennsylvania Power & Light Company (Company); (b) the proposed rates under Residential Service - Thermal Storage (Rate Schedule RTS) and related matters; (c) revenue distribution which is compatible with the

recommended OTS increased revenue requirement or at other revenue requirements; and (d) Rate Schedule SE - an energy only street lighting service.

Q. YOU MENTIONED THE PROPOSED INCREASE IN THE MINIMUM MONTHLY CHARGE FOR RESIDENTIAL CUSTOMERS UNDER RATE SCHEDULE RS. CAN YOU EXPLAIN WHAT THE MINIMUM MONTHLY CHARGE IS AND ITS PURPOSE?

A. The minimum monthly charge (customer charge) is a recurring charge independent of the quantity of energy (KWH) used. Its purpose is to recover customer related cost such as meter reading, billing, collecting, accounting, metering equipment and service connections. These costs will vary directly with the number of customers served.

Q. WHAT IS THE PRESENT RESIDENTIAL MINIMUM MONTHLY CHARGE AND WHAT CHARGE DOES THE COMPANY PROPOSE IN THIS RATE FILING?

A. The present residential minimum monthly charge under Rate Schedule RS is $4.80. The Company proposes to increase this charge to $7.20 per month or by 50 percent.

Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL TO INCREASE THE MINIMUM MONTHLY CHARGE FROM $4.80 TO $7.20?

A. No. A one-time increase of $2.40 or 50 percent in the minimum monthly charge would be excessive. I believe that a gradual increase for the residential customer would be more appropriate.

Q. WHAT MINIMUM MONTHLY CHARGE WOULD YOU RECOMMEND FOR RESIDENTIAL CUSTOMERS SERVED UNDER RATE SCHEDULE RS?

A. I recommend that the minimum monthly charge be increased by $1.10 to $5.90 per month. This amounts to an approximate increase of 23 per cent. In addition, I have reviewed the current minimum charges for the other Pennsylvania electric utilities. This review demonstrates that the OTS recommended $5.90 minimum monthly charge falls within the range of

other Pennsylvania electric utilities. These minimum charges are presented at Schedule 1, OTS Exhibit No. 3.

Q. WHAT WOULD BE THE REVENUE INCREASE RESULTING FROM CHANGING THE MINIMUM CHARGE FROM $4.80 PER MONTH TO $5.90 PER MONTH?

A. The revenue increase resulting from changing the minimum charge for ~~1,066,000~~ 1,066,365 residential customers from $4.80 per month to $5.90 per month would be approximately ~~$14,071,000~~ $14,076,018 (~~1,066,000~~ 1,066,365 x $1.10 x 12).

Q. YOU ALSO MENTIONED THE PROPOSED RATES FOR RESIDENTIAL SERVICE - THERMAL STORAGE (RATE SCHEDULE RTS) REQUESTED BY THE COMPANY. FIRST OF ALL, CAN YOU PROVIDE A SHORT DESCRIPTION OF RESIDENTIAL THERMAL STORAGE?

A. Yes. Rate Schedule RTS is a time-of-day type of service currently serving 14,544 residential customers which permits customers to manage their usage during off-peak periods. The rate is designed to provide an incentive for customers to install time-of-day metering and electric thermal storage space conditioning equipment. The customer has the

option of choosing on-peak hours of 7 A.M. to 5 P.M., 8 A.M. to 6 P.M., or 9 A.M. to 7 P.M. The customer will be charged for any demand in excess of the 2 KW allowed during the on-peak period.

Q. WHAT ARE THE PRESENT AND COMPANY PROPOSED RATES FOR RESIDENTIAL THERMAL STORAGE (RATE SCHEDULE RTS)?

A. The monthly minimum charge is $10.95 and would be increased to $15.00 per month. For any excess demand beyond the first 2 KW, the charge would increase from $5.80 per KW to $6.50 per KW. The energy usage block would increase from 2.84 cents per KWH to 4.5 cents per KWH.

Q. AT WHAT LEVEL DO YOU RECOMMEND RATE SCHEDULE RTS RATES BE SET?

A. I recommend that the rates under Rate Schedule RTS be set at the same level proposed by the Company.

Q. DO YOU RECOMMEND THAT RATE SCHEDULE RTS RATES BE ADJUSTED IF THE COMPANY IS GRANTED A REVENUE REQUIREMENT LESS THAN THAT REQUESTED?

A. No.

Q. WHY HAVE YOU ACCEPTED THE COMPANY PROPOSED INCREASE FOR THIS RATE SCHEDULE?

A. Based upon the Company's Exhibit OGK-3, now labeled as OTS Exhibit No. 3, Schedule 2, the rate of return for Residential Thermal Storage (Rate RTS) under present rates is -2.36%. Under the Company's proposed rates, the rate of return would change to -.43%. Because of the negative rate of return, an increase in this service is warranted. It would be unfair to other customers not to increase the rates for this service to the proposed level since the RTS customers are not providing sufficient revenues to cover the cost of providing service.

Q. WHAT WILL BE THE REVENUE INCREASE IF RESIDENTIAL THERMAL STORAGE IS INCREASED TO THE COMPANY'S PROPOSED LEVEL?

A. The revenue increase would be $3,438,666.

Q. WHAT IS THE COMPANY'S PROPOSED INCREASED ANNUAL REVENUE REQUIREMENT AND WHAT RATE SCHEDULES HAVE BEEN INCREASED TO OBTAIN THIS ANNUAL REVENUE REQUIREMENT?

A. The Company's proposed increased revenue requirement or revenue increase from tariff changes would be $257,925,888. Following is a list of Rate Schedules and proposed annual revenue increases applicable to each rate schedule:

Rate Schedule	Proposed Revenue Increase
RS (Residential Service)	$135,568,845
RTS (Residential Service Thermal Storage)	3,438,666
RTD (Residential Service Time-of Day)	52,375
GS-1 (Small General Service)	6,260,887
GS-3 (Large General Service)	34,096,022
LP-4 (Large General Service at 12,470 volts or higher)	27,783,995
LP-5 (Large General Service at 69,000 volts or higher)	40,109,429
LPEP (Power Service to Electric Propulsion)	462,706

ISA (Interruptible Service by Agreement)	31,640
IS-1 (Interruptible Service - Greenhouses)	3,437
BL (Borderline Service - Electric Service)	43,427
SA (Private Area Lighting)	574,728
SM (Mercury Vapor Street Lighting)	221,375
SHS (High Pressure Sodium Street Lighting)	2,136,723
SE (Energy Only Street Lighting Service)	71,054
TS(R) (Municipal Traffic Signal Service - Restricted)	7,224
SI-1(R) (Municipal Street Lighting - Restricted)	13,849
GH-1(R) (Single Meter Commercial Space Heating Service)	5,823,541
GH-2(R) (Separate Meter General Space Heating Service)	1,218,083
Standby (Standby Service for Qualifying Facilities)	7,881
TOTAL TARIFF REVENUE INCREASE	$257,925,888
TOTAL OPERATING REVENUE INCREASE	$261,634,767

Q. WHAT IS THE OTS RECOMMENDED INCREASED REVENUE REQUIREMENT?

A. The OTS recommended revenue requirement increase is approximately $17,443,000.

Q. WHAT TARIFF RATES DO YOU RECOMMEND BE INCREASED TO OBTAIN THIS REVENUE LEVEL?

A. As I have stated previously, I recommend that the minimum monthly charge for residential customers (Rate Schedule RS) be increased by ~~$14,071,000~~ $14,076,018 and that Residential Service - Thermal Storage (Rate Schedule RTS) be increased by $3,438,666.

Q. IF THE COMPANY WERE TO BE GRANTED A REVENUE REQUIREMENT IN EXCESS OF THAT RECOMMENDED BY OTS, WHAT WOULD BE YOUR RECOMMENDATION?

A. If the revenue requirement granted to the Company exceeds that proposed by the OTS, I recommend that:

(a) The minimum charge for Rate Schedule RS should be set as I previously recommended.

(b) The rates under Rate Schedule RTS should be set, as I previously recommended, at the level proposed by the Company.

(c) The remaining balance of the revenue requirement be distributed among all rate schedules, except Rate Schedule RTS, in the same relationship as that proposed by the Company.

Q. DO YOU HAVE ANY FURTHER COMMENTS CONCERNING RATE SCHEDULE RTS?

A. Yes. Although I have recommended that Residential Service - Thermal Storage (Rate Schedule RTS) receive the increase proposed by PP&L even if an increase of less than the full amount is granted, I am concerned that some of these customers may have been induced to commit to the service with overly optimistic promises of lower rates when compared to Rate Schedule RS (Residential Service). Some RTS customers, at the recent Public Input Hearings, have the apparent perception that the Company's calculation of their proposed increase is incorrect (Public Input Tr. 125). Also, some customers have a concern with the period of time they would experience lower charges when compared with Rate Schedule RS (Residential Service). In addition, their testimony further indicates that these customers made a sizeable investment in equipment in

order to take advantage of the Residential Thermal Service offering (Public Input Tr. 115).

I am particularly concerned about the relatively new RTS customers who have made a large investment in equipment with an understanding that they would realize significant savings when compared with Rate Schedule RS. After making this investment, these customers are now being informed that the rates would be increased. This result may be unfair.

With Rate RTS showing a negative return under present and proposed rates as shown on OTS Exhibit No. 3, Schedule 2, a question is raised as to whether the economic benefits to the Company are adequate. For these reasons, I recommend that the Commission institute an investigation of this matter to determine whether these service offerings were made with inflated promises to attract customers. Among the questions which need to be answered are: (1) What, if any, promises were made to these customers?; (2) Under what conditions were any such promises made?; (3) Whether any savings were promised over a specific time period? and, (4) Whether representations were made as to how long it would take to recover the investment required to obtain RTS service?

Q. PLEASE DESCRIBE RATE SCHEDULE SE.

A. Rate Schedule SE is an energy only street lighting service that currently serves 58 customers. Rate Schedule SE is available only to municipalities or other governmental agencies for the operation of mercury vapor, high pressure sodium, or metal halide street lighting systems in public areas. These public areas include streets, highways, bridges and parks. The installation, ownership, operation and maintenance of the street lighting equipment is provided by the municipality or governmental agency. In the present and proposed tariffs, the Company has two rates. The first rate involves the municipality's lighting equipment on the Company's pole. This rate has a current charge of 6.9361 cents per KWH and would be increased to 9.50 cents per KWH. The second rate applies to those municipalities who own the lighting equipment and the pole. Under the Company's proposal, the rate would increase from the current 2.5258 cents per KWH to 4.30 cents per KWH.

Q. IS THIS SERVICE METERED?

A. No. The usage is calculated by multiplying the wattage for a given street lamp by 4,300 hours per year.

Q. DO YOU HAVE A RECOMMENDATION CONCERNING THIS TARIFF?

A. Yes. I recommend Rate Schedule SE be considered an off-peak rate for municipalities and governmental agencies.

Q. WHY DO YOU THINK IT WOULD BE APPROPRIATE TO ESTABLISH RATE SCHEDULE SE (ENERGY ONLY STREET LIGHTING) AS AN OFF-PEAK RATE?

A. The conversion of Rate Schedule SE to an off-peak rate is appropriate for several reasons. The first reason is that street lighting is used mostly during off-peak periods. The Company has provided twelve months of system peaks in response to OTS-RS-31D, which is now labeled as Schedule 3 of OTS Exhibit No. 3. From April through October, the peak periods occurred during daylight hours where street lighting would not be necessary. For the remaining five months, the peak periods occurred during the hours when street lighting was necessary.

The second reason involves the ownership of equipment utilized to provide the service. For example, the proposed increase is 37% in the energy charge in those cases where the municipality owns the street lighting equipment and the Company owns the pole. Where the

municipality owns both the street lighting equipment and the pole, the Company proposes to increase the energy charge by 70%, which can place a financial strain on a given community. The total revenue percentage change for Rate Schedule SE after the proposed ECR and Base Rate Credit Adjustment have been included would be 20.49%. Finally, since street lighting is a community service, all customer classes benefit directly or indirectly from this service.

Q. WHAT IS YOUR RECOMMENDATION CONCERNING RATE SCHEDULE SE, ENERGY ONLY STREET LIGHTING SERVICE?

A. Since most of street lighting takes place during off-peak periods, and does not contribute any significant amount to the system peak, I believe the SE rate should be considered an off-peak rate and be priced accordingly. Therefore, I recommend that the Company be instructed to file a tariff with the Commission which establishes Rate Schedule SE, Energy Only Street Lighting Service as an off-peak rate. Consequently, Rate Schedule SE should not get any increase in rates in this proceeding.

Q. CAN YOU SUMMARIZE YOUR RECOMMENDATIONS?

A. Yes, a summary of my recommendations are as follows:

(1) that the minimum charge listed in Rate Schedule RS be increased from its current $4.80 per month to $5.90 per month.

(2) that the rates proposed by the Company for Rate Schedule RTS (Residential Service - Thermal Storage) be increased as proposed.

(3) that for any revenue requirement granted to the Company which exceeds that proposed by the OTS, the minimum monthly charge in Rate Schedule RS be set at $5.90. For Rate Schedule RTS, rates should be set at the Company proposed level. However, for the remaining rate schedules, OTS recommends that rates in the various rate schedules and the revenue relationship between the rate schedules be tailored to mirror the Company's original rate proposal.

(4) that the Commission institute an investigation to determine whether RTS customers were improperly induced to purchase the service.

(5) that the Company be instructed to file a tariff with the Commission which establishes Rate Schedule SE, Energy Only Street Lighting Service as an off-peak rate and maintains the existing level of rates.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

Appendix A

PAUL M. YAROLIN

Training and Experience

Training:

In September of 1975, I participated in a program at Western Michigan University entitled Fundamentals of Depreciation.

In 1976, I completed the Pennsylvania State University Continuing Education course on the Physical Functioning of Public Utility Equipment.

In July 1976, I attended the Depreciation Training Program at Western Michigan University entitled Fundamentals of Life and Salvage Estimation.

In February 1977, I attended a Symposium at the University of Missouri involving rate design problems of regulated industries.

In September 1978, I attended a seminar sponsored by the Bell's Center for Technical Education at Des Plaines, Illinois, on Cost for Pricing Decisions with an emphasis on incremental analysis.

In December 1983, I attended a Telecommunications Conference in Williamsburg, Virginia, concerning Regulation, Markets, and Technology and its impact on public utility pricing.

Professional Affiliation:

Member and past Second Vice President for the Engineers Society of Pennsylvania.

Rate Case Witness Experience:

I have appeared before the Pennsylvania Public Utility Commission as a witness in the General Telephone Company of Pennsylvania general rate filings at Docket Numbers R-79100962 and R-811512; The Bell Telephone Company of Pennsylvania general rate filings at Docket Numbers R-80061235; R-811819, and R-841779; Continental Telephone Company of Pennsylvania at Docket Numbers R-850044 and R-850083; Quaker State Telephone Company at Docket Number R-850045; Mahanoy and Mahantango Telephone Company at Docket Number R-870590; Western Pennsylvania

Water Company at Docket Number R-870825; Pennsylvania Gas and Water Company at Docket Number R-870853; Pennsylvania American Water Company at Docket Number R-880916; Philadelphia Electric Company at Docket Number R-881089; Dauphin Consolidated Water Company at Docket Number R-891259; T.W. Phillips Gas and Oil Company at Docket Number R-911889; Columbia Gas of Pennsylvania, Inc. at Docket Number R-910873; Dauphin Consolidated Water Supply Company at Docket Number R-912000; The Peoples Natural Gas Company at Docket Number R-922206; Dauphin Consolidated Water Supply Company at Docket Number R-932604; National Fuel Gas Distribution Corporation at Docket Number R-00932548 and Pennsylvania American Water Company at Docket Number R-00932548.

OTS Exhibit No. 3
Date: April 14, 1995

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

PENNSYLVANIA POWER & LIGHT COMPANY

Docket No. R-00943271

Exhibit to Accompany

the

Direct Testimony

of

Paul M. Yarolin

Concerning:

Rate Structure

Exhibit No. 3
Schedule 1

ELECTRIC UTILITIES
MINIMUM CHARGE RATE COMPARISON
(CUSTOMER CHARGE)

Company	Rate Schedule	Customer Monthly Charge
Citizens Electric Co. of Lewisburg	RS	$3.57
Duquesne Light Company	RS	$6.42
PECO Electric Company	R	$5.12
Pennsylvania Electric Company	RS	$6.83
Pennsylvania Power Company	RS	$8.95
Pike County Power & Light Company	1	$5.21
UGI Utilities Inc. Electric Division	R	$4.23
West Penn Power Company	10	$5.00
Wellsboro Electric Company	RS	$5.52
Metropolitan Edison Company	RS	$6.67
PP&L existing rate	RS	$4.80
PP&L proposed rate	RS	$7.20
PP&L (OTS proposed rate)	RS	$5.90

Exhibit No. 3
Schedule 2

PRESENT AND PROPOSED RATE OF RETURN COMPARISON

Rate Schedule	Present Rate of Return	Percent of System Rate of Return	Proposed Rate of Return	Percent of Proposed Rate of Return
RS	5.84%	79.89%	9.13%	89.77%
RTS	-2.36%	-32.28%	-0.43%	-4.23%
GS-1	14.41%	197.13%	15.64%	153.79%
GS-3	9.93%	135.84%	11.73%	115.34%
LP-4	8.96%	122.57%	11.87%	116.72%
LP-5	5.34%	73.05%	10.00%	98.33%
LPEP	8.09%	110.67%	9.65%	94.89%
ISA	0.79%	10.81%	0.82%	8.06%
SL/AL	4.72%	64.57%	6.66%	65.49%
GH(R)	5.75%	78.66%	9.00%	88.50%
Standby	24.58%	336.25%	24.85%	244.35%
System	7.31%	100.00%	10.17%	100.00%

J. J. Slivka

Pennsylvania Power & Light Company
Response to Interrogatories of
the Office of Trial Staff
Dated January 13, 1995
Docket No. R-00943271

Q.OTS-RS-31D. In Statement 6 (Slivka), page 8, line 2, the twelve coincident peak (12 CP) allocation methodology is mentioned. Describe this methodology along with the data and its utilization in determining the demand for each customer class.

A.OTS-RS-31D. The 12 CP allocation methodology is as stated in Statement 6 (Slivka), page 8, line 2 "Each rate class contribution to each of the 12 monthly system peaks is averaged to calculate the 12 Coincident Peak (12 CP) demand allocator for that class." The data that is used in this computation is as stated in Statement 6 (Slivka), page 7, line 18 through page 8, line 2. Attachment 1 contains the data by rate class for each month of the 12 month period ended September 30, 1994 and the computed 12 Coincident Peak allocator.

Pennsylvania Power and Light Company
Contributions to Monthly System Peaks
Generation Level - In KW
Year Ended September 30, 1994

	12 Month Average	14-Oct-93 1000	1-Nov-93 1900	29-Dec-93 1800	18-Jan-94 1900	2-Feb-94 800	2-Mar-94 1900
RS	2,016,144	1,420,771	2,085,239	2,859,449	3,147,834	2,718,675	2,717,380
RTS	97,047	17,930	145,053	239,246	257,775	54,638	218,542
GS-1	235,744	204,180	166,506	255,558	233,183	239,908	199,901
GS-3	1,120,665	1,133,376	909,008	955,976	944,101	1,143,503	821,089
LP-4	666,849	641,391	568,428	554,184	584,064	686,839	569,289
LP-5	719,064	718,000	702,426	613,217	629,173	693,374	638,957
LPEP	24,063	19,939	27,766	25,692	17,384	29,498	32,551
ISA	58,066	100,443	64,555	12,640	63,107	71,999	55,141
GH	120,614	115,081	91,053	144,933	158,325	218,751	120,337
St./Area Ltg.	9,568	62	26,454	26,429	26,567	8,450	26,479
Standby	2,106	257	1,430	411	14,066	0	0
PPUC	5,069,930	4,371,430	4,807,920	5,687,735	6,075,629	5,883,635	5,399,648

	8-Apr-94 800	23-May-94 1800	14-Jun-94 1400	20-Jul-94 1800	4-Aug-94 1600	14-Sep-94 1200
RS	1,777,868	1,074,054	1,570,602	2,197,204	1,888,711	957,936
RTS	38,030	18,884	35,881	85,719	37,047	15,824
GS-1	188,553	241,878	309,714	273,085	313,749	222,717
GS-3	962,817	1,237,269	1,510,307	1,122,400	1,328,137	1,380,021
LP-4	626,155	681,160	818,433	733,245	764,943	752,033
LP-5	717,157	734,268	824,848	791,650	794,483	771,198
LPEP	33,260	16,431	33,265	24,438	22,550	5,976
ISA	62,439	71,782	24,179	65,152	51,829	53,523
GH	126,838	87,482	120,054	69,267	89,111	108,139
St./Area Ltg.	62	62	62	62	62	62
Standby	0	0	8,655	0	421	0
PPUC	4,513,179	4,163,268	5,255,998	5,362,222	5,071,052	4,267,429

OSBA Statement No. 1

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
v.	:	Docket No. R-00943271
PENNSYLVANIA POWER & LIGHT COMPANY	:	

Direct Testimony and Exhibit of
ROBERT D. KNECHT

On Behalf of the
Office of Small Business Advocate

Date Served: April 12, 1995

Date Submitted for the Record: 4/25/95
Hbg DC

DIRECT TESTIMONY OF ROBERT D. KNECHT

Q. Please state your name and briefly describe your qualifications.

A. My name is Robert D. Knecht. I am a Principal of Industrial Economics, Incorporated (IEc), an economics and policy consulting firm located in Cambridge, Massachusetts. I specialize in applying economics and management theory to practical business problems, primarily in the mining, metals and energy industries. My *curriculum vitae* is attached as Appendix A. My consulting practice includes the analysis of the economics of regulated utilities, focusing on the areas of cost allocation and rate design. A list of my appearances before regulatory boards is included in Appendix A.

Q. Please describe the work you were asked to perform in respect to the extant proceedings.

A. I was asked by the Pennsylvania Office of the Small Business Advocate (OSBA) to review and analyze the evidence filed by Pennsylvania Power & Light Company (PP&L), focusing primarily on the proposals for cost allocation methods, the recovery of the revenue requirement from each of the rate classes, and the proposed rate design.

Q. Please summarize your conclusions.

A. 1) For the purposes of this testimony, the small business classes are deemed to be the GS-1 and GS-3 classes. Some smaller GS-1 customers are probably not small businesses.

Many of the customers in the "grandfathered" GH classes are probably also small businesses.

2) PP&L's proposal for recovering the revenue requirement in these proceedings, and its proposal for a Small Business Program, indicates that PP&L, to its credit, has begun to recognize the oft-overlooked importance of small businesses to the community and the local economy.

3) The constraints imposed by the gradualism principle of rate design preclude PP&L from fully rectifying a huge imbalance between GS-1 revenues and costs, in its proposal for the revenue requirement distribution. In light of PP&L's stated objective to defer future base rate cases, an automatic annual rate adjustment mechanism should be implemented to continue progress toward cost-based rates, for those classes whose revenues and costs are significantly out of balance.

4) In the event that PP&L's proposed revenue deficiency[1] is reduced from $260 million, the traditional proportional scaleback approach should not be adopted, because progress toward cost-based rates may be substantially reduced. I propose that a "weighted scaleback" approach be adopted, tempered by the judgment of the Commission with regard to requiring each class to contribute some minimum amount to the deficiency.

[1] Revenue deficiency is defined as the difference between the total revenue requirement and the revenue generated by present rates.

Q. Mr. Knecht, please describe the typical treatment of small business customers in utility regulatory proceedings.

A. For a variety of reasons unrelated to cost of service, small business customer classes often exhibit higher per kWh rates than the residential classes for comparable service. Also, it is common for the small business classes to exhibit higher indexed rates of return[2] than the other major classes.

Q. Do the PP&L GS-1 rates fit into this pattern?

A. Yes. First, Exhibit 1 compares the monthly bills paid by average RS and GS-1 customers under RS service and GS-1 service, for both present and proposed rates. As shown, even after PP&L's proposal for a substantially larger increase to the RS class, the GS-1 service is some 20% more expensive than RS service.[3] Moreover, these differences are not justified by cost of service differences. Exhibit 2 compares allocated costs and the major causal factors for cost incurrence between GS-1 and RS customers. Mr. Kasper implied that the higher cost of demand meters for the GS-1 class contributed to the higher rates for the class.[4] As shown in Exhibit 2, the average customer cost per customer in the GS-1 class is slightly higher than for RS service, reflecting the higher per-customer meters and services cost. This amount, however,

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[2] Indexed rate of return is the ratio of the class rate of return to the system average rate of return, and is also called relative rate of return. The statement in the text is equally valid for the revenue to cost ratio metric, which is a better measure of relative class contribution, although it is not generally used in this jurisdiction.

[3] Although Exhibit 1 represents only two examples, GS-1 customers pay substantially higher rates that RS customers under a wide variety of loads and load factors.

[4] Transcript page 740, lines 2-6.

is outweighed by the larger size of the average GS-1 customer, and the higher average load factors for the GS-1 class. Overall, PP&L's cost allocation study indicates that the GS-1 allocated cost per kWh is lower than that of the residential class.[5] The higher rates combined with the lower costs produce an indexed rate of return for the GS-1 class under present rates of 197%, the highest of any of the major rate classes.

Q. Is PP&L cognizant of this situation?

A. Yes. In its November 1994 report, PP&L's Social Initiatives Task Force states the following:

> *"**Need** -- The small business customer (e.g., mom-and-pop stores) is the forgotten customer at PP&L. There are nearly 120,000 small general service customers and, as a group, they pay the highest electric rates. In addition, they receive the least amount of customer service and support from the company. These customers often play a role in maintaining the viability of the neighborhoods where they are located."*[6]

PP&L has proposed to adopt a Small Business Program to assist the small commercial customers in a variety of areas. It also has proposed that the GS-1 class be assigned a rate increase somewhat lower than system average in these proceedings.

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[5] The figures shown in Exhibit 2 use the results of PP&L's study at levelized rates of return. Under PP&L's "actual rate of return" cost allocation methodology, the unit costs associated with various revenue-related and income taxes allocated to the GS-1 class are higher than those of the RS class. The levelized rate of return methodology, however, is a more accurate reflection of cost causality, because it assigns income taxes to those classes that require the investment upon which the income is earned. Note that any unit cost differential between RS and GS-1 classes for income and other taxes would virtually disappear if both classes recovered their actual cost in rates, implying that there is no real cost differential for these accounts.

[6] OTS Cross Examination Exhibit No. 16, Attachment 1, page 10.

Q. Do GS-3 rates follow the general pattern you outlined?

A. Yes. The indexed rate of return for GS-3 customers under present rates is 136%, the second highest of any of the major classes. Moreover, the demand cost allocation scheme utilized by PP&L, namely 12 CP, allocates more costs to the GS-3 class than any other demand allocation scheme for which data have been presented.[7] While this issue may be extensively debated in these proceedings, any change in the proposed allocator will almost certainly reduce costs allocated to the GS-3 class, increasing the indexed rate of return for the class.

Q. Does the PP&L proposal ameliorate this inequity?

A. Partially. The proposed rate increase for the GS-1 class will reduce the indexed rate of return to 154% from 197%, while the increase for the GS-3 class will reduce the indexed rate of return from 136% to 115%.[8] PP&L explicitly recognizes that any further progress in these proceedings is constrained by the gradualism principle of rate design.[9]

Q. Is this progress sufficient for these proceedings?

A. If PP&L were expected to appear in the next year or two to continue this progress, I would say yes. My concern is that

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[7] This conclusion applies to the 1 CP, multiple CP's, weighted 12 CP, average-and-excess, peak-and-average, or even simply energy.

[8] Note that movement of the indexed rate of return toward unity does not necessarily imply true progress toward cost-based rates. Using more neutral methods, the GS classes also exhibit progress toward cost-based rates. My citing of the indexed rate of return measure herein should not be construed as acceptance of this metric -- I cite it because of its widespread use in this jurisdiction.

[9] Transcript page 741-2.

PP&L has elevated the "rate stability" criterion for rate design above all other criteria, including costs. Mr. Hill states:

> *"Our general ratemaking approach to ratemaking over the past ten years has been based on two objectives. The first is to maintain rate stability. . . . Our second ratemaking objective has been to pass through to customers the rate impacts of certain non-recurring cost savings occurring since our last rate case." (Statement 1, page 3).*

Rate stability becomes a more important rate design criterion, when rates are reasonably in line with costs. If rates are out of line with costs, rate stability simply perpetuates inequity. In addition, PP&L has "front-loaded" certain costs into its revenue requirement, for the express purpose of deferring future rate proceedings.[10] In this light, I do not believe that the proposed progress for the GS-1 class is sufficient.

Q. Are you proposing that PP&L be required to appear in a base rate proceeding more often?

A. No. Because the GS-1 class is so far out of line with costs, however, I propose that an annual automatic rate adjustment mechanism be established, reducing rates to this class on each anniversary of the effective date of the newly approved rates. I recommend that the energy charges in the GS-1 tariff be reduced by 2 mills per kWh at each adjustment, a reduction of some $2.8 million per year or about 1.6% for the average GS-1

[10] See, for example, Mr. Hoch's proposal to modify the depreciation schedule for the Susquehanna nuclear units for the next five years, increasing the test year depreciation costs. Mr. Hoch states, "Elimination of these substantial cost increases should enable the Company to minimize future base rate increase requests which otherwise could be necessary." (Statement 4, page 15)

customer. At this rate, I estimate that it would take more than ten annual adjustments to bring the GS-1 class down to a system average rate of return. When contrasted to PP&L's general plan for another base rate proceeding in three years,[11] I believe that this proposal will allow for modest continued progress until the next full base rate proceeding.

Q. How do you propose that PP&L recover the $2.8 million per year reduction?

A. I recommend that this shortfall be recovered through annual adjustments in the kWh charges to those classes that are substantially under-contributing at the proposed rates, namely RS, RTS, and the GH classes.[12] For simplicity, I recommend a constant per kWh adjustment be applied to each of these tariffs. I estimate the annual adjustment necessary for each of these classes to be about .24 mills per kWh per year. For basic RS service, this proposal implies an annual increase of about .25%.

Q. Suppose that the Commission approves a general methodology for recovering the revenue requirement between the various classes based on the $260 million deficiency proposed by PP&L, but the Commission also reduces the revenue requirement. Can you

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[11] Transcript, page 427, lines 6-7.

[12] I have excluded the SL/AL classes from this adjustment for simplicity, despite the substantial under-recovery of costs from this class. Including the SL/AL class would have a de minimis impact on the magnitude of the proposed adjustment.

comment on the methodology for recovering the revised revenue requirement?

A. Ideally, the best approach for reallocating a reduced (or increased) revenue requirement would be to start with a new cost allocation study based on the revised test year cost forecast (incorporating any methodological changes ordered by the Commission), and develop a revised rate design. This procedure is particularly necessary in the event of substantial changes to the deficiency. Significant changes in the allowable costs can have substantial inter-class cost allocation impacts. For example, a reduction in the approved rate of return produces a greater relative cost reduction for the residential and commercial classes than for the industrial classes, due to the fairly large component of the rate base invested in low voltage distribution equipment, meters, service drops, etc.

Because this ideal approach is, at best, impractical, utilities and analysts often propose a proportional scaleback of an approved "deficiency allocation" methodology. In this method, the absolute dollar increase assigned to each class is reduced by the same proportion as the reduction in the overall deficiency. The disadvantage of this approach is that, particularly in cases of significant reductions in the deficiency, the progress toward cost-based rates embedded in the proposal is substantially diminished. Exhibit 3 depicts a simple example of this reduction in progress from the proportional scaleback approach.

Q. Is there a better approach for maintaining progress toward cost based rates?

A. Yes, but these methods can have practical drawbacks. A simple approach is to use a constant differential approach, wherein the difference between the class rate of return and the system average rate of return in the approved deficiency allocation is modified by the change in the overall allowed increase. Exhibit 3 presents a simple, two-class example of the implications of the different methods. In this example, the Commission approves a method that assigns a 15 percent increase to the residential class, for an overall proposed deficiency that requires a 10 percent average increase. By removing some rate base and O&M costs from the deficiency, and lowering the allowed rate of return, the system increase is reduced to 2.5 percent. Under proportional scaleback, the residential class would be assigned a 3.8% increase, while under the constant differential method, the residential class increase would be 7.5%. As shown in Exhibit 3, the proportional scaleback approach produces very little progress toward cost-based rates, while the constant differential method produces progress toward cost-based rates that is more similar to the original proposal than the proportional scaleback approach.[13]

Q. What is the drawback to this approach?

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[13] Exhibit 3 depicts both indexed rate of return and revenue to cost ratio measures. For either measure, unity represents cost-based rates.

A. A perceived drawback is that this approach can produce rate decreases for particular classes when the approved method indicated an increase. This phenomenon occurs typically when (a) there is a significant reduction in the proposed deficiency, and/or (b) there are classes that were awarded relatively small increases in the approved methodology. There is, of course, no theoretical reason why some rate classes should not experience rate declines when the utility, on average, requires an increase. For non-economic reasons, however, some Commissions prefer that all rate classes share in a rate increase, if one is necessary.

Q. Has PP&L made a proposal for allocating a modified deficiency?

A. Not specifically. PP&L has generally indicated that such a proposal will not be made until the compliance filing.[14] Mr. Kasper has indicated, however, that he intends to maintain an upper limit for any class of 1.5 times the approved system average increase to reflect gradualism.[15] This constraint, in light of the proposed increases to the RS and LP-5 classes, suggests that PP&L will propose something akin to the proportional scaleback method.

Q. Do you agree that the 1.5 factor is necessary to adhere to the principle of gradualism?

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[14] See transcript at page 742 lines 20-25.

[15] Transcript, page 772 line 22 to page 773 line 2.

A. No. The absolute magnitude of the rate increase is what really matters to customers, not the increase relative to other customer classes. It makes no sense to me to say that, a 15.3 percent increase to the RS class does not violate the gradualism principle when the system average increase is 11.7 percent, but that a 4 percent increase does violate gradualism when the system average increase is 2 percent. The 1.5 factor is reasonable for a system increase on the order of 11 or 12 percent. If that overall increase is substantially reduced, the 1.5 factor is no longer appropriate.

Q. Do you have a specific arithmetic proposal for reallocating a reduced deficiency for PP&L?

A. No. There is no obvious way to combine the need for all classes to share in an increase with the goal of maintaining progress toward cost-based rates, without the use of judgment. Exhibit 4 presents the results for PP&L of the two methods discussed above for deficiency reallocation, under various deficiency levels. I have also included a "weighted scaleback" approach, which produces a weighted average deficiency allocation from the two methods, using the percent reduction in the original deficiency as the weight for the proportional scaleback method. For example, the deficiency in the RS class for Case I, a 25% reduction in the overall deficiency, is computed as .25 times the proportional scaleback deficiency of $101.7 million plus .75 times the constant differential deficiency of $109.4 million, producing a deficiency allocation of $107.5 million. This method can

still produce rate reductions for certain classes under certain circumstances, but of a smaller magnitude.

Q. What method are you proposing for PP&L?

A. I recommend that the weighted proportional allocation method be used, excepting the ISA and Standby classes. If circumstances dictate that this method produces negative deficiencies for certain classes, and the Commission orders that all classes contribute to the increase, these classes should then be judgmentally assigned a small increase and the resulting revenues be used to proportionately reduce the deficiencies of the other classes.

Q. Does this conclude your direct testimony?

A. Yes.

APPENDIX A

INDUSTRIAL ECONOMICS, INCORPORATED

ROBERT D. KNECHT
Principal

Robert D. Knecht specializes in the practical application of economics, finance and management science to planning, policy and decision-making issues facing public and private sector clients. Mr. Knecht has more than thirteen years of consulting experience, focusing primarily on the metals, mining and energy industries. He has consulted to industry, law firms, and government clients, both in the U.S. and internationally. He has participated in strategic and business planning studies, project evaluations, litigation and regulatory proceedings and policy analyses. In addition, as a Principal of Industrial Economics, Incorporated (IEc), Mr. Knecht is responsible for administering employee benefits, for managing IEc's computer resources function, and participating in the general management of the firm.

Mr. Knecht's recent assignments include the following projects:

- Mr. Knecht has conducted various studies and prepared expert testimony regarding the cost allocation and rate design procedures of several Ontario natural gas local distribution companies. Mr. Knecht has worked on behalf of the Ontario Energy Board Staff, the Canadian Independent Gas Marketing Association and a small distribution utility.

- For a major South American iron ore mining company, Mr. Knecht assembled and managed an international team of consultants to review and evaluate the company's strategic plan. Mr. Knecht supervised the preparation of conclusions and recommendations in the areas of markets, the resource base, development of the resource, processing operations and finance.

- For the U.S. Environmental Protection Agency, Mr. Knecht managed a study of the impact of Clean Air Act amendments on major industrial facilities that are closing or are threatened with closure. The study focused on assessing the impact of the Act using financial and basic business decision-making criteria.

- For a group of industrial power users, Mr. Knecht provided analysis and litigation support regarding accounting, financial and capacity planning procedures of New Brunswick Power Corporation in a series of regulatory hearings. He also prepared and defended expert testimony regarding cost allocation and rate design.

Mr. Knecht holds a M.S. in Management from the Sloan School of Management at M.I.T., with concentrations in applied economics and finance. He also holds a B.S. in Economics from M.I.T. Prior to joining IEc as a principal in 1989, Mr. Knecht worked for seven years as an economic and management consultant at Marshall Bartlett, Incorporated. He also worked for two years as an economist at Data Resources, Incorporated, and served as a summer intern in the planning department at Gulf Oil.

INDUSTRIAL ECONOMICS, INCORPORATED

ROBERT D. KNECHT
Principal

Economic Consulting

Mr. Knecht applies economics, finance and decision analysis theory to practical problems facing businesses, law firms and government. His assignments include industry and company planning, market forecasting, policy analysis and economic damage assessment. Representative assignments are listed below.

- For EPRI, development of the necessary databases for a computer model that calculates the economic value of environmental externalities associated with numerous electric generating plant options.

- Economic, market and cost analysis for a team of international consultants preparing a restructuring study of the Polish steel industry, in conjunction with the World Bank.

- Economic and policy analysis for a U.S. engineering firm preparing a strategic planning study for the state-owned steel company in Venezuela.

- Econometric analysis of world steel consumption patterns for a major international iron ore producer.

- Litigation support services relating to the business planning activities of a major West Coast construction and fabrication concern, in a fraudulent conveyance lawsuit.

- Review and analysis of direct and rebuttal evidence regarding economic damages to recreational activities, for the U.S. Department of Justice.

- Decision analysis and calculation of economic damages in an ERISA discrimination lawsuit, for a major domestic manufacturing company.

- Financial, econometric and strategic planning analyses for an international engineering firm, engaged in the preparation of a strategic plan for the steel industry of Nigeria.

- Economic analysis and econometric modeling of import behavior in the domestic carbon steel and wire rope markets, for hearings before the U.S. International Trade Commission.

- Financial analysis and damage assessment for a major domestic law firm, in support of a major anti-trust suit involving the potential construction of a coal slurry pipeline.

Economic Consulting (continued)

- Economic analysis of imports of iron ore pellets into the U.S., for a major international iron ore producer.

- Construction of an economic model of domestic metallurgical coke demand, for the U.S. Environmental Protection Agency.

- Econometric analysis of energy demand, by energy type, region and sector, and management of a sectoral supply-demand model of energy production and use.

Regulatory Economics

Mr. Knecht also consults in the field of regulatory economics, focusing primarily on issues of cost allocation and rate design. His clients include consumers, providers and regulators of public utilities. Representative assignments are listed below.

- Review, analysis and expert testimony focusing on cost allocation and rate design issues regarding two Pennsylvania electric utilities, for the Office of the Small Business Advocate.

- Analysis of the cost allocation and rate design procedures of Consumers' Gas, Ltd., for the Canadian Independent Gas Marketing Association.

- Analysis of the cost allocation and rate design procedures of the three major Ontario natural gas utilities, for the staff of the Ontario Energy Board.

- Economic analysis and modelling of U.S. Postal Service proposals for allocation of peak load labor and equipment costs in 1987 and 1990, for the American Newspaper Publishers Association.

- Evaluation of the cost allocation and cost recovery procedures of a domestic telecommunications firm providing aircraft to ground data communications.

- Assessment of alternative methodologies for defining the electric rate classes of Maritime Electric Corporation, for the Prince Edward Island Ministry of Energy and Forestry.

Regulatory Economics (continued)

- Evaluations of the cost allocation and rate design procedures of the Nova Scotia Power Corporation, for a group of interruptible electricity consumers, and subsequently for a large pulp and paper producer.

- Assessment of a proposed class-specific, risk-adjusted rate of return methodology for natural gas distribution utilities, for the staff of the Ontario Energy Board.

- Preparation of rebuttal analysis regarding management prudence in the construction of the River Bend Nuclear Generating Station, for Gulf States Utilities.

Management Consulting

Mr. Knecht also provides management consulting services to various basic industrial clients, focusing primarily on planning and decision-making. Representative assignments are listed below.

- Competitive dynamics analysis of the world iron ore industry and preparation of strategic recommendations for a major South American mining company.

- Task leader in a management audit of a New Jersey natural gas local distribution company.

- Development of a strategic plan and various business plans for a domestic specialized producer of carbon and alloy steel bars.

- Economic analysis and financial modeling of labor and employee benefits costs for a large integrated steel producer. Preparation of recommendations for labor relations and bargaining strategies.

- Analysis for the restructuring of the marketing function of a large domestic manufacturing company, including segmentation analysis, field interviews and competitor comparisons.

- Market survey and analysis of the domestic hot finished seamless steel tube markets, for a U.S. producer.

- Strategic and business plan development for a major Polish steel producer.

ROBERT D. KNECHT

SCHEDULE OF APPEARANCES BEFORE REGULATORY AUTHORITIES

Docket #	Regulatory Board	Utility	Date of Appearance	Client	*Topic of Testimony*
EBRO 488	Ontario Energy Board	Natural Resource Gas Limited	November 1994	Natural Resource Gas Limited	Cost allocation and rate design
1993 General Rate Application	Alberta Public Utilities Board	Alberta Power Limited	November 1994	Independent Power Producers Society of Alberta	Cost allocation and rate design for export transmission service.
R-942986	Pennsylvania Public Utility Commission	West Penn Power Company	August 1994	Pennsylvania Office of the Small Business Advocate	Cost allocation and rate design
R-932862	Pennsylvania Public Utility Commission	UGI Utilities, Inc. (Electric Division)	March 1994	Pennsylvania Office of the Small Business Advocate	Cost allocation and rate design
EBRO 485, Generic Direct Purchase Hearings	Ontario Energy Board	Consumers' Gas Company, Ltd.	August 1993, September 1993.	Canadian Independent Gas Marketing Association	Classification and allocation of marketing and administrative costs.
Cost of Service and Rate Design	Nova Scotia Utility and Review Board	Nova Scotia Power, Inc.	May 1993	Bowater Mersey Paper Company, Ltd.	Classification of bulk power costs, rate design for interruptible service, et al.
Generic Hearing #4	NB Board of Commissioners of Public Utilities	New Brunswick Power Corporation	November 1991	Large Power Users Group	Review of cost allocation and rate design.
EBRO-470	Ontario Energy Board	Union Gas, Ltd.	February 1991	Ontario Energy Board Staff	Cost allocation and rate design, interruptible service and transmission costs, et al.
Rate Area Boundaries Hearings	Prince Edward Island Public Utilities Commission	Maritime Electric Company, Ltd.	February 1991	PEI Department of Energy and Forestry	Customer classification by geographical area.
EBRO-467	Ontario Energy Board	Centra Gas, Ltd.	January 1991	Ontario Energy Board Staff	Cost allocation and rate design, special technology rates, cogen and bypass.
Arbitration Hearings	Arbitrator	ARINC, Inc.	July 1990	ARINC Inc.	Cost allocation and rate design for aircraft to ground data communications service.
EBRO-462	Ontario Energy Board	Union Gas, Ltd.	January 1990	Ontario Energy Board Staff	Seasonal cost allocation study, and allocation of costs to export markets.
NSPC-857	Nova Scotia Board of Commissioners of Public Utilities	Nova Scotia Power Corporation	February 1989	Interruptible industrial customers	Cost allocation and rate design of interruptible electric service.

BEFORE THE

PENNSYLVANIA PUBLIC UTILITY COMMISSION

PENNSYLVANIA PUBLIC UTILITY COMMISSION	:	
v.	:	Docket No. R-00943271
PENNSYLVANIA POWER & LIGHT COMPANY	:	

Exhibits of
ROBERT D. KNECHT

EXHIBIT 1

COMPARISON OF MONTHLY BILLS

MEAN RS CUSTOMER - 895 kWh	Current Rates	Proposed Rates
RS Service		
Customer Charge	$4.80	$7.20
First Block	$16.60	$21.80
Second Block	$44.20	$52.20
Third Block		$7.22
ECR	$9.12	($0.58)
Total Monthly Charge	$74.72	$87.84
GS-1 Service (22.5% load factor)		
Billing Demand (kW)	5.5	5.5
Customer Charge	$6.56	$8.30
Excess kW Demand Charge	$2.64	$1.00
First Block	$79.28	$89.10
Second Block	$4.90	$5.74
ECR	$9.10	($0.60)
Total Monthly Charge	$102.48	$103.54
GS-1 Premium above RS	37.1%	17.9%
(Mills per kWh)	31.0	17.5

MEAN GS-1 CUSTOMER - 1075 kWh		
RS Service		
Customer Charge	$4.80	$7.20
First Block	$16.60	$21.80
Second Block	$55.65	$52.20
Third Block		$20.90
ECR	$10.96	($0.69)
Total Monthly Charge	$88.01	$101.41
GS-1 Service (22.5% load factor)		
Billing Demand (kW)	6.5	6.5
Customer Charge	$6.56	$8.30
Excess kW Demand Charge	$4.40	$3.00
First Block	$93.70	$105.30
Second Block	$7.00	$8.20
ECR	$10.93	($0.72)
Total Monthly Charge	$122.59	$124.08
GS-1 Premium above RS	39.3%	22.4%
(Mills per kWh)	32.2	21.1

1) ECR charge is based on Exhibit Future 1 D-3 pro forma.
2) GS-1 load factor is a typical load factor for demand-metered GS-1 customer.

EXHIBIT 2

COMPARISON OF COST FACTORS

	RS	GS-1
Annual MWh per Customer	10.3	12.7
1 CP Load Factor	44.8%	69.2%
12 CP Load Factor	66.4%	70.6%
NCP Load Factor	40.0%	40.8%
Customer Costs ($/customer)	$210	$239
Customer Costs ($/MWh)	$20.4	$18.8
Demand Costs ($/MWh)	$51.6	$46.4
Energy Costs ($/MWh)	$24.9	$24.9
Allocated Costs ($/MWh)	$96.9	$90.2

Note: Cost data are based on 12 CP Cost of Service Study at proposed rates, levelized rate of return

EXHIBIT 3

ALTERNATIVE DEFICIENCY ALLOCATION METHODS
TWO-CLASS EXAMPLE

	Present Rates			Proposed Rates		
	Residential	Industrial	Total	Residential	Industrial	Total
Base Proposal						
Revenues	100.0	100.0	200.0	115.0	105.0	220.0
Percent Increase				15.0%	5.0%	10.0%
Deficiency Allocation				15.0	5.0	20.0
Allocated Rate Base	500.0	300.0	800.0	500.0	300.0	800.0
Allocated O&M Costs	60.0	40.0	100.0	60.0	40.0	100.0
Rate of Return	8.0%	20.0%	12.5%	11.0%	21.7%	15.0%
Indexed Rate of Return	0.640	1.600		0.733	1.444	
Revenue-Cost Ratio	0.816	1.290		0.852	1.235	
Proportional Scaleback						
Present Revenues	100.0	100.0	200.0	103.8	101.3	205.0
Percent Increase				3.8%	1.3%	2.5%
Deficiency Allocation				3.8	1.3	5.0
Allocated Rate Base	475.0	285.0	760.0	475.0	285.0	760.0
Allocated O&M Costs	57.0	38.0	95.0	57.0	38.0	95.0
Rate of Return	9.1%	21.8%	13.8%	9.8%	22.2%	14.5%
Indexed Rate of Return	0.655	1.575		0.680	1.533	
Revenue-Cost Ratio	0.815	1.292		0.825	1.278	
Constant Differential						
Present Revenues	100.0	100.0	200.0	107.5	97.5	205.0
Percent Increase				7.5%	-2.5%	2.5%
Deficiency Allocation				7.5	(2.5)	5.0
Allocated Rate Base	475.0	285.0	760.0	475.0	285.0	760.0
Allocated O&M Costs	57.0	38.0	95.0	57.0	38.0	95.0
Rate of Return	9.1%	21.8%	13.8%	10.6%	20.9%	14.5%
Indexed Rate of Return	0.655	1.575		0.735	1.442	
Revenue-Cost Ratio	0.815	1.292		0.855	1.230	

Note: For simplicity, income taxes are included in the return component.

EXHIBIT 4
ALTERNATIVE DEFICIENCY ALLOCATION METHODS FOR PP&L

	PP&L PROPOSAL			25% DEFICIENCY REDUCTION			50% DEFICIENCY REDUCTION			75% DEFICIENCY REDUCTION		
DEFICIENCIES												
Class	Present Revenues	Proposed Revenues	Deficiency	Proportional Scaleback	Constant Differential	Weighted Scaleback	Proportional Scaleback	Constant Differential	Weighted Scaleback	Proportional Scaleback	Constant Differential	Weighted Scaleback
RS	887.1	1,022.7	135.6	101.7	109.4	107.5	67.8	83.2	75.5	33.9	57.0	39.7
RTS	19.8	23.2	3.4	2.6	2.9	2.8	1.7	2.3	2.0	0.9	1.7	1.1
GS-1	162.2	168.5	6.3	4.7	1.5	2.3	3.2	(3.3)	(0.1)	1.6	(8.1)	(0.8)
GS-3	507.2	541.3	34.1	25.6	19.1	20.7	17.0	4.1	10.6	8.5	(10.8)	3.7
LP-4	273.4	301.1	27.8	20.8	19.7	20.0	13.9	11.6	12.8	6.9	3.6	6.1
LP-5	259.6	299.7	40.1	30.1	32.4	31.9	20.1	24.8	22.4	10.0	17.1	11.8
LPEP	8.4	8.9	0.5	0.3	0.2	0.2	0.2	(0.0)	0.1	0.1	(0.3)	0.0
SL/AL	21.2	24.2	3.0	2.3	2.4	2.4	1.5	1.8	1.6	0.8	1.1	0.9
GH(R)	43.6	50.7	7.0	5.3	5.8	5.6	3.5	4.5	4.0	1.8	3.2	2.1
Sub-Total	2,182.4	2,440.3	257.9	193.4	193.4	193.4	128.9	128.9	128.9	64.5	64.5	64.5
ISA	20.4	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Standby	1.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stystem	2,204.0	2,462.0	257.9	193.5	193.5	193.5	129.0	129.0	129.0	64.5	64.5	64.5
PERCENT CHANGES IN RATES												
RS	887.1	1,022.7	15.3%	11.5%	12.3%	12.1%	7.6%	9.4%	8.5%	3.8%	6.4%	4.5%
RTS	19.8	23.2	17.4%	13.0%	14.4%	14.1%	8.7%	11.5%	10.1%	4.3%	8.5%	5.4%
GS-1	162.2	168.5	3.9%	2.9%	0.9%	1.4%	1.9%	-2.0%	-0.0%	1.0%	-5.0%	-0.5%
GS-3	507.2	541.3	6.7%	5.0%	3.8%	4.1%	3.4%	0.8%	2.1%	1.7%	-2.1%	0.7%
LP-4	273.4	301.1	10.2%	7.6%	7.2%	7.3%	5.1%	4.3%	4.7%	2.5%	1.3%	2.2%
LP-5	259.6	299.7	15.4%	11.6%	12.5%	12.3%	7.7%	9.5%	8.6%	3.9%	6.6%	4.5%
LPEP	8.4	8.9	5.5%	4.1%	2.6%	2.9%	2.8%	-0.4%	1.2%	1.4%	-3.4%	0.2%
SL/AL	21.2	24.2	14.3%	10.7%	11.3%	11.2%	7.1%	8.4%	7.8%	3.6%	5.4%	4.0%
GH(R)	43.6	50.7	16.1%	12.1%	13.2%	12.9%	8.1%	10.2%	9.2%	4.0%	7.3%	4.8%
Sub-Total	2,182.4	2,440.3	11.8%	8.9%	8.9%	8.9%	5.9%	5.9%	5.9%	3.0%	3.0%	3.0%
ISA	20.4	20.5	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Standby	1.1	1.2	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%
Stystem	2,204.0	2,462.0	11.7%	8.8%	8.8%	8.8%	5.9%	5.9%	5.9%	2.9%	2.9%	2.9%

Notes:

1) Proportional Scaleback: Original class deficiency is reduced by the percentage decline in the overall deficiency.

2) Constant *Differential: Original proposed percentage* increase in rates is reduced by the differential between the original system percentage increase and the reved percentage system increase.

3) Weighted Scaleback: w * (proportional scaleback deficiency) + (1-w)*(constant differential deficiency), where w = (1-revised deficiency)/(original deficiency)

4) ISA and Standby classes are assumed to exhibit no change in the proposed deficiency.

UCC STATEMENT NO. 1
4/25/95 Hbg FX

Before the

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility Commission, et al.

v.

Pennsylvania Power & Light Company

Docket No. R-00943271

Testimony and Exhibit of
KENNETH EISDORFER

On Behalf of
University/College Coalition

April, 1995
Cook, Eisdorfer & Associates, Inc.

PENNSYLVANIA POWER & LIGHT COMPANY

Before the

Pennsylvania Public Utilities Commission

Docket No. R-00943271

Testimony of Kenneth Eisdorfer

Q. Please state your name and business address.

A. Kenneth Eisdorfer, 2258 Schuetz Road, St. Louis, Missouri, 63146.

Q. What is your occupation?

A. I am a consultant in the field of public utility regulation, and am a member of the firm Cook, Eisdorfer & Associates, Inc. My qualifications are described in the Appendix to this testimony.

Q. On whose behalf are you testifying in this case?

A. I am testifying on behalf of the University/College Coalition (UCC). The UCC consists of: Muhlenberg College, Wilkes University, Kings College, Messiah College, University of Scranton, Elizabethtown College, Dickinson College and Keystone Junior College.

Q. What is the purpose of your testimony?

A. I will discuss rate structure issues. Specifically, I will discuss the appropriate class cost-of-service study methodology for this case and will present the results of the study which incorporates that methodology. I will also address the class cost-of-service study that Pennsylvania Power & Light Company (PP&L) is supporting in this proceeding. Finally, I will critique PP&L's proposed class revenue distribution and I will recommend a cost-based distribution of any rate increase.

Q. What is the basic tenet which underlies proper utility ratemaking?

A. The foundation of proper ratemaking is that rates paid by various customers reflect the cost incurred by the utility in serving them. Cost-based rates confer upon both the utility and its ratepayers a number of benefits. First, rates that are based to the maximum extent possible upon the respective costs of various customers will minimize the subsidization of one ratepayer by another. This fulfills a fundamental requirement of regulation that rates be equitable and nondiscriminatory.

Second, cost-based rates promote utility earnings stability. Rates which deviate from costs result in cross-subsidization between customer classes. A direct result of cross-subsidization is instability of utility earnings. For instance, if sales decrease to a class contributing revenues substantially above its cost-of-service, utility earnings will deteriorate.

Third, cost-based rates offer appropriate price signals to customers which enables them to use electrical power efficiently, thereby conserving capital resources.

Last, cost-based rates for PP&L's customers will improve the competitive posture of both the utility's service territory and the Commonwealth of Pennsylvania. As will be demonstrated, PP&L's residential and municipal customers are currently being subsidized by nearly all of the remaining ratepayers. Businesses and institutions in PP&L's service territory are therefore placed at an unfair and unnecessary disadvantage in offering their goods and services in the competitive marketplace. This in turn has a retarding effect on the economic well-being of the residents located in PP&L's territory. Aligning rates more closely with costs will improve the competitive position of the service territory.

The tool that should be employed to effect cost-based rates is a properly constructed cost-of-service study. Such a study should accurately reflect actual cost causation on the PP&L system.

Q. What service does an electric utility provide?

A. An electric utility provides power instantaneously when it is demanded by supplying kilowatts. The energy i.e., kilowatthours, that is consumed by customers is simply the product of kilowatts demanded and time measured in hours. Consequently, the amount of energy consumed is a function of kilowatts supplied by the utility over time.

Q. What are the two broad categories of cost incurred by a utility?

A. Fixed costs and variable costs. Fixed costs do not vary with the quantity of energy consumed by the utility's customers. Variable costs vary directly with energy consumption.

Fixed costs can be further segregated into two subcategories: demand costs and customer costs. Demand-related or capacity costs rise out of the Company's obligation to provide electrical power instantaneously when it is required. In order to be able to perform this function, PP&L must have sufficient generation and transmission capacity to meet its peak load. It must also have sufficient transmission and distribution capabilities to supply load at the moment at which it is demanded. Demand costs are a function of the rate at which power is supplied to the utility's customers.

Customer-related costs are those which are incurred to place and maintain a given customer on the system although that customer may not use any electrical power. Generally, costs related to services and meters, along with portions of line transformers and feeders, are considered to be customer-related as are expenses associated with customer accounting and customer services.

The level of variable costs is directly dependent upon the amount of energy consumed. Fuel and energy-related purchased power constitute the overwhelming majority of variable costs. Remaining variable cost components include portions of working capital, production maintenance expense and associated administrative and general expenses.

Q. Typically, what is the most important issue with respect to the construction of a class cost-of-service study?

A. The selection of the methodology to allocate to classes demand-related production and transmission costs is of paramount importance in the construction of a class cost-of-service study.

Q. How should this methodology be formulated for a specific utility?

A. The utility's load (i.e., demand) pattern should be examined to determine when the annual system peak occurs. The annual system peak dictates the amount of production and transmission capacity that a utility must have available. On the PP&L system, the annual system peak occurs invariably in the winter. The fact that PP&L considers the annual system peak (i.e., the winter peak) to be predominant with respect to capacity resource planning is evidenced by Exhibit JFS-1 (called "Load and Capacity Forecast 1994-2003") which accompanies Mr. Sipics' testimony. That exhibit compares the magnitude of future winter peak loads with the amount of capacity available to PP&L. It is clear that PP&L considers the size of its annual system peak to be the driving force with respect to the amount of capacity that it must have available for its customers.

Once the relevant system loads have been ascertained, then costs are allocated to classes within a cost-of-service study on the basis of each class's relative coincident contribution to those loads. This is called the coincident peak (or peak responsibility) methodology of cost allocation.

Q. Have you examined PP&L's load pattern in order to determine which specific coincident peak should be utilized to allocate to classes demand-related production and transmission costs?

A. Yes. The peak that should be used can be determined by studying PP&L's relative monthly system peaks. This data for the most recent five calendar years is shown by the figures that appear on Schedule 1 of Exhibit KE-1 ( ). The annual system peak has a value of 100. Between 1990 and 1994, PP&L's annual system peak occurred during the months of January, February and December. The coincident peaks for the remaining nine months of the year have not been close to the annual system peak and there is no reason to believe that they will be in the future. I therefore conclude that the coincident peak that should be employed for the allocation of demand-related production and transmission costs is the annual system peak (i.e., the winter peak). I will designate this as the "1 CP" or the "winter peak" cost allocation methodology.

Q. Does PP&L's filing summarize the results of a winter peak cost-of-service study for the future test year?

A. Yes. This 1 CP cost-of-service study summary appears in Exhibit JMK 2, pages 134-137. I will discuss these results when I address the subject of PP&L's class revenue distribution.

Q. Please discuss the class cost-of-service study that PP&L is supporting in this proceeding. How does this study allocate demand-related production and transmission costs?

A. On the basis of class demands that are coincident with PP&L's system peaks for all twelve months of the year. This methodology can be designated as the monthly peak responsibility method or the twelve coincident peak method (12 CP).

Q. Is the 12 CP method appropriate for PP&L's system?

A. No. The 12 CP method incorporates nine months that have never contained the annual system peak and have virtually no chance to do so in the future. If one adds the monthly peak loads for the 1990 to 1994 period, the resulting relative monthly aggregate system peaks reveal the dramatic difference between these nine months and the winter months:

Table 1

Relative Monthly Aggregate System Peaks (1990-1994)

Winter Months		Remaining Nine Months	
January	98	March	93
February	100	April	80
December	97	May	76
Average	**98.3**	June	84
		July	91
		August	89
		September	82
		October	79
		November	86
		Average	**84.4**

The winter months have relative monthly system peaks that are all close to 100, with the average being 98.3. In sharp contrast, none of the relative monthly system peaks for the remaining nine months are close to 100. Their average is only 84.4. The loads for these nine months are not determinants of the amount of PP&L's bulk power capacity Therefore,

they should not be utilized to assign cost responsibility to customer classes.

Q. Does the manner in which the Pennsylvania-New Jersey-Maryland Interconnection (PJM) determines PP&L's Installed Capacity Obligation (ICO) support the use of the 12 CP method for capacity cost allocation?

A. Definitely not. The use of all twelve months of the year in the 12 CP method implies that system peaks other than the winter peak are the primary input in the determination of PP&L's ICO. The opposite is the case. PP&L's winter peaks are the overwhelming determinant of PP&L's ICO. The 12 CP method severely distorts this reality.

Q. Do system peaks other than the winter peaks play any role in the determination of PP&L's ICO?

A. The role that these other peaks play is very minor. In the determination of the ICO, PJM employs weekly system peaks for the computation of the "load drop adjustment". With respect to the current 1994-1995 planning period, this adjustment increased PP&L's ICO by only 0.15% from what it would have been otherwise.

The magnitude of PP&L's summer peak is an input for the calculation of several small diversity adjustments in the ICO computation. These adjustments for the 1994-1995 planning period collectively reduced PP&L's ICO by 6.9% from what it would have been otherwise.

PP&L's winter peaks are, therefore, the overwhelming driving force

in the determination by PJM of the Company's ICO. The Commission should recognize this fact by rejecting PP&L's 12 CP cost-of-service study and by adopting the winter peak cost-of-service study.

Q. Please address the subject of class revenue distribution. What is a class subsidy?

A. A class subsidy is the difference between the revenues and the total cost to serve a class at the overall average rate of return as determined by a proper cost-of-service study.

Q. Does PP&L's current class revenue distribution contain severe interclass subsidization?

A. Yes. No class has a rate of return that is close to the jurisdictional average. Furthermore, as shown by the following table, PP&L's major commercial and industrial rate classes are currently paying huge annual subsidies:

Table 2

Rate Class	Present Revenue (000)	Subsidy Provided (000)	Percent
GS-1	$ 162,217	$ 46,949	28.9%
GS-3	507,172	112,339	22.2
LP-4	273,353	52,803	19.3
LP-5	259,612	15,385	5.9
Total	$1,202,354	$ 227,476	18.9%

Collectively, the subsidies that are being provided by these four classes total $227,476,000 per year. This is 88.2% of PP&L's requested jurisdictional rate increase. On average, 18.9 cents of every dollar paid by these ratepayers is used to pay the cost of providing power to a

subsidized customer. The vast majority of this subsidy ($219,653,000 per year) benefits residential customers to the detriment of the economic viability of the entire service territory.

Q. How does Company witness Kasper attempt to justify his proposed class revenue distribution?

A. Mr. Kasper attempts to justify his proposal by examining the change in the class rate of return as a percentage of the system rate of return at proposed rates vis-a-vis those at present rates for the 12 CP cost-of-service study. This is identical to inspecting changes in class relative rate of return (ROR) indices. (An ROR index for a class is simply the class' ROR as a percent of the system's ROR, expressed as a whole number.) As we have seen, the 12 CP cost-of-service study is improper for the PP&L system. Putting aside for the moment the impropriety of the 12 CP study, it is inappropriate to use class ROR indices to determine whether a proposed revenue distribution will reduce existing class subsidies. Frequently a change in the ROR index for a given class between present and proposed rates will purport to indicate a reduction in class subsidy values when in reality the opposite is the case.

Q. Please illustrate the fallacy of relying on the movement in class ROR indices to conclude that a proposed revenue distribution is cost-based.

A. Several examples of this fallacy are contained in Schedule 2 of Exhibit KE-1 ( ). (The examples utilize the present and proposed rate of return

for PP&L's total jurisdiction of 7.13% and 10.17%, respectively as shown on Exhibit Future 1, C-1.) Page 1 presents the example of a class that is currently being subsidized and has an ROR index of 75. It is desired to reduce the difference between this ROR index and an ROR index of 100 (unity) by 20%. The proposed ROR index for the class is therefore 80. However, under this proposal the subsidy being provided to this class would increase despite the 20% movement of the ROR index to unity. Table 3 delineates the specifics of the fallacy:

Table 3

	Present	Proposed
ROR Index	75	80
Subsidy Received	$6,588,000	$7,308,000

Therefore, a proposed 20% movement of the ROR index to unity would not produce a reduction in the subsidy now being provided to the class, but would increase that subsidy by 10.9%!

An example for a class that is subsidizing other customers is shown on page 2 of Schedule 2. At present rates the ROR index for the class is 130. It is desired to reduce the difference between this ROR index and 100 by 20% (thereby producing a ROR index of 124). However, the subsidy provided by this class would not be reduced by 20% under this proposal. It would increase by 11.4% (from $7,884,000 to $8,784,000)!

Q. You have demonstrated through the above examples that the movement in

class ROR indices is not deterministic with respect to whether a proposed revenue distribution reduces class subsidies vis-a-vis present rates. What is the explanation for the changes in class subsidy figures between present and proposed rates in your examples?

A. The percentage change in the class subsidy figures is explained by the percentage change in the ROR excess (deficiency) for the class. The ROR excess (deficiency) for a class is computed by subtracting the rate of return for the system from the class rate of return. If the result is a positive number, the class has a ROR excess. A negative number indicates a ROR deficiency.

The absolute correlation between the percentage change in the ROR excess (deficiency) and the percentage change in class subsidies between present and proposed rates can be illustrated through the examples contained in Schedule 2. These are shown specifically in Table 4:

Table 4

	Present	Proposed	Percentage Change
Example 1			
ROR Deficiency	1.83%	2.03%	10.9%
Subsidy Received	$6,588,000	$7,308,000	10.9%
Example 2			
ROR Excess	2.19%	2.44%	11.4%
Subsidy Provided	$7,884,000	$8,784,000	11.4%

This correlation is generalized through a mathematical proof shown on Schedule 3 of Exhibit KE-1 ( ).

Q. Please now turn specifically to an evaluation of PP&L's proposed class

revenue distribution. What are the class ROR excess (deficiency) figures at present and proposed rates?

A. Please turn to Schedule 4 of Exhibit KE-1 ( ). The figures on this schedule show present and proposed class rates of return (Columns 1 and 3) along with the resulting ROR excesses (deficiencies) (Columns 2 and 4) under the 1 CP cost-of-service study.

Q. What does an inspection of the class ROR excess (deficiency) figures shown on Schedule 4 reveal about PP&L's proposed revenue distribution?

A. These figures reveal the deficient nature of PP&L's proposed class revenue distribution. Specifically, the rate of return excess or deficiency is greater at proposed rates than at present rates for seven of the eleven customer classes. This means that PP&L's proposed revenue distribution would move rates away from cost vis-a-vis the current distribution for 64 percent of the customer classes. PP&L's proposal would therefore increase existing class subsidies.

Q. How do the specific class subsidies under PP&L's proposed revenue distribution compare with those at present rates?

A. The specific class subsidy data is shown by the figures contained in Schedule 5 of Exhibit KE-1 ( ). Recall that a subsidy for a class represents the deviation of a class's revenue from the cost incurred to serve it. A negative subsidy figure on Schedule 5 indicates that a class is being subsidized. Those classes that have positive subsidy figures are providing subsidies to other classes. PP&L's proposed

revenue distribution would result in an exacerbation of existing subsidies for seven of the Company's eleven customer classes. With respect to the five major classes (RS, GS-1, GS-3, LP-4 and LP-5), three (RS, LP-4 and LP-5) would move away from cost under PP&L's proposal.

Another demonstration of the untenable subsidization that would exist on the PP&L system if the Company's proposed revenue distribution were to be implemented is provided by the figures in Table 5. These figures show the return on common equity that would effectively be earned on service to PP&L's major commercial and industrial classes at proposed rates. (These figures were derived by utilizing the cost of senior capital along with PP&L's common equity ratio for the future test year as presented in Exhibit Future 1, Schedule B-9.) Note how these return on equity figures dwarf PP&L's claimed cost of common equity of 13.00%:

Table 5

Rate Class	Return on Common Equity
GS-1	29.97%
GS-3	27.31%
LP-4	30.60%
LP-5	24.83%

In sharp contrast, the return on common equity that would effectively be earned on service to the RS class would be only 4.93%--substantially below PP&L's cost of long-term debt (7.97%)! PP&L's proposed revenue distribution should be rejected.

It should be noted, in accordance with the earlier discussion, that there is a correspondence between the proposed percentage change in

the existing subsidy for each class and the proposed percentage change in its current ROR excess (deficiency). On the other hand, there is no correspondence between proposed movements in class ROR indices and proposed subsidy changes. For example, the annual subsidy now being provided by Rate LP-4 is proposed to increase by 13.8% (from $52,803,000 to $60,083,000). The ROR excess for this class is also proposed to increase by 13.8% (from 7.15% to 8.14%). In sharp contrast, the ROR indices for Rate LP-4 would move 9.1% closer to unity at proposed rates as compared to present rates (from 198 to 180). Therefore, a casual inspection of the ROR indices suggests that under PP&L's proposal Rate LP-4 would move towards cost when in fact the disparity between class revenues and costs would increase. The Commission should not allow itself to be misled by class ROR indices into incorrectly concluding that a proposed revenue distribution reduces class subsidization.

Q. How do you propose to reduce the severe interclass subsidization on the PP&L system?

A. By presenting for the Commission's consideration a cost-based class revenue distribution that has been constructed with the following parameters:

1) Reduce the subsidies that are currently being received by the subsidized classes by one-half with the constraint that no class incur an increase that is more than three times the overall percentage increase requested by PP&L for the jurisdiction of 11.7%.

2) Reduce the subsidies that are currently being paid by the subsidizing classes by a uniform percentage.

3) The rate case increase to Rate ISA is limited by special contract. Therefore, the revenue level for this class would be as proposed by PP&L.

Q. You are proposing to cap the rate increase for any given class at 35.1% (11.7% x 3). Isn't this excessive?

A. No. It must be remembered that this is the first PP&L base rate case since 1985. During the ten year span since the last base rate increase the Consumer Price Index (CPI) has increased by more than forty percent.

Q. Please present your recommended class revenue distribution.

A. My recommended class revenue distribution is presented by the figures that appear on Schedule 6 of Exhibit KE-1 ( ). The resulting class rate of return data and subsidy figures are shown on Schedules 7 and 8, respectively. When compared with the corresponding data at present rates shown on these schedules, the following characteristics of my recommended class revenue distribution can be discerned: First, each class that is currently providing a subsidy would move approximately 38% closer to cost. Second, the subsidized RS, GH and Lighting classes would have their current deviations from cost reduced by one-half. These two characteristics reflect a revenue distribution proposal that would move each of PP&L's major customer classes significantly closer towards cost and would dramatically decrease the overall interclass subsidization that currently exists on the Company's system.

Even though the figures shown on Schedule 6 are at PP&L's requested jurisdictional revenue increase, they should not be construed to be an endorsement of that request. If the Commission grants PP&L a

smaller overall increase, I recommend that it be distributed to customer classes by reducing proportionately the figures contained in Column 2 of Schedule 6.

Q. Does this conclude your direct testimony?

A. Yes, it does.

APPENDIX

Qualifications of Kenneth Eisdorfer

Mr. Eisdorfer was graduated from Washington University, St. Louis, Missouri, with the degree of Bachelor of Science in Chemical Engineering in May, 1973. In June, 1977, he was awarded the degree of Master of Business Administration with a Finance major from Baruch College of the City University of New York.

From 1973 to 1977, Mr. Eisdorfer was employed in the chemical process industry by the Lummus Company and the Chemical Construction Corporation as a project engineer.

In September, 1977, Mr. Eisdorfer joined Drazen-Brubaker & Associates, Inc. He participated in the analysis of various utility rate cases, including cost-of-service, rate design, rate analysis, and special studies.

In October, 1981, Mr. Eisdorfer joined in the formation of the partnership of Cook, Eisdorfer, Willer & Associates. The firm incorporated in December, 1981. In general, the firm is engaged in regulatory consulting, economic and cost-of-service studies, design of rates, and contract negotiations.

Mr. Eisdorfer has testified before the regulatory commissions of Arkansas, Colorado, Florida, Idaho, Indiana, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Missouri, New York, Ohio, Pennsylvania, and Texas. He has also testified before the City of Tacoma, Board of Public Utilities, Light Division, Tacoma, Washington.

Exhibit KE-1 ( )
Schedule 1

PENNSYLVANIA POWER & LIGHT COMPANY

Relative Monthly System Peaks
(Annual System Peak = 100)

Line	Month	1990 (1)	1991 (2)	1992 (3)	1993 (4)	1994 (5)
1	January	88	99	100	90	100
2	February	100	93	96	100	97
3	March	94	86	89	95	89
4	April	80	77	80	76	74
5	May	73	85	70	72	69
6	June	82	85	76	81	86
7	July	88	94	85	88	88
8	August	87	90	84	88	83
9	September	79	86	80	85	70
10	October	77	76	80	76	73
11	November	84	87	83	83	79
12	December	93	100	92	98	88

Source: PP&L's response to interrogatories of the PP&L Industrial Customer Alliance, Set I, Question 32.

PENNSYLVANIA POWER & LIGHT COMPANY

ROR Indices and Class Subsidization

Line	Description	Present Rates (1)	Proposed Rates (2)
1	Jurisdictional ROR	7.31%	10.17%
	Example 1: It is Proposed that a Subsidized Class have the Difference between its Present ROR Index and 100 Reduced by 20%		
2	ROR Index	75	80
3	ROR (Line 2 applied to Line 1)	5.48%	8.14%
4	ROR Deficiency (Line 3 - Line 1)	1.83%	2.03%
5	Rate Base	$200,000,000	$200,000,000
6	Operating Income Deficiency (Line 4 x Line 5)	$3,660,000	$4,060,000
7	Gross Revenue Conversion Factor	1.8	1.8
8	Subsidy Received (Line 6 x Line 7)	$6,588,000	$7,308,000

PENNSYLVANIA POWER & LIGHT COMPANY

ROR Indices and Class Subsidization (cont'd)

Line	Description	Present Rates (1)	Proposed Rates (2)
1	Jurisdictional ROR	7.31%	10.17%
	Example 2: It is Proposed that a Class that is Providing a Subsidy have the Difference between its Present ROR Index and 100 Reduced by 20%		
2	ROR Index	130	124
3	ROR (Line 2 applied to Line 1)	9.50%	12.61%
4	ROR Excess (Line 3 - Line 1)	2.19%	2.44%
5	Rate Base	$200,000,000	$200,000,000
6	Operating Income Excess (Line 4 x Line 5)	$4,380,000	$4,880,000
7	Gross Revenue Conversion Factor	1.8	1.8
8	Subsidy Provided (Line 6 x Line 7)	$7,884,000	$8,784,000

PENNSYLVANIA POWER & LIGHT COMPANY

Demonstration of the Equivalency Between
the Percentage Change in the ROR Excess (Deficiency)
for a Class and the Subsidy Provided by (to) that Class

Let: CPres = Class Present ROR
CProp = Class Proposed ROR
SPres = System Present ROR
SProp = System Proposed ROR
RB = Rate Base
GRCF = Gross Revenue Conversion Factor.

The present class ROR excess (deficiency) is:

$$CPres - SPres.$$

The proposed class ROR excess (deficiency) is:

$$CProp - SProp.$$

The percentage change in the ROR excess (deficiency) between present and proposed rates is:

$$(1) \quad \left(1 - \frac{CProp - SProp}{CPres - SPres}\right) \times 100.$$

The present class subsidy is:

$$(CPres - SPres) \times RB \times GRCF.$$

The proposed class subsidy is:

$$(CProp - SProp) \times RB \times GRCF.$$

The percentage change in the class subsidy between present and proposed rates is:

$$\left(1 - \frac{(CProp - SProp) \times RB \times GRCF}{(CPres - SPres) \times RB \times GRCF}\right) \times 100$$

or

$$(2) \quad \left(1 - \frac{CProp - SProp}{CPres - SPres}\right) \times 100.$$

Expression (2) is equivalent to Expression (1).

Exhibit KE-1 ( )
Schedule 4

PENNSYLVANIA POWER & LIGHT COMPANY

Rate of Return Data for the Winter Peak Cost-of-Service Study
at Present Rates and Under PP&L's Proposed Rates
(Year Ending September 30, 1995)

Line	Cost-of-Service Study Rate Class	Present Rates		PP&L's Proposed Rates	
		Rate of Return (1)	ROR Excess (Deficiency) (2)	Rate of Return (3)	ROR Excess (Deficiency) (4)
1	RS	3.72%	(3.59)%	6.53%	(3.64)%
2	RTS	(5.36)	(12.67)	(4.39)	(14.56)
3	GS-1	16.67	9.36	18.02	7.85
4	GS-3	14.56	7.25	16.80	6.63
5	LP-4	14.46	7.15	18.31	8.14
6	LP-5	9.59	2.28	15.66	5.49
7	LPEP	11.55	4.24	13.43	3.26
8	ISA	2.94	(4.37)	2.98	(7.19)
9	GH	5.44	(1.87)	8.63	(1.54)
10	Lighting	4.90	(2.41)	6.86	(3.31)
11	Standby	782.36	775.05	789.50	779.33
12	Total Jurisdiction	7.31%	0.00%	10.17%	0.00%

Exhibit KE-1 ( )
Schedule 5

PENNSYLVANIA POWER & LIGHT COMPANY

Class Subsidy Data at Present Rates
and Under PP&L's Proposed Rates
Year Ending September 30, 1995

Line	Cost-of-Service Study Rate Class	Present Subsidy (000) (1)	PP&L's Proposed Subsidy (000) (2)
1	RS	$(174,847)	$(177,664)
2	RTS	(44,806)	(51,495)
3	GS-1	46,949	39,373
4	GS-3	112,339	102,786
5	LP-4	52,803	60,083
6	LP-5	15,385	36,943
7	LPEP	1,045	801
8	ISA	(2,022)	(3,322)
9	GH	(4,065)	(3,362)
10	Lighting	(3,655)	(5,025)
11	Standby	874	882
12	Total Jurisdiction	$0	$0

Note: A positive subsidy figure denotes that a class is providing a subsidy to other classes. A negative subsidy figure denotes that a class is receiving a subsidy from other classes.

Exhibit KE-1 ( )
Schedule 6

PENNSYLVANIA POWER & LIGHT COMPANY

Recommended Class Revenue Distribution
(Year Ending September 30, 1995)

Line	Cost-of-Service Study Rate Class	Present Revenue (000) (1)	Recommended Revenue (000) (2)	Increase Amount (000) (3)	Increase Percent (4)
1	RS	$887,112	$1,112,973	$225,861	25.5%
2	RTS	19,774	26,715	6,941	35.1
3	GS-1	162,217	158,333	(3,884)	(2.4)
4	GS-3	507,172	508,318	1,146	0.2
5	LP-4	273,353	273,879	526	0.2
6	LP-5	259,612	272,343	12,731	4.9
7	LPEP	8,405	8,717	312	3.7
8	ISA	20,449	20,480	31	0.2
9	GH	43,628	51,998	8,370	19.2
10	Lighting	21,161	27,384	6,223	29.4
11	Standby	1,148	817	(331)	(28.8)
12	Total Jurisdiction	$2,204,031	$2,461,957	$257,926	11.7%

Exhibit KE-1 ( )
Schedule 7

PENNSYLVANIA POWER & LIGHT COMPANY

Rate of Return Data for the Winter Peak Cost-of-Service Study at Present Rates and Under Recommended Class Revenue Distribution
(Year Ending September 30, 1995)

Line	Cost-of-Service Study Rate Class	Present Rates		Recommended	
		Rate of Return	ROR Excess (Deficiency)	Rate of Return	ROR Excess (Deficiency)
		(1)	(2)	(3)	(4)
1	RS	3.72%	(3.59)%	8.38%	(1.79)%
2	RTS	(5.36)	(12.67)	(3.40)	(13.57)
3	GS-1	16.67	9.36	15.99	5.82
4	GS-3	14.56	7.25	14.68	4.51
5	LP-4	14.46	7.15	14.62	4.45
6	LP-5	9.59	2.28	11.59	1.42
7	LPEP	11.55	4.24	12.82	2.65
8	ISA	2.94	(4.37)	2.98	(7.19)
9	GH	5.44	(1.87)	9.24	0.93
10	Lighting	4.90	(2.41)	8.97	(1.20)
11	Standby	782.36	775.05	490.11	479.94
12	Total Jurisdiction	7.31%	0.00%	10.17%	0.00%

Exhibit KE-1 ( )
Schedule 8

PENNSYLVANIA POWER & LIGHT COMPANY

Class Subsidy Data at Present Rates and Under
Recommended Class Revenue Distribution
Year Ending September 30, 1995

Line	Cost-of-Service Study Rate Class	Present Subsidy (000) (1)	Recommended Distribution (000) (2)
1	RS	$(174,847)	$(87,424)
2	RTS	(44,806)	(47,992)
3	GS-1	46,949	29,185
4	GS-3	112,339	69,833
5	LP-4	52,803	32,824
6	LP-5	15,385	9,564
7	LPEP	1,045	650
8	ISA	(2,022)	(3,322)
9	GH	(4,065)	(2,033)
10	Lighting	(3,655)	(1,828)
11	Standby	874	543
12	Total Jurisdiction	$0	$0

Note: A positive subsidy figure denotes that a class is providing a subsidy to other classes. A negative subsidy figure denotes that a class is receiving a subsidy from other classes.