

**REPORT OF THE
UTILITY WORKERS
COALITION**

**ON
STRATEGIC WORKFORCE
PLANNING
IN THE UTILITY INDUSTRY**

February 2006

STRATEGIC PLANNING IN THE WISCONSIN UTILITY INDUSTRY

Long-Term Labor Force Succession Planning

The Unfolding Problem

Approximately 76 million Americans were born between 1946 and 1964, the so-called Boomer generation. There is an emerging body of studies and evidence today that should alert policymakers, customers, workers and even shareholders of the gas and electric utility industry. This utility industry is the first to face a significant and complex threat to its survival as well as a threat to its commitment to continue to provide reliable and safe electric service to its customers, due to the huge wave of retirements over the next five to ten years.

The industry has suffered through vigorous efforts aimed at deregulation and its related restructuring; a process which continues today in the regulatory and legislative arenas and in the industry's internal corporate business practices. The stability and reliability of the industry will be further compromised due to the problems associated with the demographics of the current labor force. Nationally the industry has lost approximately 25% of its labor force since the passage of the Energy Policy Act of 1992 – largely as a result of deregulation and restructuring efforts. With the cycle of impending retirements the industry will lose another 25% in the next five years. The utilities in those states that have embraced deregulation face a greater threat than those that have not – as they cut the industry labor force in both skilled workers and in the ranks of management far more severely than in those states that did not. The Bureau of Labor Statistics projects that nationally there will be nearly 10,000 more industry jobs than workers available to fill them by 2012.

From the skilled to semi-skilled trades' workers to the middle and senior management, these are the people who are walking out the door who have the knowledge, skills and experience to produce, construct, upgrade and maintain a gas and electric utility infrastructure. For the most part, across the continent and in Wisconsin, these workers

are not being replaced and there is little or no comprehensive succession planning being done to address this unfolding crisis. These are the people who keep the lights on and the gas flowing and then restore them when they are out. They keep our homes and businesses safely supplied with the energy so desperately needed to function. In short, there is a "slow-motion train wreck" unfolding as the necessary work that is vital to the functioning of a modern society may not and in many cases is not getting done because there appears to be little-to-no planning being done by the industry to replace these skilled workers.

An informal survey done by the Utility Workers Coalition¹ has identified that between 2005 and 2010 the Wisconsin utilities will likely see the retirement of approximately 319 electric transmission and distribution workers, 304 generation workers and 114 gas workers. By 2015 the total number of workers likely to retire in the Wisconsin utilities swells to 545, 546 and 228 respectively. These numbers represent only workers who are employees of the utilities and do not include the retirements of other skilled workers who are working for contractors. It takes approximately five years for a skilled worker in this industry to achieve "journeyman" status. Further, most all parties in the industry recognize that it takes about 10 years for that skilled worker to be considered "well rounded" and experienced - provided they are given the opportunity to perform and experience the variety of tasks associated with their trade. The task before us, then, is to replace over 700 highly skilled and experienced workers and we only have four years to cram five to ten years of training and experience into them. By 2015 this task would require the hiring and training of a total of more than 1300 skilled workers. Amongst the Wisconsin investor-owned-utilities² (IUO's) very little hiring is occurring. Currently, one of them is hiring these workers and that happens only when one of the current workers leaves. If the industry itself is unwilling to recognize this critical need to replace its skilled labor force, then it is eroding its fundamental "obligation to serve" its

¹ The Utility Workers Coalition (UWC) was formed in 1992 in response to changes developing in the gas and electric utility industry, in particular in response to the passage of EPACT 1992; recognizing the potential for significant and negative impact on the electric industry's customers, workers and shareholders. Today the UWC unions represent approximately 10,000 workers in Wisconsin alone and 18,000 across the Midwest. The UWC conducts monthly meetings and holds an annual conference in the fall.

² The Wisconsin IOU's referenced above include; Alliant Energy/WPL, MGE Energy/Madison Gas and Electric, WPSR/Wisconsin Public Service Corporation, WeEnergies, and Excel Energy/NSP.

customers. Those parties that have a stake in the present and future of this industry must work to require and/or provide an incentive to this industry to carry out its obligation. Given the nature of the gas and electric industry, those parties are, indeed, all of us.

Studies and Evidence

Recently there has been a great deal of commentary and research regarding the staffing crisis and the strategic planning/business practices of the gas and electric utility industry. Several of these documents provide excellent insight into the crisis unfolding and are included at the end of this report as reference attachments. These documents are reviewed and summarized below and include the following; (1) *Utility Workers Coalition Report: Utility Industry Compliance with PSCW 113.0607; Appropriate Inspection and Maintenance: System Reliability*, (2) *White Paper: The High Cost of Losing Intellectual Capital*, Energy Central, (3) *Workforce Trends Deliver Utility Industry a Knock-out Blow*, HayGroup, (4) *Workforce Aging and Turnover in the U.S. Electric Power Industry*, Michael Ashworth, Carnegie Mellon University, (5) *Workforce Planning for Public Power Utilities: Ensuring Resources to Meet Projected Needs*, American Public Power Association, (6) *Chapter PSC 113 Service Rules for Electric Utilities*, a summary of key utility worker-related issues in Chapter PSC 113. While the UWC does not necessarily agree with all of the points made in some of the studies discussed below, the universal point raised by all of these is that there is a tremendous demographic challenge facing the gas and electric utility industry and, for the most part, remarkably that challenge is not being addressed.

- (1) *Utility Workers Coalition Report: Utility Industry Compliance with PSCW 113.0607; Appropriate Inspection and Maintenance: System Reliability.*

The UWC reports: After the passage of the Energy Policy Act of 1992 the drive to deregulate the electric utility industry began in earnest. In Wisconsin deregulation was identified as premature – at best – as the PSC rolled out its **32-Step Plan** of preconditions

to be met as an "if and only if" list of requirements to be met before the step to retail customer deregulation would be considered. The Governor, the legislature, the PSCW and the various stakeholders all agreed that rather than abandon the regulatory compact and the utilities' obligation to serve, the industry should focus first and foremost on reliability. Learning from the experiences of other industries that have faced deregulation and restructuring, **Wisconsin Act 204** was passed in 1997-1998. Included in that legislation was the recognition of the need to take operation and maintenance practices out of competition regardless of the future structure of the industry; a fundamental component of reliable electric infrastructure was the need to take care of the system through sound maintenance practices. **Statute 196.491(5) Service Standards for Electric Generation, Transmission and Distribution Facilities** did just that, requiring the PSC to promulgate such rules; **Chapter PSC 113**.

A preliminary review by the UWC of the required electronic filings³ of the IOU's, the American Transmission Company (ATC), Municipal utilities (Muni's), and the Independent Power Producers (IPP's) looked at whether these entities were (1) complying with the reporting requirements regarding their preventative maintenance plans and (2) actually accomplishing the necessary and required work of a competent plan. It is the opinion of the UWC that the Muni's tended to do a good job in their reporting and the ATC did an excellent job in their reporting. Both could and should serve as models for the rest of the industry to follow in terms of reporting. Shortcomings in the ATC's reporting were largely due to the integration of a new computerized maintenance management system (still in process) across the various IOU's. However, one area of concern that was discovered during the review of the ATC filing was the fact that some of the preventative maintenance work could not get done because the IOU's did not have the personnel available to perform the work they are obligated to do under their contract (formerly required under legislation). The IPP's did not file any preventative maintenance plans at all and did, therefore, not file any compliance with the

³ Electric utilities and IPP's are required to file their compliance with Chapter PSC 113 Rules electronically on the PSCW's Electronic Regulatory Filing System (ERF). ERF can be accessed on the PSCW's web site at; <http://psc.wi.gov/>. The Docket ID is; 05-GF-113. PSCW's 113.0607 filings were due May 1, 2005 and most were filed by June, 2005.

non-existent plans. If an IPP has a contract with a public utility for 5 years or more, they are supposed to do both of the above. Since there presumably are such IPP/public utility arrangements these IPP's are in clear violation of the rules and the law. The IOU's tended to provide similar information for generation facilities; mostly just generator availability data. This is insufficient, since this kind of data is only one element of reporting upon one's compliance with their specific preventative maintenance plan. Reports from the field indicated that the IOU's, generally, are not engaging in sound preventative maintenance practices in the fleet of generation. The IOU's distribution and transmission systems, unfortunately, demonstrate a common theme in their reports; much of the scheduled work of the preventative maintenance plans is not getting done. This is substantiated by those that work in the field. Some IOU's are doing a better job than others in their reporting, some are doing little meaningful reporting at all. In some positive news, some utilities have done good work on some capital/replacement projects that were not part of their preventive maintenance plans. The UWC concluded that there is a tremendous need for intervention by regulatory authorities to see to it that the utility industry not only complies with the rules and the law but also sees to it that the necessary preventative maintenance work gets done. It is not sufficiently getting done now and this will become further compromised as 50% to 80% of the labor force that performs such work is likely to retire over the next 10 years.

(2) *Energy Central White Paper: The High Cost of Losing Intellectual Capital. Unfavorable Worker Demographics and Neglected Workforce Planning Could Produce Significant Adverse Consequences for Utility Companies in the Future.*

Energy Central reports, from their Executive Summary, in part: "Perhaps no industry has undergone as much change over the past 10 years as the utility industry. The cumulative effect of these changes on the traditional utility workforce is staggering. Long known for its workforce stability, the utility industry is now asking declining numbers of employees to take on additional, newer responsibilities as the industry continues to evolve to meet the challenges of the 21st Century."

"A recent study conducted by Energy Central involving utility workforce issues revealed that the problem might be worse than was previously expected. Among its findings, the study suggested that a major disconnect could exist among many utility executives and the lower level operations and engineering personnel who are charged with operating and maintaining the utility's mission critical T&D and generation functions. The study concluded that only 57% of all utilities have a strategy in place for managing the impending workforce crisis."

"An entire industry comprised of third-party energy generation firms, suppliers and marketers has emerged to have a significant impact on energy supply. This competitive new industry must withstand the pressures of real market competition at a time when energy costs are rising; supply is becoming more problematic and delivery less reliable."

"The signs all point to an impending utility staffing crisis as the baby boomer generation moves steadily into retirement age. Even with effective workforce planning, the demographics are working against utilities who struggle to retain good workers during periods of uncertainty caused by restructuring and downsizing. Shortages of technical personnel, reduced numbers of engineering graduates, aging personnel in critical job functions such as line workers and system operators together provide further evidence that this crisis is brewing. BLS statistics indicate that 30% or more of the existing workforce is or will be eligible for retirement in the next 5 years, and by 2012 it is believed there will be nearly 10,000 more industry jobs than workers available to fill them."

The report identifies eight insights into addressing the crisis. Included in that discussion is; the concern that some utility executives have become distracted "from the 'nuts and bolts' issues of keeping the lights on. Workforce planning is critical to maintaining this focus and providing sufficiently trained and knowledgeable personnel needed to perform essential daily services." The report further finds that a majority of utilities are ill prepared for this situation and that line workers appear to be the job category where the

greatest impact is being felt. "Strategic workforce planning is an essential critical discipline that should be implemented..."

(3) Workforce Trends to Deliver Utility Industry a Knock-out Blow. How smart firms can beat demographics to the punch.

The HayGroup Working Paper reports: "The utility industry is facing the most significant and complex threat to its survival ever. From Executive Suite down to the lineman, significant numbers of mission-critical employees are rapidly approaching retirement eligibility. On average, these employees are older than their counterparts in other industries and represent approximately 50 percent of the industry's knowledge assets. Over the next four years, a substantial number of senior professions – in key roles ranging from Chief Executive Officer and Senior Management to Senior Engineers, Operations Managers, Nuclear Operators, Gas Transmission Specialists, and Control Supervisors – will likely take advantage of their ability to retire from their current companies and explore new career and life opportunities."

The report indicates that most utilities have no succession plan and; "Even if these companies had a succession plan, where would they find the needed talent?" They found that during the tumultuous period of deregulation utilities were in the business of merging and downsizing, not recruiting and developing talent. Now those mid-career survivors are coming of retirement age. Greater than 2/3 of the responding utility companies have no system in place to secure critical knowledge transfer. Bleaker yet, people don't want to work in this industry. HayGroup believes that a comprehensive, integrated HR strategy is the only road to survival. "The successful plan must emphasize a customized approach to data acquisition, succession planning, career development, recruiting, reward, retention, work systems, work processes, transfer of critical skills, outsourcing, organizational design and job design. But make no mistake: this is not an HR crisis; it is a corporate crisis." A key part of an HR strategic plan is "a targeted retention campaign" and they discuss some options. The report concludes, in part; "Like a boxer training for the fight of a lifetime, the struggling utilities sector must prepare for its upcoming battle

against time. The industry must tailor its systems, programs, and thinking to the needs of both older and 'Millennium Generation' employees." And; "In guiding utility companies through this workforce planning crisis, HR organizations must test their assumptions and strategies, and retain respect for the decades-long relationships these utility companies have developed with their employees." (Emphasis added.)

(4) *Workforce Aging and Turnover in the U.S. Electric Power Industry. Preserving Legacies of Knowledge.*

Michael Ashworth, Carnegie Mellon University reports: The average tenure of workers in the industry is the highest among the worlds labor force and this labor force has recently been driven down by deregulation and technology implementation and work practice design. Now workforce aging threatens a new type of disruption; with resulting loss of knowledge, experience, impaired organizational learning capability, and lower performance and quality of service. Employment has declined 23.7% to pre-1975 levels while output has grown by 30% over the same fifteen year period. While the utility industry is not alone facing the aging workforce it is among the first to have to address the consequences. In a survey of HR executives: "Most respondents (74%) said 40 to 50 percent of their employees will be eligible to retire after the next 5 years." The survey results summarized below are in response to the question: "What are the top 5 HR issues facing the electric power industry?" (Source: Ashworth 2005)

HR Issues Identified	Rank-Weighted Index
Aging Work Force	88
Skilled Work Force	58
Cost of Employee Benefits	56
Leadership Development	24
Transition to Performance Culture	19
Increasing Work Force Diversity	14
Constructive Labor Partnerships	9

HR Technology & Management	7
Work Force Engagement	6
Organization Design/Alignment	5
Productivity Improvement	3
Governance and Compliance	2
Labor Cost Control	1
Homeland Security	1
Other	1

A majority of respondents (71%) link the aging workforce to other issues of concern; high turnover, extended learning curves for newcomers, knowledge replacement, knowledge transfer between retiring and incoming workers and replenishment of team-level leadership. The aging workforce is of a more moderate concern among “public power” (muni’s and coops) providers and areas where little to no deregulation has taken place, for example, the South. Smaller providers tend to have a higher priority than do larger providers because a loss of even a few workers can have a greater impact on the internal labor force as they are less able to absorb the turnover. The turnover facing the industry results in short-term decrease in productivity that is negatively related to the length of time that replacement workers are hired before the retirees leave.

(5) *Work Force Planning for Public Power Utilities: Ensuring Resources to Meet Projected Needs.*

The American Public Power Association, APPA, reports: The APPA conducted a survey in 2005 with the following results;

- 50 percent of the respondents indicated that more than 20 percent of their labor workforce would be eligible to retire in the next five years;
- 63 percent of respondents identified “skilled trades” as being among the utility positions with the most retirements over the next five years;
- 52 percent of respondents indicated that vacancies among “skilled trade” positions would be among the most difficult to fill;

- 64 percent of respondents believe that retirements will pose either a moderate or very great challenge to their utility;
- Twice as many respondents in 2005 believe that retirements will create a “significant challenge” for their utility than in the 2002 survey; and
- The most significant challenges created will be the loss of knowledge due to retirements, the difficulty finding replacements, and the lack of bench strength within the organization.

The APPA also goes on to detail an essential seven-step work force planning model for utilities to use to address the work force issues arising from anticipated retirements:

1. Link Work Force Needs to the Strategic Plan
2. Conduct a Work Force Analysis
3. Identify Future Work Force Needs
4. Perform a Gap Analysis
5. Develop a Strategy
6. Implement Strategy
7. Monitor, Evaluate, Revise

Each utility’s situation is different and, therefore, there are a number of approaches that can be taken depending on the needs and resources of the particular utility.

Through 2010 the greatest need will be the replacement of skilled trade workers and this is identified as the most difficult group to find replacements for the retirees. “Work force planning will become more important in today’s increasingly competitive job market, as utilities compete with one another and with other industries to find employees with the right skills.” They further point out that “a comprehensive work force plan is a systematic, integrated, and continuous approach that aligns the utility’s work force needs with its strategic goals and planning process. In doing so, the organization should identify the skill sets that their current employees possess, as well as the skills that will be needed and number of employees necessary to meet its goals. This will enable the utility

to identify any gaps in skills that need to be filled. The organization will then need to develop and implement strategies to attract and retain these workers." (Emphasis added.)

Unfortunately, according to the survey, 77% of the respondents indicate that they do not have a formal work force plan for meeting their future needs. Of the 18% that do, only 8% are extremely confident in their plan's ability to meet the projected needs.

In looking at the work force analysis there is much information readily available, including the number of employees and contracted workers, salary and contracted worker expenditures, work force diversity, retirement eligibility, and location or work unit. Implementing a work force planning process can help a utility confront these challenges head on.

(6) *Chapter PSC 113, Service Rules for Electric Utilities.*

The Utility Workers Coalition provides, in the attached reference resources, an amended version of the Chapter PSC 113. The attached Chapter PSC 113 maintenance and service rules included are, for the most part, those rules that directly and immediately impact the activities of utility workers who provide service for the customers as a result of their work upon electric generation, transmission and distribution facilities.

Conclusion

"Depopulate and get rid of people," he said, "they gum up the works." These words echoed the failed business plan of Enron's number two executive, Jeffery Skilling. The business plan of Enron believed that this was required for success in the changing energy business. Unfortunately for us, many carried that banner which was inappropriate to the gas and electric utility industry, an industry vital to the functioning of a modern society. This "depopulation" drive was a critical element in the campaign to deregulate and restructure the industry and it has set the stage for the truly critical nature of the

demographic challenge facing the industry over the next five to ten years. It takes skilled and dedicated workers as part of a long-term strategic plan to make the gas and electric industry run reliably, safely and efficiently. It would be a tragedy to make Mr. Skilling's words ring true in Wisconsin. But that is the current path we are on.

The numbers of workers retiring and the percentages of those retiring in their respective utility vary. These numbers and percentages can vary by departments within a given utility. One IOU, for example, will see the retirement of approximately 36% of its line-related workers, 33% of its generation workers and 47% of its gas workers by 2010. By 2015 these percentages change to 66%, 56% and 83% respectively. This utility is currently downsizing its skilled trade's labor force! While this report has focused upon the utility industry's internal long-term labor force crisis, it is important to recognize that the skilled trades workers that are currently supplementing and replacing the utility labor force have similar issues; currently, in the dead of winter, the industry has a call to put to work 90 journeyman line technician workers, but they are very hard to acquire.

If they are not adopting Enron's business plan, then in Wisconsin it appears that the IOU's may fall into the category of utilities that do not have a formal long-term work force succession plan for meeting their needs. If they had, then they would be aggressively hiring and training the labor force necessary to meet the clear "gap" that is rapidly emerging between the work force needs and work force available to do the work. In this sense, Wisconsin's IOU's are typical; they are in the majority of utilities that haven't done the necessary homework to address the long-term needs of their companies and the industry in general. It is critical that the industry move beyond the literal hiring freeze or, at best, the incremental hiring that is currently occurring. If not, you must answer the question; "Who will keep the lights on and the gas sagely flowing?"

The UWC has identified that a significant amount of the current preventative maintenance work that is required for a reliable, safe and cost-effective infrastructure is not getting done. Much of this work is also already supplemented with a contractor labor force – itself facing similar skilled labor challenges. In addition to the essential

maintenance work, the utility industry will also require approximately \$3.4 billion in transmission infrastructure construction and upgrades over the next ten years. Further, for example, several studies have identified that one of the key skilled trades that is most problematic in terms of retirements - and the one that is most difficult to replace - is the line technician. With all of these work plans one must again ask; "Who will do this work?" Similar problems exist in the shortage of skilled workers in the areas of generation and in gas transmission and distribution. The "slow motion train wreck" is well underway.

This report, coming from the UWC, necessarily focuses on the skilled trades workers in our industry. Studies and our experience have identified this area of workers in the industry as the most immediate and most critical concern to be addressed over the next several years. Supervisory, engineering, and the senior management areas are also going to be facing a critical juncture over the next ten years.

Whatever the thinking has been in the industry, the short-term approach to strategic planning with an absence of long-term labor force succession planning must come to an end. The industry cannot simply rely on an apparent business plan that hopes someone else will do their job when they pick up the phone; nor should they shift their long-term "obligation to serve" responsibility to a third party in hopes of avoiding that duty. Such a plan is not conducive to efficiency, reliability, customer service or safety in the gas and electric utility industry. Wisconsin is not a deregulated state. The utility industry in Wisconsin needs to be questioned and forced to respond to these very serious workforce shortage concerns. If the various utilities and electric service providers are not addressing these critical issues, then someone else must step in.

The state has the ability to enforce and reinforce rules such as Chapter PSC 113 and gas rules in Chapters PSC 134 and 135. The industry must also be directed to provide a plan on how they will address this vitally important issue of long-term labor force succession planning. The state has the authority through individual rate cases or through a new and separate docket to address the critical issues before us. The state may also find other

methods to provide incentive and/or encouragement to the gas and electric industry to step up and face this challenge. The industry and the future of safe, reliable and affordable gas and electric service in Wisconsin are truly at a critical historic juncture. Action needs to take place now. The decisions made - or not made - today will impact the future of Wisconsin's economy and its citizens for generations to come.

