



Volume 13, Issue 1

IURPA REGIONAL GROUPS

April, 2003



AUSTRALASIAN
UTILITIES
REVENUE
PROTECTION
ASSOCIATION

Southeastern Utilities Revenue Protection Association



SARPA



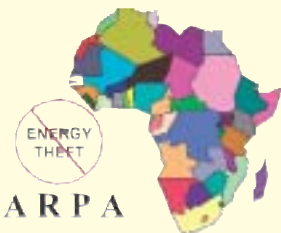
SURPA



NURPA



UKRPA
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ARPA



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REVENUE SECURITY



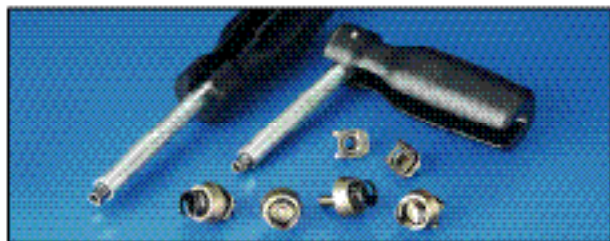
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McGard
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DIVISION



VENDORS MAKE IT ALL HAPPEN

Over the years I've grown to truly appreciate the involvement of the various vendors in our industry. When I first began attending utility meetings, I would peruse the vendor display tables examining their products and not giving much thought to the goings on behind the scenes. After all, the vendors were there to sell their products & services, right? Well, not entirely. In this relatively unique side of the utility industry revenue protection professionals have an honest concern about the effects of energy theft. I've found that investigators, analysts, coordinators, supervisors and managers truly care about what they do and the benefits they provide their companies. Vendors are no different. They also have a deep concern for energy theft. After all, they're customers too, and theft just isn't acceptable. Vendors contribute their time, energy and money to keep our business "in business". Conferences are wonderful ways we can share our experiences and learn from one another. The vendors make these conferences not only enjoyable, but more often than not, they make them possible. Vendor receptions provide the perfect setting for examining and comparing products and services, discussing issues with counterparts from other utilities and establishing relationships that assist Utilities in further developing our respective departments.

The vendors associated with IURPA and the regional groups offer their support in a variety of ways. Vendor coordinators assist regional groups in conference planning. They make arrangements for vendor display areas ensuring all vendors have the proper space and utility connections they need to show their products. They collect vendor fees, which are applied to the cost of meeting space and food. Registration



George Balsamo,
IURPA Chairman

fees to attendees are lowered as a result of vendor contributions. Vendors assist in locating speakers for regional and national conferences through their many contacts in the industry. They offer financial support to our IURPA web site, and bare the lion's share of the cost for the IURPA newsletter through their advertisements. Vendors provide articles for the newsletter, and solicit others for articles so that we may all benefit from

information derived from the newsletter. They contribute to and serve on the IURPA Board providing a true team effort between utility members and vendors. And yes, all of our vendors are dues-paying IURPA members too.

These individuals spend a great deal of time and effort with our organizations. Their jobs take them far from home and their loved ones. Sometimes an occasion is missed at home because business takes them out of town and sometimes they're just plain missed. Travel is an ongoing part of their world, and as fascinating as it can be, it can become tiring from time-to-time. Travel delays and layovers occur; poor driving conditions and breakdowns happen but we, the customer, don't see these incidents. We see bright smiles, energetic voices and an interest in serving our needs.

Having come to an understanding of their involvement, I've grown to truly appreciate our vendors. I applaud their dedication to this industry and admire their fortitude. They truly have our best interests at heart, and are there when we need them. All are willing and able to provide whatever assistance is necessary. So during your next visit to a vendor display booth at one of our conferences, don't just look at the product, look at the vendor.

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IURPA Is Now TRADEMARKED

On January 28, 2003 the United States Patent And Trademark Office notified us that our application to register IURPA as a trademark had been approved. Registering the IURPA name will help protect us from any other individual, company, or organization that attempts to use the same acronym or illegally use the IURPA name.

2003 WSUTA CONFERENCE

By JOHN CULWELL • 2003 WSUTA PRESIDENT

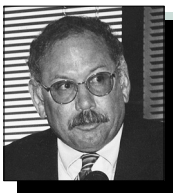
The 2003 WSUTA conference will be held August 19 through August 22 in Las Vegas, Nevada at the Palms Casino Resort. August 19 is early registration and a vendor reception.

Cost of rooms at the Palm is \$89 per night. The toll-free number for reservations is 1-866-725-6773 and the cut-off date is July 20.

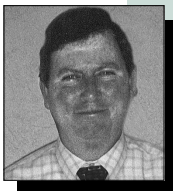
The conference registration fee is \$165 (same as last year) if paid before July 20 and \$190 after or at the conference. This includes continental breakfasts on the 20th, 21st and 22nd, and lunch on the 20th and 21st.

The agenda will be all-inclusive with experts in the field of water theft, gas theft and electricity theft participating.

Kathleen Drakulich, Sierra Pacific's general counsel, has confirmed that she will present at this years' conference. Her presentation at the 2000 WSUTA conference was considered one of the highlights.



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CLEVER ELECTRICIAN NOT SO CLEVER

By WAYNE WOHLER • REVENUE SECURITY, LOS ANGELES DEPARTMENT OF WATER AND POWER

Los Angeles Department of Water and Power investigators recently concluded an illegal wiring bypass investigation on a Northridge residence. The investigators had received an anonymous tip of possible tampering by occupant. The informant also indicated the husband had been an electrician.

This home was approximately 3000 square feet in size with a pool, spa, and central air conditioning. There was also a detached garage with the ability to hold six cars. Electric usage at this house averaged 500 –1000 KWH per month on the bills.

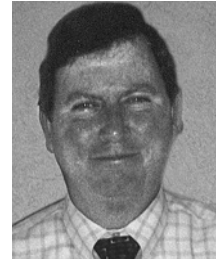
Investigators inspected the property and concluded the recorded electric usage was too low for the observed connected load at the house. The investigators had installed a check meter to monitor the actual electric consumption. The check meter indicated that the house was using 6.5 times more electricity than was recording on the billing meter!

Department investigators checked the house meter to insure that it was neither defective nor tampered with. Nothing was detected wrong with the meter. Using tap detection equipment, an illegal tap was detected approximately two feet above the meter panel. Law enforcement was contacted and a request to inspect property was obtained. Reluctantly the owner provided

access to inspect the property.

Investigators found an illegal tap made into the service ahead of the meter. What made this illegal connection more unique and difficult to detect, was the fact that the owner (an electrician) had installed a contact relay to disconnect the illegal wiring anytime the electric meter was removed or the main breaker was turned off. This allowed all of the illegally connected equipment to turn off so that it would not operate. Although the owner initially denied making the connection, he eventually admitted doing so after compliments were given to him on how professional things were connected. The owner even had a sub meter on his wiring bypass to see how much he was stealing!

Electric service was terminated. Criminal complaints were filed. The property owner has paid restitution of \$8,344.63. He has pleaded guilty to theft of utilities under California State penal code 498. Having no prior record, he has been sentenced to 300 hours of community service, \$200.00 fine and three years probation. The clever electrician was not so clever!



Wayne Wohler

CON EDISON'S YEAR IN REVIEW

By ROBERT HUCKEMEYER • REVENUE PROTECTION

The past year for Con Edison's Revenue Protection unit was very prosperous. We exceeded our goal of billing unmetered service by nearly \$1 million dollars. This achievement was due in part by a team effort of 33 field inspectors who covered the five boroughs of New York City and Westchester. In addition to our inspectors being the "Cop on the Beat," we also credit our backroom support groups for their hi-tech wizardry in utilizing all the computer systems available to identify, bill, and collect the potential revenue losses.

In the past year we instituted a number of new technologies in theft detection, all of which are computer-oriented. We are now capable of manipulating our main billing system (Customer Information System, or CIS) to identify specific usage patterns by type of business, meter, and service classification. This new enhancement is used in conjunction with Microsoft Access as we subsequently match this information to our theft-of-service tracking system, thus eliminating wasted or repetitive field calls. We are more focused on account details, which enhances our ability to identify a particular problem and /or pattern of usage.

Additionally, we have purchased a number of laptops and installed the necessary software so that we are capable of connecting via the internet directly to all the necessary systems while on customer location. This enhancement speeds up the communications process in identifying if we are aware of certain conditions that may have been set in place

by other departments. We are also able to identify all the accounts and meters in the buildings we are visiting and review billing, identify service entrance points, or retrieve phone numbers for obtaining access to a property.

With the cold winter already wreaking havoc in 2003, we will be paying close attention to details and to establishing patterns in usage for our heating customers. Our new ways of looking at our customers' accounts enable us to spot irregularities and react swiftly. Since corporate profits are always a priority, top executives in the company closely monitor our theft-of-service program. Creative ideas emerge from all participants in our group as we regularly sit and brainstorm our way to our next big theft discovery.

Whether we receive our leads via our incentive award program (responsible for approximately 33% of thefts found), or from the latest computer technology, it should be noted that the communication process is the vehicle that makes or breaks the case. We have added many new reporting vehicles to include use of the Internet for out-of-house leads, an 800 number for people to call, as well as annual refresher courses for all field personnel, focusing on their ethical responsibility to report theft.

Communication and a swift response is the key to our success. As you can see we truly rely heavily on communication as our best source for reacting to theft of services.

2003 SURPA / SCRPA CONFERENCE

By

The 2003 SURPA / SCRPA Conference will be held on June 10-13, at the Hilton in Altamonte Springs Florida. The rate for the Hilton is \$95.00 per night and honored 3 days prior to and after the conference dates. The toll free number is 1-800-445-8667 for reservations. Remind them to ask for the SURPA/SCRPA Revenue Protection conference rate. This year's agenda includes the following:

Tuesday June 10, 2003

2:00- 4:00pm Early Registration
5:00- 7:00pm Vendor Reception

Wednesday June 11, 2003

7:00- 8:00am Registration / Continental Breakfast provided
8:00- 9:00am Welcome
9:00- 10:00am Keynote Speaker-Frank Scaletta, Orlando Utilities
10:00-10:30am Break
10:30-12:00am Vendor Presentations-See the Latest in Theft Prevention Items
12:00- 1:30pm Lunch provided
1:30- 2:30pm Fraud-A Progress Energy update "Could You or Your Family Be a Victim?"
Elaine Rogers, Supervisor Credit & Revenue Recovery, Progress Energy
2:30- 3:15pm Investigation Techniques-Frank Scaletta, Chief Fraud Investigator Orlando Utilities
3:15- 3:30pm Break
3:30- 4:30pm Cable Theft & Fraud-Bill Fuhrman-Cox Cable
4:30- 6:30pm Vendor Reception

Thursday June 12, 2003

8:00- 9:00am Continental Breakfast provided
9:00-10:00am C.T. Metering-"An In-Depth But Easy Way to Check For Large Amounts of Lost Revenue"-Georgia Power
10:00-10:30am Break
10:30-12:00pm Self Contained Metering-"Is All Your Revenue Accounted For?" Georgia Power
12:00- 1:00pm Lunch
1:00- 3:00pm Bulli-Ray-"Man's Best Friend or Foe?!" Dog bite safety program, Mitzi Robinson- Trainer
3:00- 4:00pm Discussion Roundtable-"Let's hear your war stories."

Friday June 13, 2003

7:00- 8:00am Coffee & Juices
8:00- 10:00am General Business, Board meeting and elections



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City of Altamonte Springs
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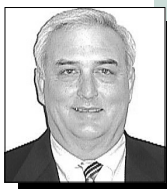
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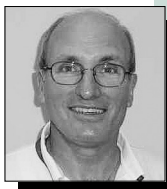
Secretary/Treasurer-Sinda Schrank
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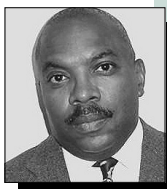
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LOSS REDUCTION PROGRAMMES

By MARM MENDEL

Of the 24 countries in the Caribbean, Jamaica is the largest English speaking nation with over 2.8 million people. In that country, electricity is provided by the Jamaica Public Service Company (JPSCo) for a customer base of over 500,000. In 2001, the Jamaican Government divested 80% of JPSCo's shares to the Mirant Corporation of Atlanta in the USA.

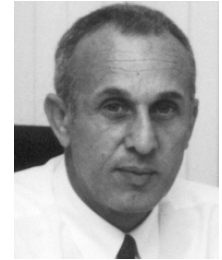
Of the 24 countries in the Caribbean, Jamaica is the largest English speaking nation with over 2.8 million people. In that country, electricity is provided by the Jamaica Public Service Company (JPSCo) for a customer base of over 500,000. In 2001, the Jamaican Government divested 80% of JPSCo's shares to the Mirant Corporation of Atlanta in the USA.



Loss is an issue for electric utilities everywhere and the Caribbean is no different. Common loss causes include meter tampering, meter by-passing and illegal use of

electricity. This occurs where unemployment is high and the standard of living is low.

The JPSCo has found creative ways to combat losses in these areas. Working in partnership with communities, the company is well recognized for its involvement with community projects. These range from school feeding programmes, support for education through the donation of computers and scholarships, disaster welfare assistance and assistance to community sport.



Mark Mendel

In addition, the company has introduced a flat rate to some communities where illegal use of electricity was common. The results have been encouraging

It is my hope to form a Caribbean branch of the IURPA. Already, IURPA members are helping to design a Caribbean Union of Revenue Protection Association internet website. It will be linked to the IURPA site.

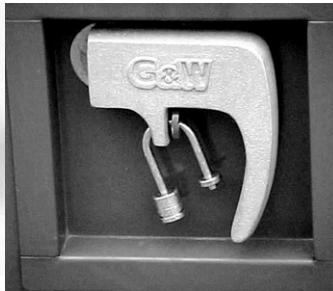
If you have an interest in working together to better address our common problems and would like to join the CURPA, please contact me at mmendel@jpsco.com.

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LESSONS LEARNED

By CHRISTINE SMITH • WE ENERGIES ENERGY THEFT & FRAUD DEPARTMENT

The call came in September 2002. The Dickinson County Sheriff Department in Iron Mountain Michigan affected a search warrant at a local farm and made what was, according to The Daily News, "the largest marijuana bust in Dickinson County's history." A We Energies crew was called to the scene when the deputies were unable to disconnect the power while disassembling the operation. The crew located an electrical bypass which was being used to power the complex, hydroponic, indoor grow operation. A few Polaroid photographs and a single amp reading were taken by the crew at the scene before the bypass was disconnected. Unfortunately, the We Energies Energy Theft and Fraud unit was several hours from the scene, and by the time the unit supervisor was contacted the sheriff's department had already dismantled the operation and secured the equipment as evidence. From the beginning we were working at a disadvantage.

The investigation began with detailed telephone interviews of the We Energies crew and the Dickinson County Sheriff's Department Detective Lieutenant who had been in charge of the scene. The three interviews revealed serious inconsistencies. One person stated all of the equipment was operating when the amp reading was taken, another stated the lights were off when the amp reading was taken. One person stated the bypass only lead to the barn, another stated the bypass also lead to the second floor of the house. Various descriptions of the equipment found at the scene were given, and a detailed inventory of all equipment operating off the bypass

was never compiled. It became apparent that criminally prosecuting this case, not to mention calculating an appropriate back bill, was going to be difficult.

Initially, the county sheriff's department reported the operation, including the bypass, had been up and running, year round, for at least five years. But, when the suspect was interviewed by the sheriff's department his confession indicated the bypass had only been in existence for several months, not years as initially suspected. We were then informed that due to the suspect's past history all charges against him would be handled federally, and the suspect would not be criminally prosecuted for the theft of electricity. All we had left was our ability to back bill the suspect for the unmetered electricity and request restitution in federal court. Or so we thought.

A very conservative back bill was calculated using the single amp reading taken at the scene and the statements the suspect made to the police during their investigation. Although our crews had done everything they had been trained to do, and the back bill had been calculated as accurately as possible with the information we had, the federal prosecutor was reluctant to request restitution because we could not prove the unmetered electricity had been used entirely for the drug operation. We were told to pursue payment of the bill through our normal collection action and civil process. What had started out as a promising case bound for prosecution became a mundane pile of paperwork.

In the perfect world where all field employees have been trained in evidence collection and information gathering, and law enforcement has been made aware of the inherent dangers associated with utility tampering the scenario would have progressed as follows. After the premise was secure the local sheriff's department would have contacted We Energies and a field crew would have been sent to the premise immediately. The We Energies crew would have had an opportunity to enter the premise before the police began dismantling the equipment to verify the electrical safety of the operation, and check for any by passed electricity or gas. Upon finding the electrical bypass the Energy Theft and Fraud unit would have been contacted directly and the field crew would have been given instruction regarding how they should proceed.

All electrical equipment running off the bypass would have been located and inventoried, and all relative technical data would have been documented by We Energies employees. Multiple photographs of the scene and detailed photographs of the equipment would have been taken. Because the equipment included timers, a series of amp readings would have been taken, as opposed to just one, to more accurately evaluate how much electricity was being used at different times of the day. Not only would the wire used to bypass the meter have been disconnected, but it would have been dug up and removed from the property at the customer's expense. Ultimately, the suspect would have been charged with the theft of the electricity and held legally responsible for his actions.

Frequently, people who are growing or manufacturing illegal drugs are also diverting electricity and/or gas. Utility



Christine Smith

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companies need to prepare their field employees, so when the request for assistance comes from a law enforcement agency the company is able to take full advantage of their right to bill or criminally prosecute a customer caught stealing services. Each utility should have clear and concise procedures regarding evidence and information collection, and field employees should be thoroughly trained in those procedures. In addition, a working relationship between utility companies and area law enforcement agencies needs to be developed. Utility companies should educate law enforcement personnel about the dangers of utility tampering, and convince them to contact their local utility immediately after a drug related search warrant has been effected and the area secured. The utility company should treat the report from law enforcement as a potential safety hazard, and utility personnel should be sent to the scene without delay to verify the safety of the electric and gas services. If a service bypass is discovered the appropriate department should be contacted at once to facilitate a thorough investigation, accurate back billing, and possible criminal charges.

When investigating a case the focus is often the conclusion: the back bill or criminal prosecution that will bring closure to the case. But, when cases do not proceed as expected the most important results can be the lessons learned throughout the investigation. As our utility's service territory grows it is no longer possible for investigators to be present at every scene due to distance, staffing or other constraints. Consequently, our unit is currently researching better ways to conduct remote investigations and foster relationships with law enforcement agencies in our service territory.

Christine Smith has been an investigator for We Energies Energy Theft & Fraud department for 4 1/2 years. Prior to joining We Energies she was a police officer for the City of Madison, Wisconsin.

2003 NURPA CONFERENCE

The 2003 NURPA conference will be held October 1, 2 & 3 at the Queensbury Hotel in Glens Falls, New York. Once again we have the opportunity to take advantage of the Adirondack Region, in New York State, for the upcoming conference. The Queensbury Hotel, in Glens Falls, New York, has been well received by attendees at previous conferences. If you have not yet experienced this event it is certainly worth your consideration. Located ten minutes from Lake George Village, the Queensbury serves as a cornerstone for elegance and acts as the "Gateway" to the Adirondack Park Region.

Hotel reservations may be made directly to the hotel by contacting them at 1-518-792-1121.

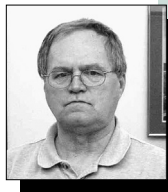
Should you wish to spend additional time in the Lake George area, either the weekend before or the weekend after the conference the hotel will honor the special room rate of \$70.00 per night. There will be no extra room charge for spouses.

This year's agenda has a variety of topics which should interest everyone. There will be a fraud certification session along with discussions on workplace violence, aggression management, AMR, plant security, information gathering & privacy laws and meter tampering lab where you can examine a variety of tampering methods. We will also offer sessions that differentiate from the norm such as problem solving approaches and understanding the newer breeds of dogs that are becoming prevalent in today's society.

Please send an email reply as soon as possible to Carol Speck at watts@sussexrec.com so we may add you to our email list for future information. Conference information is be posted on the IURPA web site (www.iurpa.org) under the NURPA regional tab and is updated periodically.



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NURPA OFFICERS

FEW CERTAINTIES, MANY DOUBTS

By LUIS FERNANDO ARRUDA • IURPA SOUTH AMERICAN LIAISON

When we try to understand deregulation (or restructuring as it is now referred to), the resulting down-sizing that is created and other factors that have an influence over revenue protection we realize that we have few certainties and many doubts. We understand that it is very important to know the level of non-technical losses in order to provide the necessary and possible investment that will provide the required actions to recover these lost revenues: herein lies the first big problem.

It is very common when we are talking about revenue protection to hear utilities speak of non-technical losses as a percent of the total revenue. Then we compare this number with the losses we have in our utility. Apparently we are doing the right thing. But as we ask more questions we begin to have more doubts. Sometimes we are comparing two very different utilities: some utilities have only distribution systems, some of them have more rural areas than others and, most importantly, the methods used to calculate (or "estimate") these losses are completely different. We know that we need to make an energy balance in order to get the total losses; we calculate the technical losses and the difference between total losses and technical losses results the non-technical losses.

Finally, everything looks right now. But as many utilities have non-technical losses less than or around two percent other important questions come to us: if we consider our energy sales based on meters which have 2% accuracy, how can we be sure about the final loss number if it is less than the precision of the metering data.

We could talk about the models used to calculate technical losses in distribution systems by utilities that have hundreds of thousands of miles of lines and distribution transformers (which have different losses during a single day and different performances depending on when they were manufactured or according to the standard they attend), but it is another part of our engineering process...

So, let's talk about one certainty: if a given utility has a good method to make those calculations (energy balance) and keeps this method for years a revenue protection area can establish the trend for non-technical losses (NTL). This benchmarking process allows for the basis to determine if corrective actions and the associated policies are effective in addressing NTL. In other words, it is more important to examine the percentage of NTL and its trend than to just know the NTL itself.

Deregulation and the effects of downsizing impact revenue protection efforts in some utilities. Without the full knowledge of its benefits these utilities believe they are spending more on their program than what their losses are. It is at this point when the Non-Technical Loss profile should be watched closely. An upward trend indicates that revenue protection efforts may need to be increased. This may require more resources for a longer period of time than would have been normally used prior to the downsizing in order to lower the NTL.

Consideration to increase revenue protection efforts then raises other issues, which include whether to use outside contractors or staff internally, how much is reasonable to spend on

this effort and for what period of time is this increase necessary. Another consideration is to look at the financial impact that originally reducing revenue protection had on the increased spending that has resulted from it.

During the last 6 years in Brazil and in other South American countries we have been watching many different movements. Investors from many countries placed their money in a deregulated market with the general expectation that there would be more efficiency, better energy quality and lower prices as a result of competition. We could see many different theories being applied but we only have an undesirable certainty: the non-technical losses in Brazil and in most of the South American countries are growing. This occurred mainly in Brazil after 2001 when the Brazilian electrical system failed. More than 90% of our energy comes from hydroelectric power plants. We did not have enough rain during the 5 years prior nor did we properly invest in our revenue protection efforts. Everyone was forced to face strong rationing rules.

At our next IURPA conference in Chicago I hope to bring you more details about this matter and, through discussions with my colleagues, I hope we can get more certainties than doubts.



Luis Fernando Arruda



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META And IURPA To Host Joint Conference

The Midwest Energy Theft Association (META) will host the 2003 joint conference with IURPA in Oakbrook Terrace Illinois. The conference will be held July 22-25. Oakbrook Terrace is a northwest suburb of Chicago conveniently located 11 miles from O'Hare airport and only 18 miles from Midway airport and downtown Chicago. The site of the conference is the Drury Lane Conference Center, which is sandwiched between the Hilton Suites and Hilton Garden Inn. We have negotiated steep discounts with both hotels and both have free parking.

Tuesday July 22nd will be early registration as well as a vendor reception. All attendees are encouraged to attend not only to enjoy hors d'oeuvres and beverages but also to pick-up your conference materials and most importantly meet with the many vendor representatives that once again help make the conference possible. Earlier in the day there will be an optional golf outing.

The actual conference is scheduled to begin Wednesday morning and will conclude around 12:00 noon on Friday. Although this gives everyone a chance to travel home you are encouraged to stay for an additional day or two and take in all that Chicago has to offer. You will find yourself close to challenging golf, fine dining, all kinds of expensive shopping, and numerous cultural activities. You are minutes away from a train station that can take you to the heart of downtown Chicago where you can experience the Shedd Aquarium, the Museum of Science and Industry, and the Field Museum. July is a great time of year to experience Chicago.

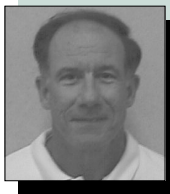
The conference itself will not only address the traditional topics of meter tampering and investigation techniques but will cover some other issues of interest such as credit and identity fraud, theft of cable TV (the same people who tamper with our service are the same ones that steal cable as well), interviewing techniques, effective case prosecution, and digital photography to name a few. Everyday there will also be



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META OFFICERS

an open forum where we will facilitate a question and answer session to discuss any and all issues any of us may have. We also plan to spend time discussing our failures. We all can learn from each other's mistakes and hopefully by listening to each other we can prevent similar mistakes from taking place at our own companies.

For more details on the 2003 joint conference, and to obtain registration information, please visit the IURPA website at www.iurpa.org and click on "Conference Info". We hope to see everyone there.

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KEEPING AN INVESTIGATION TOO SECRET CAN COST YOU

By TIM HOPPER • META PRESIDENT

There was a point in my life when receiving a package delivery was an exciting event. I remember as a young boy anxiously waiting for birthday and holiday gifts to be delivered from my grandma. When I was a teenager it was a thrill to come home from school to see the latest selection from the record club sitting on the kitchen table. I fondly recall the "Beer of the Month Club" deliveries I would get in college. Oh how times have changed.

A short while ago I was diligently working at my desk when my clerk walked in and announced "I have a package for you". I didn't recognize the return address, and I didn't recall ordering anything, but after careful examination for signs of anything suspicious I opened up the package. I was perplexed to find that the box contained a check-meter. A used check-meter. My initial thought was that this must be a misdirected unit coming back from being serviced, or a unit no longer needed in the field. The note at the bottom of the box quickly erased those thoughts. "Tim, this contraption was found attached to a customer's drop wire. I don't know what they were doing with it so you may want investigate them for possible tampering." My initial anger to the disruption of an ongoing case soon subsided when I stopped to think about what just happened. A field technician was observant enough to notice a small device connected to a customer's service. He took the time to investigate. When he deemed there was no safety hazard and that the equipment did not appear to belong to the company he took the time to remove it and ship it to me. Although his actions jeopardized an ongoing investigation, his intent was to make me aware of a potential theft of service. Obviously I would have preferred that he leave the unknown device in place and simply photograph it and then contact his supervisor and me. The investigation would still be ongoing and it would have been notice to me to be sure that the field technicians were familiar with a check-meter and what to do if they ever encounter one.

The case began when a meter reader was at the premise of a commercial customer obtaining the monthly read. The reader was removing the demand seal when they noticed a foreign substance on the seal. Upon further examination they found that the demand seal had been cut and glued back into place. The reader left the situation as they found it and reported it to their supervisor. The situation was then forwarded to my attention as well as our Corporate Security group. The Corporate Security investigator assigned to the case decided to have a check-meter installed. From past experience we know that judges in our court system like to have at least 3 months of data when we bring criminal charges against someone for tampering. The check-meter was installed and the usage was being monitored. Like most investigations this one was kept on a need to know basis. The check-meter was installed and only a few people knew about the case. When the field technician removed the check-meter the case was not ruined, but it easily could have been. Did the customer see the tech up on the pole? Were they paranoid when they saw the tech remove the "contraption"? In this particular case we got lucky.

As a result of this incident we are taking steps to be sure that all field supervisors meet with their techs and educate them about check-meters and also instruct them that in the future if they find any foreign equipment in the field to contact their supervisor. We are also going to be putting a sticker on our check meters that will have our company logo (so even if an employee is unfamiliar with what it is they will see that it belongs to us) and the message "do not remove". Hopefully between our education campaign and the stickers on the equipment we will never jeopardize an ongoing investigation.



Tim Hopper

This incident, as well as recent error plots, has made me leery of unsolicited packages. I no longer get packages from my grandma and haven't been a member of the "Beer of the Month" club since college. A few weeks ago my hopes were high when my wife and I returned home to find a package on our doorstep. Although the holidays have passed and my birthday is many months away I did get excited to see my name on the package. As I picked it up my wife took it from me and said that it was hers. I objected by pointing to my name on the label. She claimed that it was a new sweater she had ordered. I said that that it couldn't be, after all the package was addressed to me. She replied, "Oh, that's because I used your credit card. Thanks honey!"

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"ALERT METER READER TAKES A DIFFERENT APPROACH TO READING THE METER"

By GARY SIGNORELLI

Occasionally, we have some very interesting cases to investigate here at Progress Energy (formerly Florida Power Corp). The case scenario that I'm about to reveal concerns meters that become inaccessible through the customer's intention of keeping the Utility away from the meter to effectively steal energy.

A relatively new Meter Reader in the Walsingham Operations Center, thinking "outside the box", was alerted to the possibility of a reoccurring theft when a customer decided to start locking his gate in hopes that the Meter Reader would just stretch his neck and read the meter from the neighboring yard.

Low consumption patterns began to emerge on a monthly basis. It seemed that the customer was doing something, but the Meter Reader couldn't see the problem standing 20 feet away from the meter. The meter was subsequently exchanged by Metering Services (when the customer opened the gate), but consumption patterns stayed low.

Now, the Meter Reader thought of getting to the meter in another way. He became aware that he could use the backyard on the other side of the suspected home; after all, no fence separated the two yards.

Even though the Meter Reader began to get accurate readings, he noted something was "going on". The collar lock

around the meter seemed intact, so the Meter Reader decided it was time for the Revenue Protection Department to investigate. He provided excellent details on how to get into the Suspect's back yard without being detected.

After some surveillance and timely investigating, the meter was photographed in an inverted position, then right side up, then inverted again, and then right side up again.

The customer couldn't get the meter out with the lock on it, so he would pull the meter and cover out as much as possible, rotate the meter to the upside down position for several weeks, thus subtracting many kilowatt hours from the meter. The securing latch inside the cover had been broken to get the cover out far enough for clearance.

Based on his admission and kilowatt hour history, we have corrected the billing and made him responsible for four (4) years of back-billing equal to 83,428 kilowatt hours or \$7,036.20 in stolen energy and \$364.85 Investigation Costs.

The customer has paid \$3400, but failed to pay the balance. The account is without electric service at this time and a lien was placed on the home he owns for the difference.

We commend those Meter Readers like the one above for looking to Revenue Protection when the customer installs obstacles in the way of getting close and accurate readings.

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NOT A PANACEA

BY MARK GRAVELINE • GENERAL SALES MANAGER, INNER-TITE CORP.

AMR has its benefits. It is beneficial for utilities and their customers because the technology gives the utility additional tools and complimentary options for meter reading, customer billing, and power management. No one can argue that manual meter reading operations are costly and outdated. A comprehensive AMR program can provide the power company with valuable and extended information. Deregulation of power industries has stimulated increased demands on performance. Open competition has essentially raised the bar for utilities and they must now compete for their customers. AMR certainly has a place in this performance-driven industry where it affords the power company the valuable tools needed to provide outstanding customer service. AMR has its benefits; but it is not without its limitations, risks, and shortcomings.

The advantages of AMR do not come cheap. A typical AMR electric meter is roughly twice as expensive as a conventional meter. The cost of the meter is the most notable expense; but, for a true AMR program to be established there must also be other systems in place to receive, process, and make proficient use of the data. Power companies struggle to justify the cost of such an inclusive program. Typically utilities reallocate funds budgeted for other programs (e.g. revenue protection) to subsidize AMR implementation.

The benefits of AMR have yet to prove that they outweigh the need for meter reading fleets. A complete AMR program should decrease the number of meter readers needed; but only if that program incorporates an effective electronic data transfer system. A recent survey conducted by Inner-Tite Corp. reveals that a number of utilities with large AMR deployments still use the meter reader to retrieve the data. The meter reader travels to the consumers and conducts the automatic reading, however, he no longer needs to leave the vehicle. But, most importantly, the observation concerning the physical condition of the meter is no longer conducted.

AMR has its benefits but doubts continue about safety and security. For years the meter reader has been referred to as the 'first line of defense' against meter tampering and theft of energy. They have been the eyes of the utility, taking readings and looking for tampering attempts. Now that the meter reader is no longer physically visiting the meter, tampering and attempts at current diversion may go undiscovered.

One of the more publicized features of AMR meters is the tamper alarm. This alarm signals when the meter is inverted, tampered with, or disconnected thereby alerting the utility to take immediate action. Proponents of AMR suggest that tamper detection alarms justify the elimination of locking programs. However, Inner-Tite's survey mentioned above identified uncertainty about the value of tamper alarms. Of the util-

ities surveyed, many reported high numbers of tamper alarms (some as high as 6400 per month). Of those tracking the tamper alarms, high incidences of false alarms were reported, so many that the alarms are ignored. Others do not even track the tamper alarms because they are too frequent or they simply do not have the resources for investigation; returning to more intricate and remote methods of tamper detection (i.e. change in usage and customer profiling).

Security and safety should not be compromised. Inaccurate tampering alarm systems and the elimination of the physical visit result in limited tamper detection and prevention. (Homes and cars have alarm systems, but that does not mean that you do not lock your doors!) Relying on remote automatic tamper detection is insufficient. Attempts to divert current must be dissuaded. Meter sealing and meter locking programs should be maintained or expanded to protect the AMR investment. With a secure meter you can eliminate the guesswork of false tamper alarms, secure the costly meter from tampering and vandalism, and ensure public safety by limiting access to the meter enclosure. Locks for AMR meters are a sound security and safety investment. An AMR meter-locking ring is an inexpensive solution and meter-sealing programs are also an effective deterrent. A high visibility color-coded tamper resistant seal can be examined from a distance. A secure meter sealing and locking program continues to be a worthwhile investment.

AMR has its benefits. It can be a highly effective and profitable means for obtaining useful and accurate data and exists as a tool in the ever-increasing competitiveness of energy markets. But, AMR is not a panacea. It does not justify the elimination of a securely locked meter or a properly sealed meter. It should be noted that an alarm is simply a signal; but, a seal is a device that secures, and a lock is a device that restricts accessibility. Remote uncertain indication that tampering may have occurred is not completely practical. It makes more sense to make the effort to restrict theft attempts by being proactive through planning and preparing for problems before they occur. Waiting for pilfering to take place and then reacting is inefficient and can prove costly and dangerous. Discouraging tampering in the first place by locking the meter is the prudent approach. The investment in AMR has its benefits by providing added value; nevertheless, security and safety must not be sacrificed. Protect your investment, protect your customers, and protect your revenues. Sealing and locking must be considered more than ever as AMR deployments expand throughout the world.



Mark Graveline

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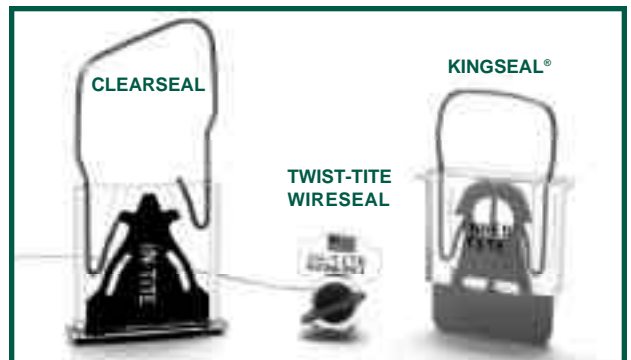
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