



Volume 23 Issue 1

April 2013

## WASUTA/IURPA JOINT CONFERENCE THIS SUMMER IN LAKE TAHOE (See Page 8 for Details)



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*From the Chairperson*

**A**s I sat down this weekend to compose this article for the Spring Newsletter I realized that for the first time in a month I was not working an emergency response due to weather or on call for one. During the month of February I have spent more time responding to the power restoration process than working on my revenue protection work. Yes, I am waiting for spring to arrive!

We are Revenue Protection Professionals and darn passionate about our work. We work extra hours and do whatever it takes to get the job done. No rock will go unturned in our quest to detect theft and find culprit responsible. Then a disaster strikes an area and our jobs drastically change. We are called upon to work each of our utility company emergency response plans to ensure the public is safe and to restore utility services that are vital to the quality of life. We leave our every day jobs behind and put our effort into restoring service to our communities. When we are called upon for the emergency work many of us leave our homes for long extended work shifts and at times for days if the weather or damage prevents us from getting home. Most of us live in those communities that



Pat Uhlman  
IURPA Chairperson

have sustained damage. We may be utility workers but we are also members of the public that are affected by the damage and loss of service. We leave our homes and go to work because we are a critical part of the public safety response. We leave our families at home to take care of any of the damage sustained, plow the snow, get the trees off the house and deal with the outage. I know from personal experience the struggle of going off to work to do what we are all trained and expected to do for the public and at the same time worrying about family and our homes.

*We are Revenue Protection Professionals and darn passionate about our work.*

After we complete the restoration of the services to our communities we then shift our efforts to providing mutual aid to other areas affected by the disaster. No matter what the circumstances, there are always companies and utility workers willing to leave their families and communities for days or even weeks to assist in the vital work of restoring service to other areas that have been hit hard by the storm. Mutual aid utility workers may become heroes to the communities they help out but I think that our families are unsung heroes as well. At times I think we may all take for granted the sacrifices our family members make taking care of the home front so we can do our jobs.

Our day to day revenue protection jobs are important to our companies, to our customers and the general public. How many times are we all called upon to stop doing our daily work, leave the comfort of our homes and communities to assist in the restoration of service without giving it a second thought? This is why I would like to acknowledge all the Revenue Protection professionals who answer the call when there are emergencies to do the work necessary to restore service following a disaster. You should all be proud!

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“CHAMPIONS”

By DAVID WHIDDEN, UNITED ILLUMINATING, ORANGE, CT

Well. It happened again the other day and I'm sure many of you have experienced this. Our revenue Protection Department had prepared a complaint for one of the local police agencies concerning a couple who had been pinning their meter for 7 years and the arrest took place without our knowledge and on a holiday. In effect, we were blindsided! Blindsided you ask. How so? The police acted on our complaint and the couple was arrested. Who could hope for better results except for restitution of the forty two thousand dollars (but that will come with time). You see, the money is important but so is the media coverage that the arrest can bring. Often we make a case where we know we're probably never going to see a dime but if the press coverage is good then it's still worth it. If I know in advance that an arrest is about to be made I made sure to prepare an executive summary e-mail with all of the details for our management (and one gentleman in particular). You see, this gentleman is what we call our "champion". If you've ever taken "six sigma" then you know that you can walk the process all you want and fish bone diagram said process and identify where things aren't working but if you don't have a champion to support the changes you may as well not bother. In this case, because of the timing of the arrest and my failure to get the e-mail out in a timely fashion the coverage wasn't that good. I still sent the e-mail out (even though it was after the fact) with an explanation and an apology for the late response. Our champion recognized that even though we had only gotten coverage from two small local news organizations that this was an opportunity to get the word out regarding theft of service and our company's approach to the problem. He urged our media representative to reach out to a local newspaper and offer an exclusive story about this arrest and what went on behind the scenes. It worked and the coverage after the fact was much better. In this day and age when all of us are tightening our belts and reducing our costs you can't pass up a little free publicity. I've heard that a full page newspaper ad goes for somewhere around fifty thousand dollars so there's a savings right from the start. The key is communication. Keep the people who defend your departments' existence in the loop. Speak with passion about what you love and soon it will become a passion for them as well. You owe them that much and who knows. It may lead to a bigger budget next year.



David Whidden



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**2013 NURPA FALL CONFERENCE & TRAINING SEMINAR**

- Date: September 18, 19 & 20
- Location: Queensbury Hotel, 88 Ridge St., Glens Falls, NY  
1-518-792-1121
- Room Rate: \$109 per night before July 19  
Upon availability after July 19
- Registration: \$200 - Meal Package is included.

Registration will be on  
Wednesday, Sept. 18th from 1:00 - 4:00 pm  
with the vendor products and services display  
from 4:00 - 6:00 pm.

**Please note that we can no longer wait for last minute registrations. The hotel is reserving space that would otherwise be rented. To avoid penalty fees, we **MUST** have conference registrations AND hotel registrations completed by July 19th otherwise we will be forced to cancel this conference.**

Please make room reservations directly to the Queensbury Hotel.

**\*\*\*\*PLEASE MENTION “NURPA” AT THE TIME OF REGISTRATION TO ENSURE ROOM AVAILABILITY\*\*\*\***

A formal agenda and registration form will be available in the NURPA section of the IURPA website under the Conference tab.

## PRESENTATION AT ITRON USER'S GROUP CONFERENCE, SAN ANTONIO, TX

BY KURT ROUSSELL, WE ENERGIES, MILWAUKEE, WI

Greetings from the "trying to retire" member of the Midwest Energy Theft Association. For those that care, I've successfully survived heart procedure number 5, and I'm still hanging in there. I've been keeping busy, and still trying to stay abreast of the Revenue Protection (RP) happenings.



Kurt Roussel

I was fortunate enough to present at the annual Itron User's Group conference held in San Antonio, TX. I did a presentation on the use of data analytics for revenue protection, and I believe that it was well received. There's a tremendous amount of data available from today's smart meters, and it's through the use of this data in combination with the traditional tamper signals that will produce the "smart leads" that a Revenue Protection (RP) Department needs to minimize wasted field trips. I spoke of the current trends in data analytics by company's such as Data Raker, Detectent, and Itron, as well as the in-house development of analytical algorithms.

But first, I have to admit I was amazed by the attendance at this conference, while yet, the regional RP groups have had to cancel their conferences due to lack of attendance. This 4+ day conference had over 700 participants, with a registration fee in excess of \$1200, plus \$200 per day hotel rooms. Yet, our regional groups are having attendance issues at a \$250 conference fee and \$100/night room stays.

Paul Unruh of ComEd (Paul.Unruh@ComEd.com) and I are still seeking motivated people to put together a Midwest Energy Theft Association Conference, and hope to host the IURPA conference in the future.

There was another RP presenter from a western gas utility, that everyone there told me to go to because it was "the best" they've ever seen, and it was "amazing." This I had to see. The presenter gave an "IURPA worthy" presentation on gas theft, however, it was nothing that caused me to raise an eyebrow. There were bypasses and meter tampering that we have all seen thousands of times before, yet, the audience "ooooohed" and "aaaaahed" at each photograph. I started asking myself, "who are these people?" They acted as if this was the first time they've ever seen anything like this.

Apparently, the vast majority of these people are the

decision-makers of your companies involved in the transmission, distribution, smart-grid, and procurement end of the business. I did not see any other identifiable Revenue Protection people in attendance. Zip, zero, nada.

This makes me think that our members are not properly showcasing the value of Revenue Protection to the right audiences in their respective companies. This is a must if Revenue Protection is going to thrive in these companies that are always looking for something to cut to save money.

I believe this is why Revenue Protection people don't get to travel to these mega-conferences, or even get the minimal funding required to attend our regional Revenue Protection activities.

*...data analytics is truly the wave of the future. It can protect your utility from utility theft and from fraudulent claims of civil liability.*

I did however come out of the conference with a great "take-away," and learned something about the Itron gas modules. The use of data is truly the wave of the future.

There was a gas explosion at a million dollar home in Georgia. The explosion was huge, and damaged several other nearby million dollar homes. Of course, in the eyes of the "victims," the gas utility was at fault. Who else has deep pockets except the utility? However, the gas utility did it's homework into the customer, and discovered some anomalies. The customer's car collection was not at the property as normal, nor was the customer's dog. He decided to take the dog to work that day. Hmmm.... suspicious.

Further investigation into this customer revealed some financial problems due to the failing housing market, he had lost his job, etc., etc. They started to smell a rat.

Due to the explosion, the home had been reduced to matchsticks. After conferring with Itron, they needed to find the AMR gas module. Upon finding it, they conducted a forensic investigation into the data housed in the module. Apparently, the module stores valuable usage history, but

at this point in time, it was simply a bunch of "0's" and "1's." Itron engineers scrubbed the data housed in the module, and were able to ascertain the exact flow rates and times. They determined that a free-flowing gas line of 3/8" in diameter would have the same flow rate as had occurred prior to the explosion.

Investigators painstakingly went through the rubble, and found the gas manifold used to distribute the gas throughout the home to its multiple kitchens, stoves, fireplaces, etc. There, they discovered an open 3/8" gas line to an add-on device in the house. Bingo! The customer had created the leak. This relieved the utility of any responsibility for the explosion, and subjected the customer to personal civil and criminal liability.

After this incident, Itron has added to their software the capability to extract the same forensic data in an easy to use manner.

As I've said, data analytics is truly the wave of the future. It can protect your utility from utility theft and from fraudulent claims of civil liability. Just another selling point to your corporate decision-makers as to the value of the work done by Revenue Protection.



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**Is Your Utility Protecting its Revenue Stream Adequately?**

**US Retail Electric Prices, 2003-2005**  
Nationwide Average

**Gas & Oil Prices Soar**  
Americans Cry Out, But Are Those Cries Falling On Deaf Ears?

**Record temperatures drive energy use to all time levels**

**Record temperatures pushing energy consumption to all time levels**

**Washington Officials Say The ...**

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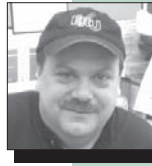
**WSUTA / IURPA  
JOINT CONFERENCE 2013**

Date: August 19 - 22, 2013  
 Location: Embassy Suites  
 4130 Lake Tahoe Blvd.  
 South Lake Tahoe, CA, 96150  
 1-530-544-5400

Attention Revenue Assurance Professionals! This year's WSUTA/IURPA Joint Conference promises to be one of the best values of 2013 for your department. Western States Utility Theft Association is happy to announce that the WSUTA/IURPA Joint Conference, August 19th - 22nd, 2013, at the Embassy Suites Hotel in South Lake Tahoe, CA is already just 5 short months away. Now is the time to budget time and money for your department to attend, now is the time to plan your transportation and now is the time to sign up!

Information regarding registration, hotel, and transportation can be found on the WSUTA tab of the IURPA web site. An agenda is available as well.

This will prove to be a very informative and worthwhile conference. We hope to see you all in Tahoe!



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## COMMUNICATION IS THE KEY

BY LORENZO McDOUGLE, PROGRESS ENERGY FL

**T**rying to settle on a topic for this newsletter was no easy task. Initially, my thoughts went towards the history of revenue protection. I was going to create a time line including early examples of theft and pioneering departments. I really had a plan of action, but encountered one small problem, not enough information readily available to support it.



Lorenzo McDougle

highlighted on a company website, stickers on company vehicles, bill inserts or a 1-800 tip line?

One excellent example of communication between a utility and its customers is Northwestern Energy’s Meter Tampering and Energy Theft web site. This site gives anyone a brief synopsis of meter tampering and some of the dangers associated with it. It also allows customers a chance to give a brief description, provide an address, and any names of suspected offenders.

In conclusion, the theft of service problem is larger than the general public realizes and is bigger than any individual department or company can address. As a relatively new investigator, I can personally attest to knowledge I have acquired from being an active member in IUPRA which includes regular attendance at regional and international seminars sponsored by this publication.

*How effective is the communication between customer and the utility regarding energy theft?*


According to a 2007 article in the PowerGrid International newsletter written by Steve Eckles and Skip Clark, “In 1899 The Association of Edison Illuminating Companies addressed the problem of tampering with screws that adjusted meter damping magnets.” This was one of only a few mentions of early history of energy theft I ran across during my research. Unfortunately the history of Revenue Protection will not be told during this newsletter.

Instead I thought about some of the major differences between the 1900’s and today. One significant difference would have to be in the area of communication. Today we can log on to a multitude of electronic devices to easily access information pertinent to any subject matter.


I began to contemplate. How effective is the communication between customer and the utility regarding energy theft? Are we effective educating the public on how energy theft affects the rising cost of the way we do business? Does our industry encourage reporting any signs of tampering or possible energy theft? I am sure we all have different answers and opinions about the topic.

I personally believe communication is encouraged by education. Additionally, when the public is informed regarding the issues of energy theft, it only increases the chances of reporting it. What motivates the average person to report incidents of suspected energy theft? Could it be


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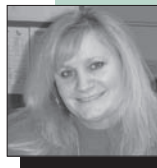
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## THE 2013 SURPA/SCRPA CONFERENCE

As the New Year approached I had the commitment of being the new President of SURPA. I was put to the challenge to spear head the 2013 Conference for SURPA/SCRPA.

The 'theme' for this year's conference is centered on AMI technologies and the impacts they have on revenue protection operations. This year's conference committee has been working diligently to bring interesting speakers to the table. I believe we have achieved that. There will be several utility case studies and presentations regarding AMI deployments and impacts as well as local law enforcement representatives discussing the link between narcotics and utility theft. We may even have a legislator from Florida come and speak to us; I believe that would be a first that I am aware of.

We listened to your request to have the conference somewhere besides Orlando or Cocoa Beach. We have found a great location for the conference and West Palm Beach was selected. Of course cost is always a key factor, so we choose the Marriott and through negotiations we were to obtain a great rate for our guests. We realize the economy

is still sluggish so we were able to keep the conference registration at the 2011 price.

On behalf of the SURPA/SCRPA Conference Committee we hope to see you all of you at the conference on June 11th-14th 2013. Please visit the IURPA website for agenda and registration information.

Thank you for allowing me to serve you.

Jorge Cermeno

**PLEASE COME!**

**SURPA/SCRPA CONFERENCE**

**JUNE 11TH - 14TH, 2013**

**WEST PALM BEACH, FLORIDA**

## GROWING A LOAN

By ITZICK MICHAELI, REVENUE PROTECTION MANAGER, ISRAEL ELECTRIC CORP.

Attending the IURPA conferences for nearly 12 years, made me fully aware of the "Grow houses" syndrome and it's linkage to the electricity theft problem.

Whenever I presented the photos and videos of the vast and fully equipped grow houses, my audience was astonished, but mostly expressed beliefs, that this syndrome will never reach Israel on a big scale. Even when I talked with police officers about the grow houses, and offered to share my knowledge and large collection of presentations, videos and written materials, I was courtesy rejected.

During the last 3 years, the police was constantly introduced to a growing number of grow houses exposed in various parts of the country.



Itzick Michaeli



Israel Electric RP units, have usually learned about the grow houses raids from an internet article or listening to the news on the radio. Only then, our revenue protection investigators were sent to the premises to take a close look.

Nearly every visit was successful.

I kept talking to the police chief investigators about this issue, and warned them about the safety hazards regarding unsafe electric facilities and the presence of water and possible booby traps in the grow houses.



Again and again I asked, to let our investigators join forces with the police raiding team. I clarified the need of our RP investigator to be present at the grow house during the raid, in order to eliminate the electricity hazards, look for a possible electricity theft and make an inventory of all the electric equipment present, vital for

fully calculating the amount of stolen electricity that was used while growing the cannabis plants.

The police finally listened.

A few weeks ago, officers of the central unit of the Tel-Aviv police, raided an apartment in the heart of Tel-Aviv, accompanied with our Revenue Protection team, and exposed a giant grow house.

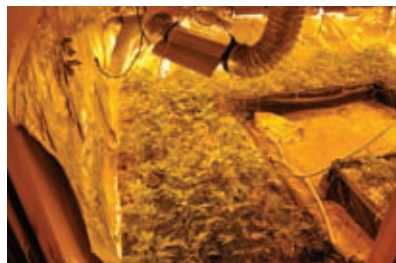


The investigation started, when a woman arrived at the police station, and filed a complaint against her fiancé, who disappeared before marriage, after borrowing 25 thousand US dollars for investment in an international project.

The fiancé was arrested on suspicion of money invested in another project, that turned out to be a hydro cannabis grow house, in the heart of Tel - Aviv.

The Investigation and questioning squad, exposed that the man had rented the house and turned it into a hydro grow house, in a scale not previously seen in the country. He looked at the needs of each laboratory room - one room for sprouting, a large planting and more. What struck the detectives that raided the apartment, was the fact that the man was able to establish a special filtration system, which cost thousands of dollars, for neutralizing the unique strong smell of marijuana.

The fiancé is also a suspect for illegally tampering with Israel Electric equipment, stealing electricity worth 50 thousand US dollars.



During the raid on the apartment itself, about 50 pounds of marijuana were caught and a sophisticated laboratory equipment, including air blowers, heat lamps, timers and more.



The suspect, aged 35, was arrested, and will probably spend a few years in jail, while his fiancée, will patiently wait for the return of the 25 thousand US dollars "International Project" loan.



# ELIMINATE ENERGY THEFT

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## POWER THEFT - WILL IT BUILD DARKNESS IN INDIA?

By G. SREENIVASAN, INDIA

India, the largest democratic country of the world, provides shelter to more than 100 billion people. It is home to three times the population of the US though geographically only one third of it. The infrastructure has developed enormously since its independence in 1947 but, even now it has many villages which do not have electricity. Uninterrupted power is dream for most of the population. In this scenario, strange it may sound about 132 Billion units of electricity is pilfered in India during 2011-12.



G. Sreenivasan

About 70% of population of India still lives in rural areas where agriculture provides the main livelihood to the majority. Many people do not have electricity supply here. Even when it is available, supply of electricity is erratic. When a utility starts providing 24 hrs power supply to certain area, it finds a major place in the newspaper. The Ministry of Power, though announced 'Electricity to all by 2012' as its objective, could not achieve it so far.

People have to wait for hours to get the electric supply restored once a snag develops somewhere. People in the rural area seem to have accepted 'no power' as their destiny or fate. Development of energy sector does not take place in tandem with the increasing demand and ever spreading menace of Power theft has worsened the situation.

The rapidly growing population and rising urbanization has put great stress on energy sector. India is power stressed. Increasing vitality of economy is not matched by similar

vigour in the Power sector which is yet to wake up to the 21st century challenges.

It is a fact that installed capacity has recorded growth. From a mere 1713MW installed capacity in 1950, it has risen to about 210936MW by 2012. About 40% of Generation capacity comes under the states, 30% under the Central Government and the rest in private sector, which is now substantially increasing its role, thanks to new power policies of the Government that gives increasing thrust to Mega projects with private collaboration. Vertically integrated State Electricity Boards and private utilities exist in Indian power sector where electricity is a concurrent subject as both the center and state governments have a say in evolving direction and guidelines. But it is sad fact the power theft has not been given any importance in the scheme of things.

India has approximately 10% shortage in energy demand and the peak demand deficiency in some states is nearly 25%. About 80% of the villages are electrified but it doesn't mean that all households are benefited.

The Transmission and Distribution losses are restricted to around 10% in better managed utilities in the developed countries. Of the every 100 units generated in India, 35 units are lost on an average due to technical and non-technical losses. This is a staggering figure of 77% in some states! This sorry state hinges as much on inadequate development of transmission and distribution lines as on other factors including Power theft and irrational tariff structure.

Raising tariff even for good reasons may not go well with the people. The distribution companies take care not to antagonize the public as they know the proclivities of the public. People are happy if a utility charges less and ready to overlook the poor standards and service they receive. This is the basic attitude of the middle class of the Indian society which forms the majority of electricity consumers. Perhaps this might have prompted to play safe by keeping current charges low thus making it difficult to go for the necessary upgrading of lines and renovations which requires huge investments. It is a sad fact that the Power sector are concentrated mainly on increasing generation capabilities resulting in increased capital cost (total investment in power sector in during 2007-2012 is expected to be about \$ 210000 Million) rather than loss reduction exercise which includes implementation of a mechanism to thwart power pilfering.

The distribution loss in India is increased by 432% over a period of about a quarter of a century due to the reasons explained above. No country can claim a fair position as far as



New Delhi, India

losses are concerned. The approximate cost of the distribution loss for the last quarter century comes to around \$100 Billion. India has adopted the European system of drawing more Low-Tension lines, thanks to the British rule, which passed on certain technical legacies along with culture and arts!. Many European countries are very small, even smaller than majority of Indian states. Hence their distribution loss is considerably low.

How have we reached here? Theft of energy is the major singular cause of all disorders and problems in power utilities. The money value involved in theft is about \$4.5 Billion dollar i.e., about 1.5% of GDP as per the statistics of the World Bank, few years back. Poverty drives many to steal electricity and they form a majority, while a few consider it as a white collar theft. Delhi, the capital city, stands out as the worst case of power theft. As much as 45% of the power generated is lost in the capital even after 3 years of private participation and almost 20% is lost due to power theft. What stops utilities from eliminating Power theft? Vested interests of the stake holders, consumers, utility employees, poor enforcement of law, habit of utilities to compound the power theft cases, prolonged litigation and, of course, the socio-political situations.

The poor performance of state owned utilities in reduction of loss is due to weak accountability and poor governance and inadequate investment. They have little incentives to improved performance and any hard work goes unappreciated. Private participation has raised hope of better efficiency and accountability. However, it turns out that privatization of power sector is not a panacea for eliminating power theft.

India is world's sixth largest energy consumer, accounting 3.4% of global energy consumption. Due to its economic rise, the demand for energy has grown at an average of 3.6% per annum over the past three decades .Theft of power has shown upward trend and touches to 1.5% of GDP of India. Even after engaging the Central Industrial Security Force (CISF), Delhi continues to enjoy the status of capital of Power theft in India and here even 30% AT&C loss is considered as fair. The problem of corruption and vested electoral interest have prodded authorities to turn a blind eye to theft of power and many go Scot free if they are very close to "power". The erstwhile Delhi Electric Supply Undertaking was fed up with Power theft at the connivance of employees. Now the power distribution has private participation. When the new power companies have started conducting surprise inspections to detect power theft, the unscrupulous people have shown signs of panic.

It is estimated that about 777 Million units of electricity is



Steel Furnace in India

being pilfered in Hyderabad city, the cyber capital of India, in a year alone. The cost works out to \$ 75 Million .In some part of the city designated as "sensitive," less as 50% of the consumers pay electricity charges,

even though thousands of electricity meters are installed on poles. Here, professional power theft perpetrators are available who perform tampering of energy meter either permanent or temporary nature.

The Power sleuths in India has the credit of detecting more than 75 varieties of high-tech Power theft in India in Electronic meters, though these meters are claimed to have state-of-the-art technology. Remotely operated Power theft, Frequency manipulation, Theft using Electro-static discharge (ESD) on energy meter, Harmonics and other spurious signal injections, umpteen methods of hardware tampering on energy meters are few methods to mention.



Tube well in the village.

The feeders of a Sub- station in Musafar Nagar, a city in North India were tampered with a remote operated shunt. The Substation was feeding power supply to steel furnace factories nearby. The raid was conducted under the leadership of the Minister and they found energy meter- not at the consumers' premises, but at the Substation- was tampered with modern-day technology, reminding us the adage that 'fence itself eating the crop'. This may be a joint

effort of many who wanted to sabotage the energy audit system also.

In Punjab, Power theft is rampant in border districts especially for operation of tube wells and steel re-rolling mills which are current intensive in nature. Unfortunately, any officer who puts an effort to tackle this menace invites transfer, harassment, victimisation and a host of troubles. Farmers have been provided with subsidized or free electricity through out the country and it is one of the zones where electricity theft and misuse are maximum. In the state of Punjab, when the technicians of utility went to attend a fuse off call from a consumer, were surprised to find that even the Distribution Transformer (DT) was stolen for its metal parts to be sold after taking them apart in scrap market. This is not an instance of isolation.

If we think that power theft is a rural phenomenon or only prevalent in slums, we are for a rude shock. In Mumbai City alone, irregularities involving 1280 Million units were detected in 3? years. Even the constitutionally recognized bodies such as Zilla, Taluk and Gram Panchayath (Local self Government) in Bangalore are reported to have performed power theft sending a shock message to the society!

Even the small state of J&K is losing \$ 0.25 Million a day by way of energy theft. With the onset of winter, the energy consumption moves up by 20%.The resort to unscrupulous method is rampant even among the people at the topmost rung of the society who have developed meanest trick of pilferage according to the Power Development Department. The department has no effective Anti Power theft squad but a few officials who could not unearth even a small fraction of abnormality.



Working in the rice fields.

Pilferage of power in the name of religion is taken for granted in India. It occurs during almost all festivals, irrespective of the community or the state. A report says 97%

of the organizers of festivals in Maharashtra State commit power theft. It's very difficult to detect power theft during that time, as all devotees gather and attack the enforcement officials, as if the officials are from other communities or an atheist deliberately disturbing the festival. Maharashtra State Electricity Distribution Company (MSEDCL) has gone to the extent of advising various organizations that conduct festivals, not to venture into theft during the time of festivals. Usually the light and sound contractors arrange generators for temporary use; but they seldom operate them, instead venture into stealing electricity.

General elections are yet another occasion to perform power theft in India. The police are pre occupied with keeping the law and order and usually the menace of Power theft goes unnoticed. In Tamil Nadu, a southern state of India, during general election the venue of a leader's campaign spot was illuminated with about 300 fluorescent lamps. The party had stolen electricity using hooks to add colour and light to the huge hoardings and stages and also to display the huge election symbols which are decorated with small bulbs. When big leaders come to political meetings, an engineer is used to be posted at the place to ensure uninterrupted supply of stolen power!. India's most populous state, Uttar Pradesh, large scale Power theft is reported during general election time. Another significant aspect is the abnormal rise of use of energy for agriculture during these times, a clear indication of misuse and theft. This has been done with the connivance of local leaders of ruling party.

The abduction of an engineer belonging to a utility from one of the North Eastern states forced the utility to postpone the implementation of a plan to revamp its bill collection procedure. This happened when the utility was just about to collect arrears and check power theft. In order to boost the morale of the employees, a Managing Director and Senior officers of a power Utility in North India, who decided to have first hand information of theft detection had to face unruly mob and to retreat after stone pelting .A senior Power sleuth in the Cyber city of Hyderabad had to seek police protection even after his retirement from service, following continual threat of perpetrators.

The mighty people and even the law makers indulge in theft of electricity. The Indian law should be made more stringent to punish the guilty in the case of electricity theft. The state of affairs in Power theft is pennywise and pound foolish. As the law permits to compound the offence, its magnitude comes down to the level a petty traffic violation case, where compounding of offence can be done by paying a small penalty. Maharashtra, a commercial hub of India, is



exploring the possibility of an amendment to Indian Penal Code so that those involved in Power theft are punished with life imprisonment. Utilities across India have not treated power theft seriously the way it should be. Out of the 28 states in India, the Central Power Sector Agencies and Government have the statistics of 19 states only which reveal prosecution of 0.2 Million consumers only in last 4 years, out of the 1.1 Million Power thefts detected and they added \$ 270 Million to the exchequer.

Indian power sector is crippled by theft on one side and misuse on the other side. Energy wasted in daily life on account of less efficient electrical appliances is shocking. The simple guesstimate of waste and power theft says even the best stabilizers are only 80% energy efficient. Considering 10 million odd Air Conditioners in India, which are in operation for 5 hrs a day, the loss would be 20 MU per day! And the annual loss would be \$600 Million!!. With 211 GW power generation capacity, the energy available per day will be 3545 Million units at 0.7 pf of which 20-25% ie. 886 Million Units of electricity is lost by way of Power theft every day causing annual loss of \$ 6.5 Billion to the exchequer!

The above instances are only tip of the ice berg. Many utilities, now at a snail's pace, realize the need to control Power theft, lest they should fall into darkness. Various training to power engineers is being arranged and regularly updates them with latest happening around the world. But crooks always have the ability to stay one step ahead of the anti power theft detection system. They stay in their business purely through their flair to circumvent any challenge that comes their way. The R&D of electricity theft is moving faster than the best metering system available in the world, which was revolutionized with the advent of ICs and programmable logic circuits. India is now aiming the application of Information Technology in Power

sector especially for controlling Power theft and losses. Mass communication is yet another way to campaign and spread the idea of energy Theft and conservation. The Indian power sector has a long way to go, as in many utilities; power theft is a way of life! (The author can be contacted [tamperfinder@gmail.com](mailto:tamperfinder@gmail.com))

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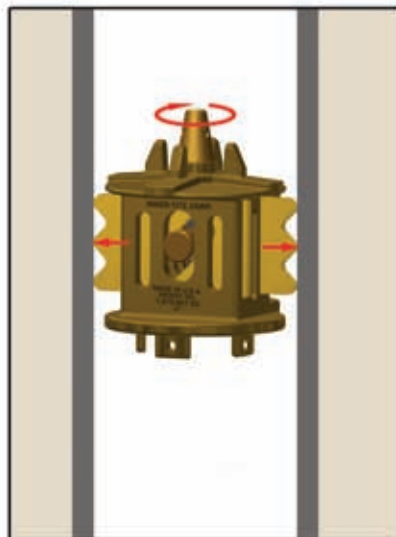
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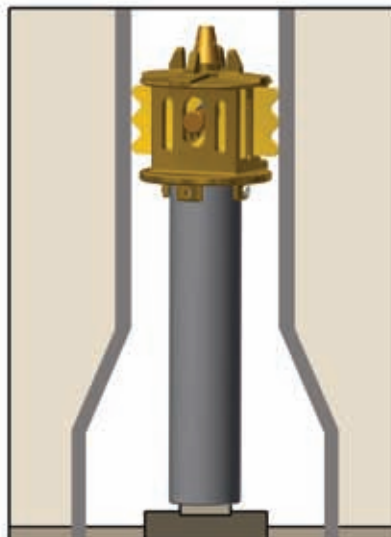
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