

REVENUE RECOVERY TRAINING SEMINAR

Sponsored and Certified by IURPA



ARNETT CONSULTING SERVICES

a division of H.J. Arnett Industries, L.L.C.

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Introduction

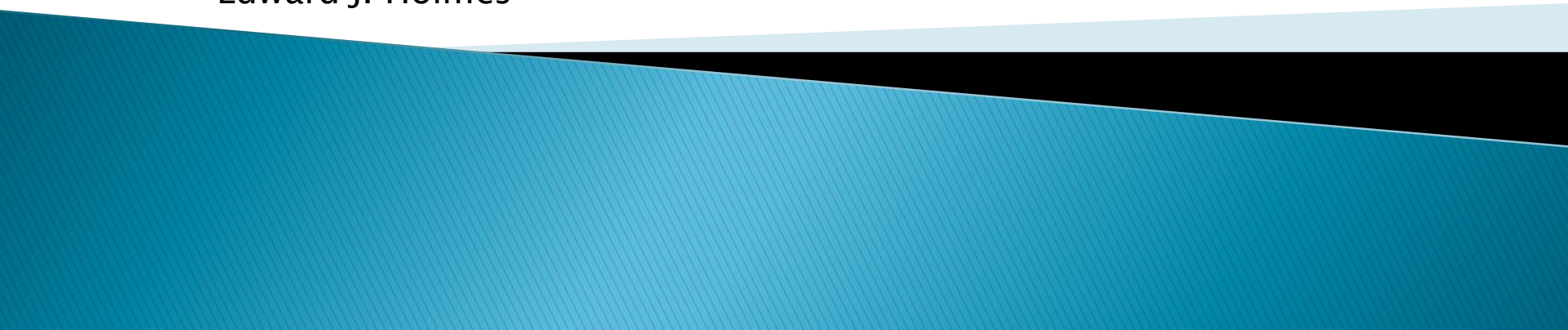
This course and accompanying text has been designed and approved by IURPA to provide guidance to utilities in combating and reducing the unaccounted for revenue losses associated with defective equipment, unmetered services, fraud and theft of utility service.

Three internationally recognized experts in the field of revenue recovery, whose respective programs were continuously ranked among the top five programs in the United States, developed the methods, policies and procedures as well as the overall content of this course.

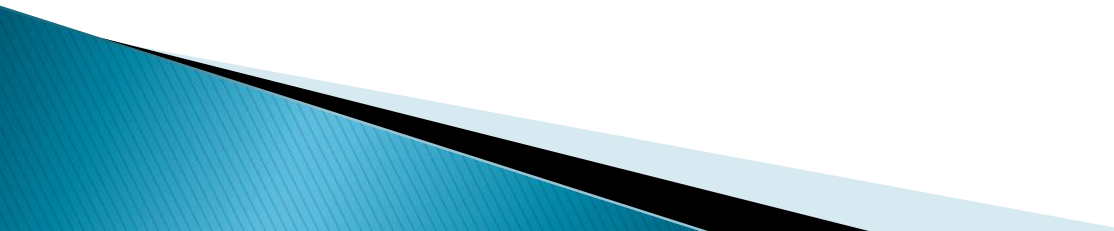
The course is structured to provide you with a basis to conduct effective theft of service investigations and to identify and recover the lost revenue resulting from fraud, malfunctioning equipment and theft of service.

Each participant, who satisfactorily meets the requirements of this training course and the exam, will receive a certificate of completion.

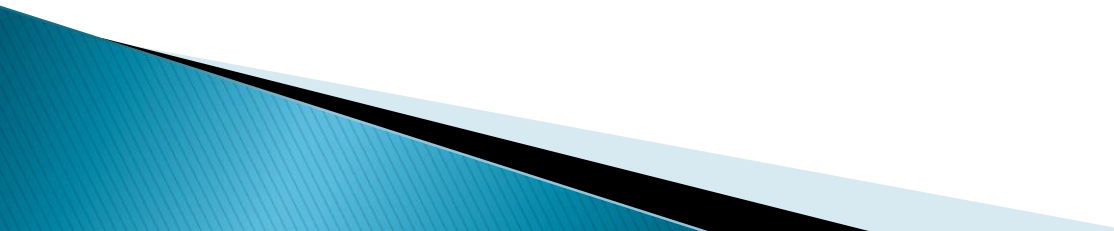
Edward J. Holmes



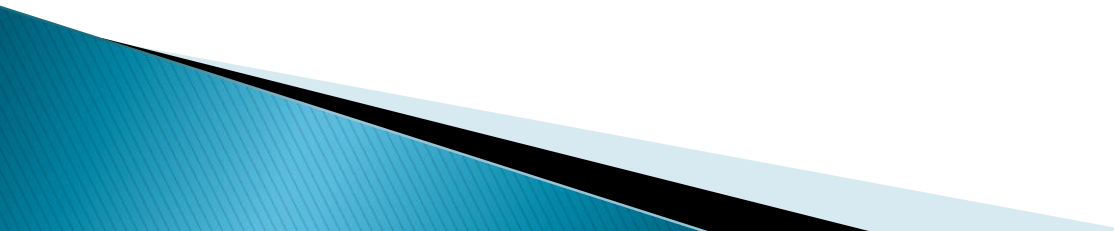
Extent of the Problem

- ▶ When did power theft begin?
 - ▶ Research indicates some utilities began addressing the problem as far back as 1926.
 - ▶ Revenue Protection Teams began in the late 1960's and early 1970's. Why?
 - ▶ Oil embargo and increases in utility rates prevailed. Certain groups of people felt that utility companies weren't entitled to charge for such costs.
- 


Extent of the Problem (cont.)

- ▶ Problem is not unique to any type of utility. Gas, water, cable TV, and telephone.
 - ▶ Not unique to any country or region.
 - ▶ Only difference is the perceived magnitude and nature of response.
 - ▶ Public Power Magazine, published by American Public Power Assoc, reports losses approx \$4 billion (electric) in the U.S. and another \$2 billion (natural gas and water service).
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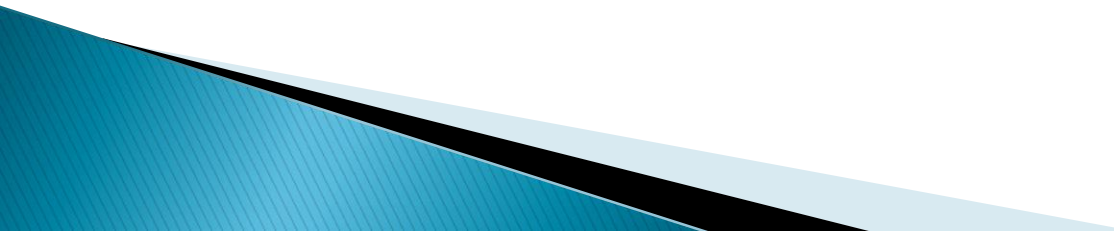
Extent of the Problem (cont.)

- ▶ Armed with this information, utilities must develop proactive programs to minimize their losses.
 - ▶ Today, utilities are faced with new, sophisticated methods of theft.
 - ▶ We're here to help you continue to effectively address theft problems, as well as non-theft losses as they evolve.
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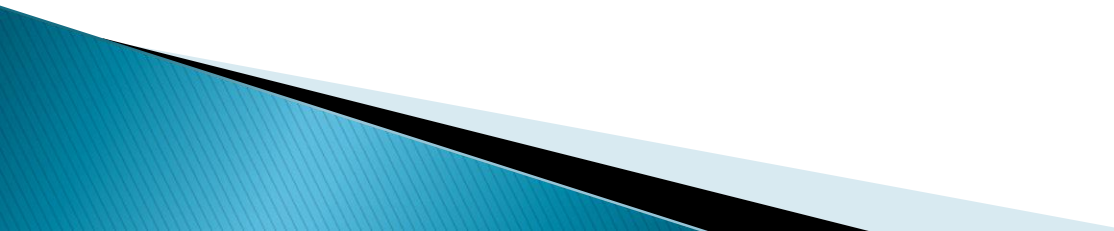
Basic Electricity

- ▶ Three primary methods of generating electric
 - Fossil Fuel
 - Hydro
 - Nuclear at a power plant
 - ▶ From the power plant, transported down high voltage transmission lines interconnected to grids throughout the country.
 - ▶ Delivered to substations where the voltage is stepped down to a distribution voltage.
 - ▶ Once again, from substation, stepped down by means of transformers via feeder lines.
- 

Basic Electricity (cont.)

- ▶ Out from substation, travels by means of feeder lines to neighborhood transformers.
 - ▶ After it has been transformed to a usable voltage, then transported to the customer's premises through service wires connected to the meter.
 - ▶ Most residential electric services are single phase rated at 120/240 or 120/208 volts.
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Meter Mechanics

- ▶ Electric meter is measuring device. Measures voltage using a potential coil and amperage using a current coil.
 - ▶ Interaction of the two coils creates a field that causes the meter disc to rotate.
 - ▶ Damping magnets, built into meter, controls speed and accuracy of the disc.
 - ▶ Through a series of gears, the disc rotations are recorded by the meter register resulting in the meter reading each month.
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Electromechanical Meter



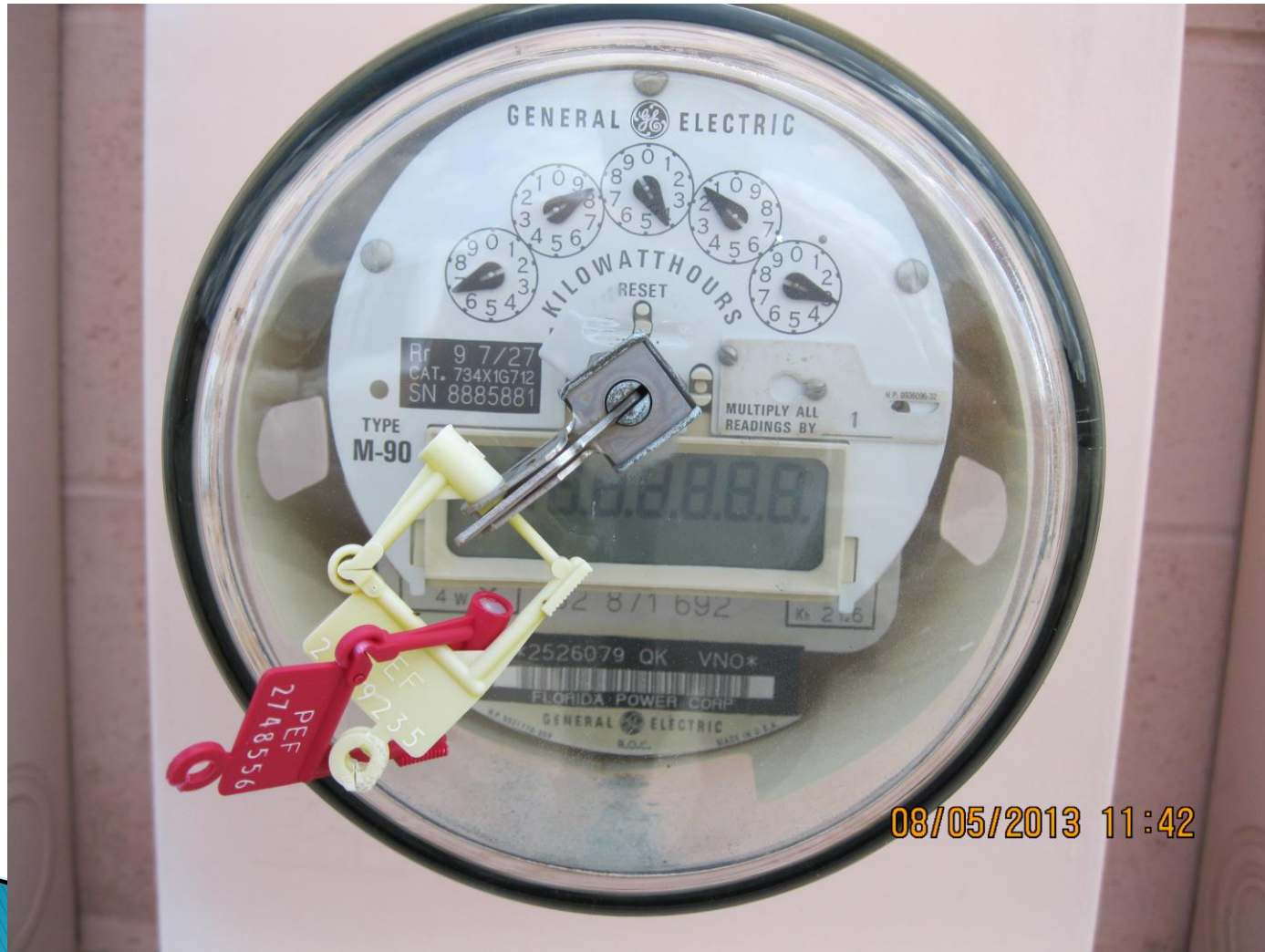
Meter Mechanics (cont.)

- ▶ Some commercial customers have a demand meter.
- ▶ Demand operates on the same principal as the residential meter, but has an additional set of dials that record peak kW used during the monthly billing cycle.
- ▶ Based on the estimate of connected load (provided by the customer or electrician) at the time of application, the utility determines the size and type of equipment needed.
- ▶ Commercial and Industrial are normally three phase where voltages can range from 120 to 600 volts.

Meter Mechanics (cont.)


- ▶ Utility recovers its equipment investment by means of billing a demand (kW) charge.
- ▶ The monthly kW recorded is the highest kilowatt draw placed upon the utility's system and is billed according to the applicable rate.
- ▶ kW Check Formula:
$$10 \text{ revs} \times 3.6 \times \text{Kh} / \# \text{ of seconds} = \text{kW}$$
- ▶ Electromechanical meters life expectancy 200 years.
- ▶ Meter Reader resets back to 0 after monthly reading.

Electromechanical Demand Meter



Automated Meter Reading AMR

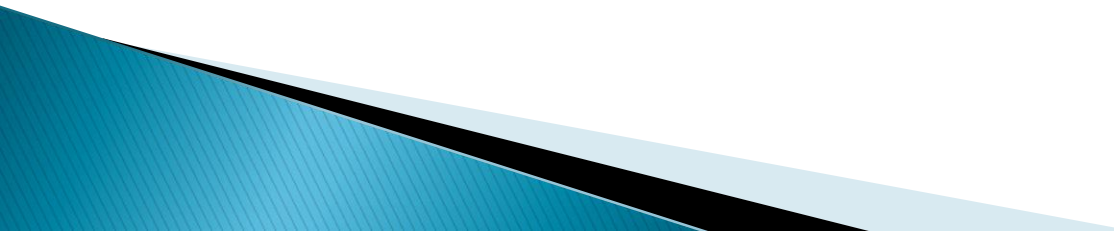
What's different from the electromechanical meter?

- ▶ No internal gears or disc.
 - ▶ Electronic circuit boards inside.
 - ▶ Digital reading display.
 - ▶ Meter is read remotely, no more monthly field visits by Meter Reader.
 - ▶ Turning upside down, meter still registers forward.
 - ▶ Light weight plastic vs. heavy glass canopy.
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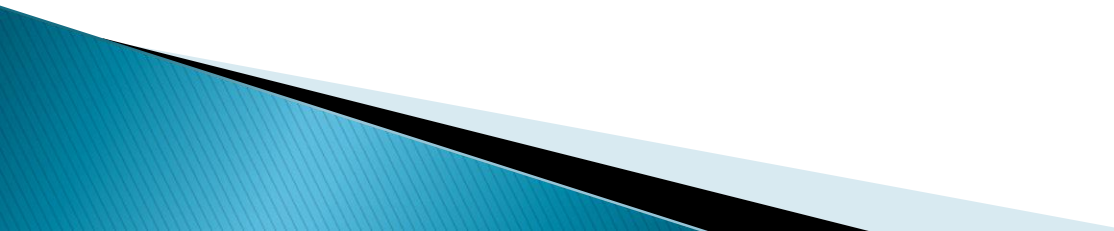
AMR Meter



Automated Meter Infrastructure AMI

- ▶ Newest Technology called Smart Meter.
 - ▶ Capable of capturing readings at regular intervals via a Fixed Network.
 - ▶ Can have remote ability to disconnect and reconnect service.
 - ▶ Can monitor historical patterns and load profiles for Revenue Protection.
 - ▶ Utility may be able to know if outage or problems in voltage before customer does.
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Automated Meter Infrastructure AMI (cont.)

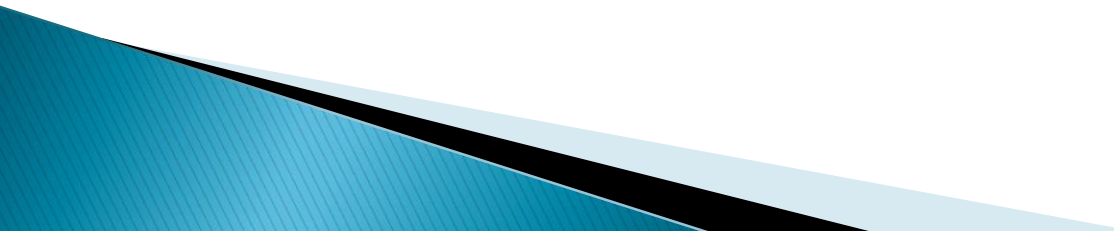
- ▶ Current Transformer Rated (CT's) can perform remote Phase Angle check.
 - ▶ Demand resets are automated and completed at time of billing reading from the Head End.
 - ▶ On line Energy Profile can be requested. Customer will be able to shape their usage patterns for the future.
 - ▶ Light weight plastic vs. heavy glass canopy.
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AMI Meter



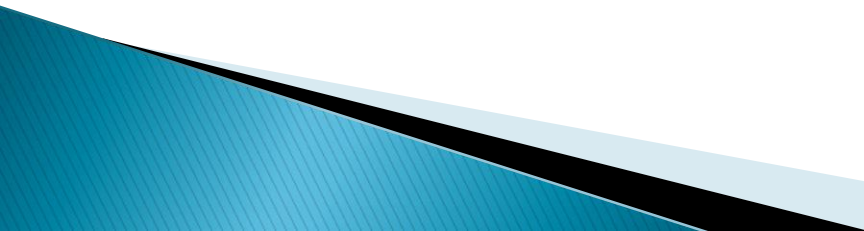
Non-Technical Losses

Detection and reporting of suspected cases of lost revenue:

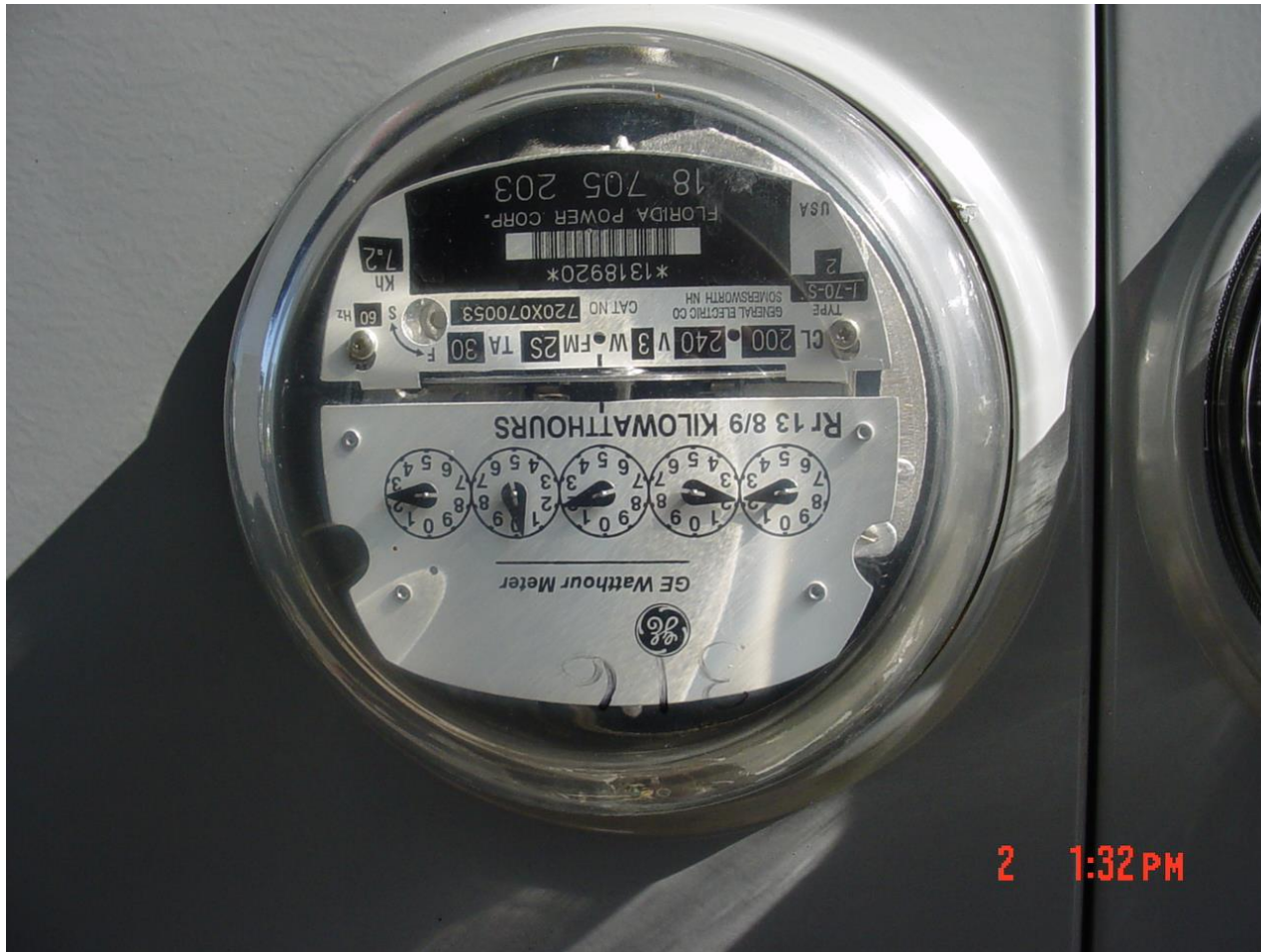
- ▶ Responsibility of all utility employees.
 - ▶ Certain employees who visit customer premises can provide information that may lead to detection of lost revenue.
 - ▶ Every employee is responsible for ensuring that consumption is properly metered and accounted for.
 - ▶ In office personnel can assist through record review.
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Types of Non-Technical Losses

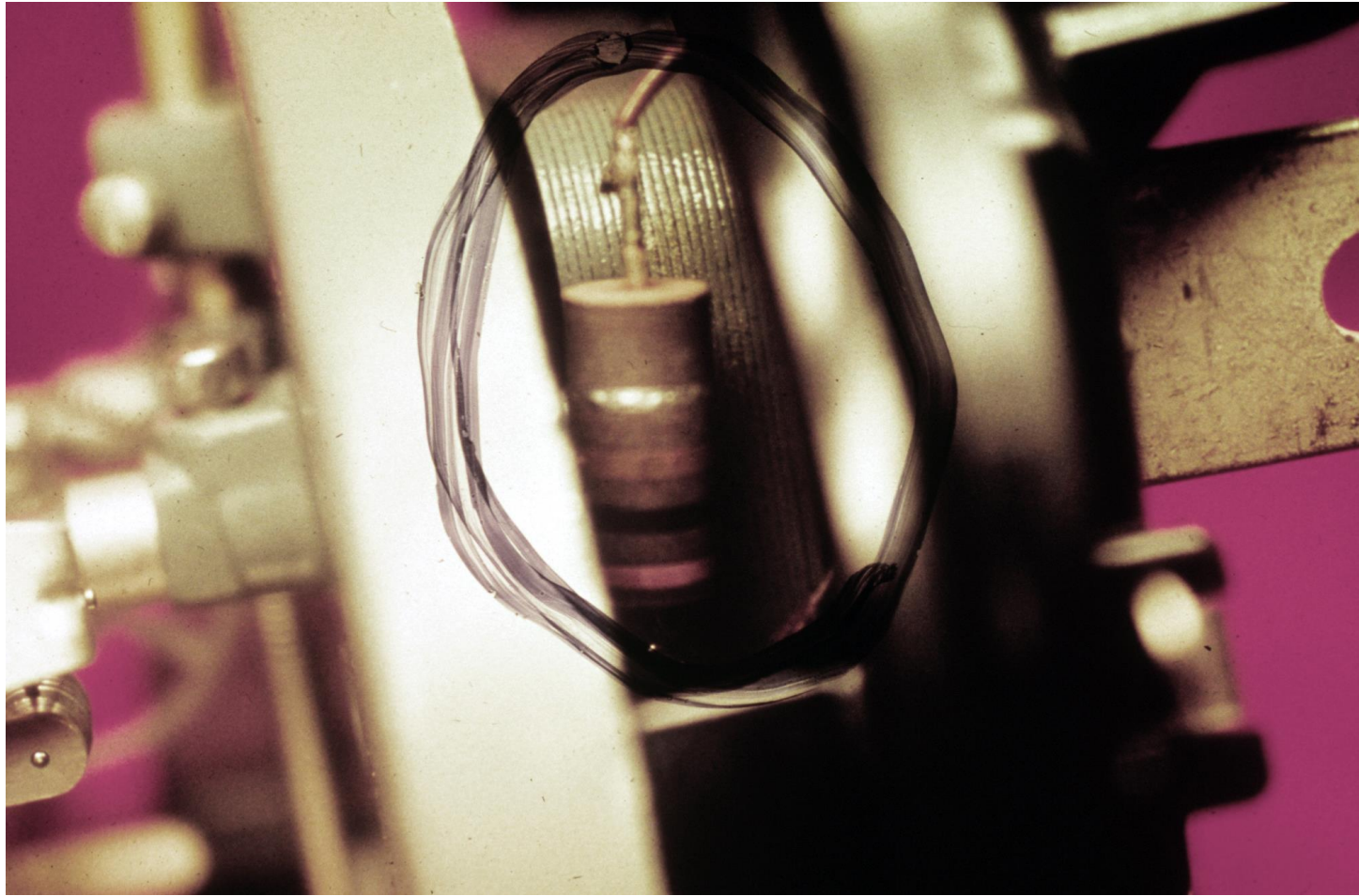
Electromechanical Meters

- ▶ Inverted Meters.
 - ▶ Devices that alter meter registration including resistors or bending the disc.
 - ▶ Jamming the disc (object under disc).
 - ▶ Hole in glass, object (wire) stopping disc.
 - ▶ Missing or incorrect meter (stolen meter).
 - ▶ Meter dial manipulation.
 - ▶ Gear teeth filing.
 - ▶ Open potential link.
 - ▶ Magnets on meter glass.
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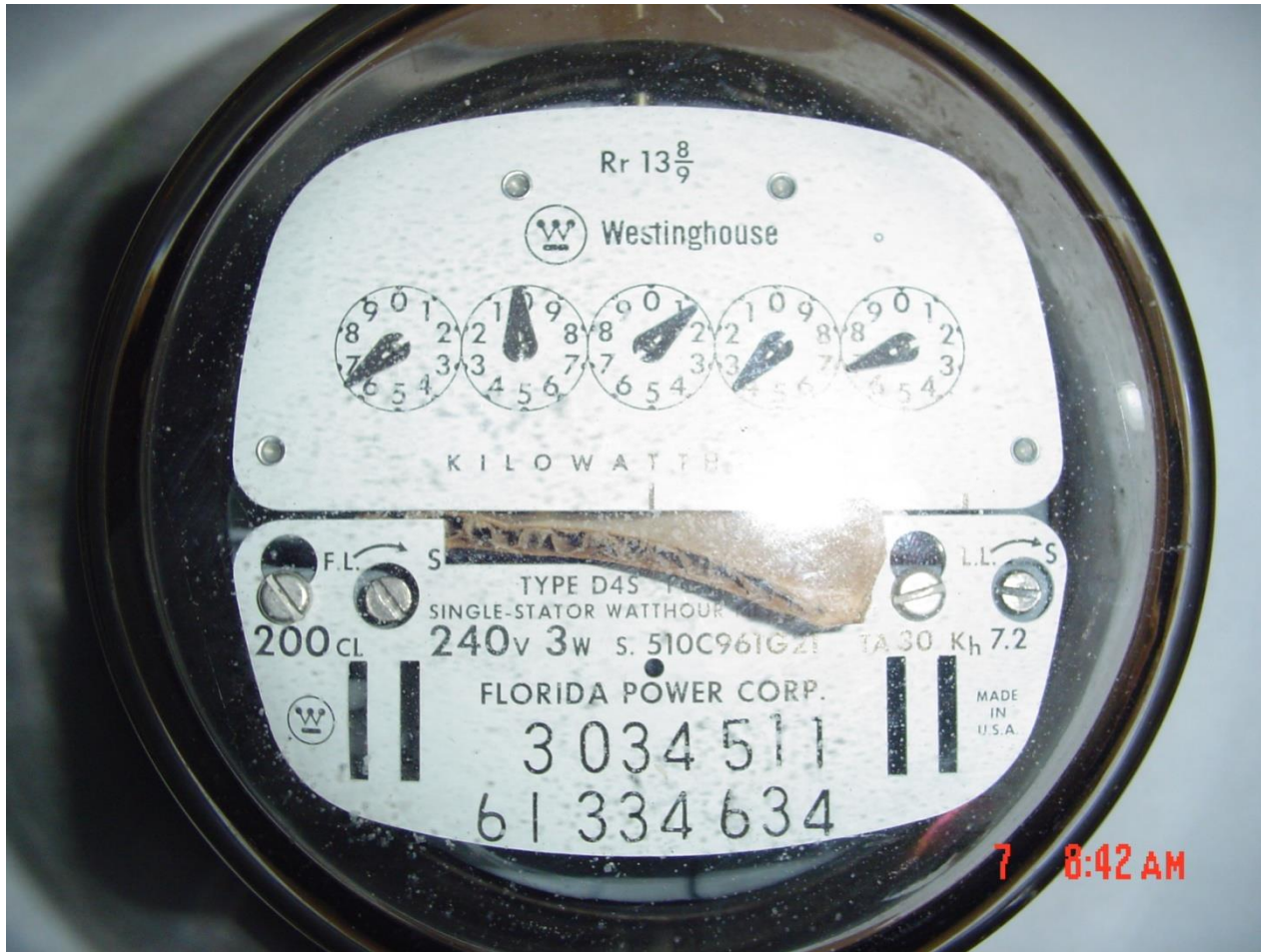
Inverted Meter



Resistor Inside Meter



Jamming the Disc



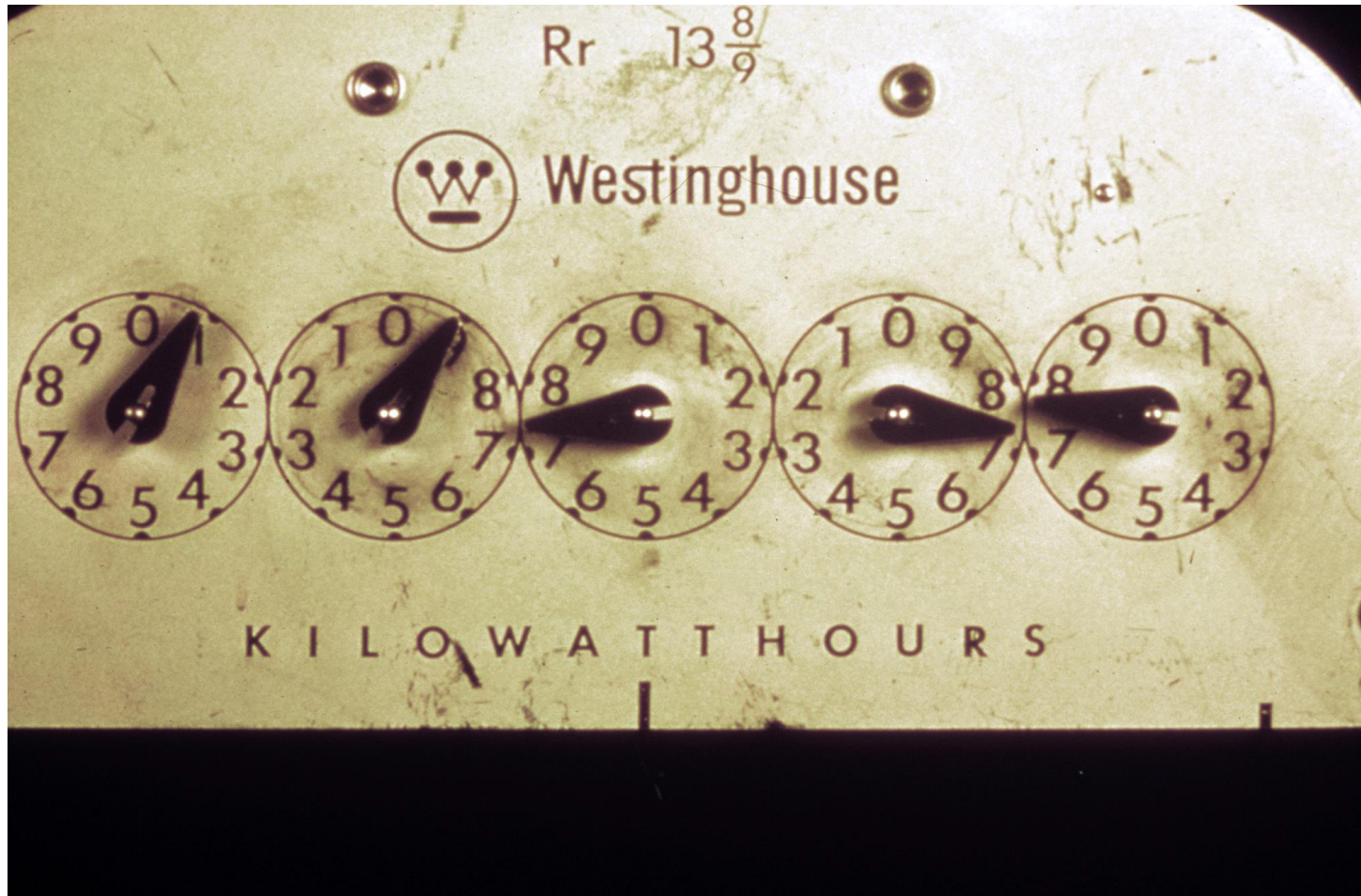
Hole on Glass – Wire Jamming Disc



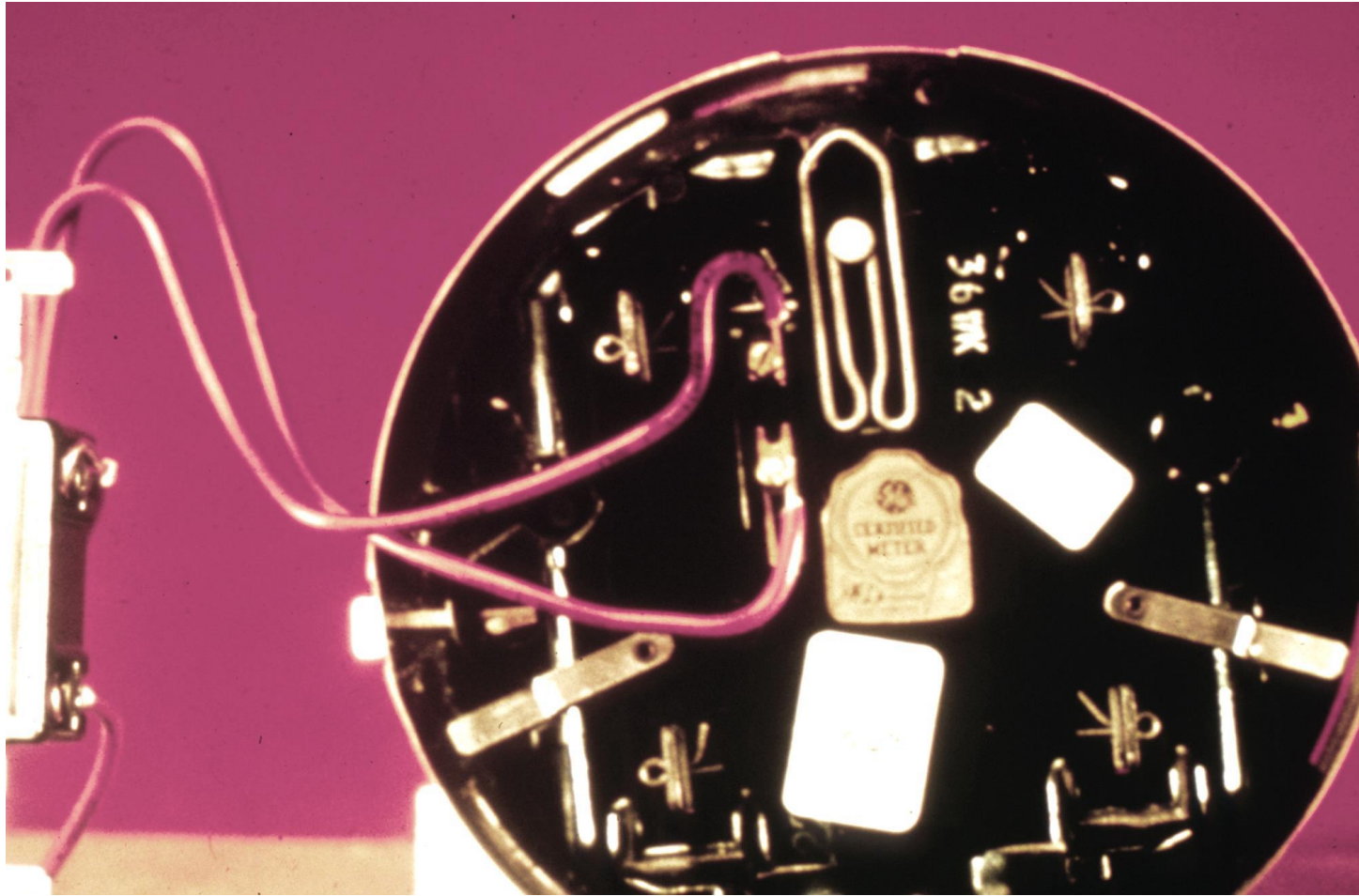
Stolen Meter



Dial Manipulation



Open Potential Link– Toggle Switch Attached

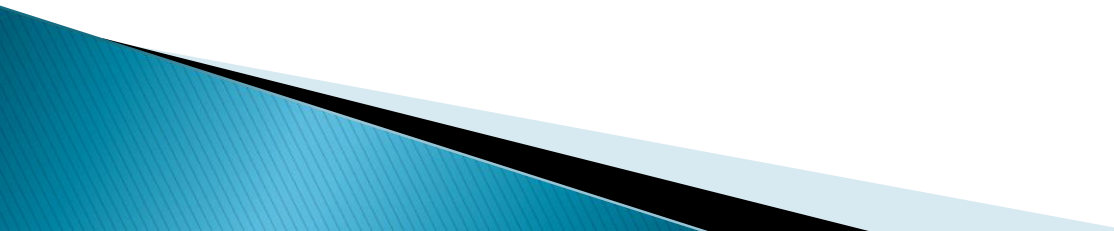


Magnets on Meter Glass

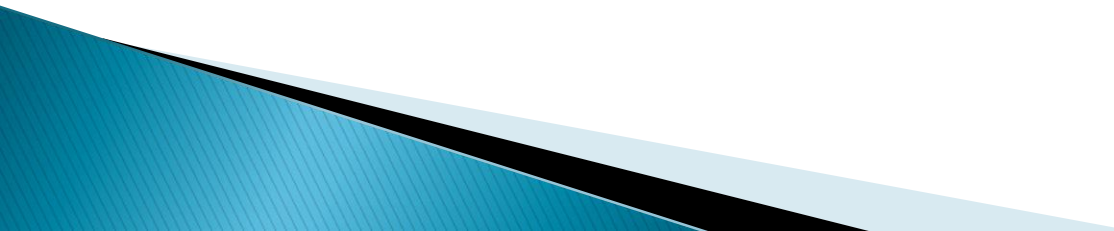


Types of Non-Technical Losses AMI or AMR

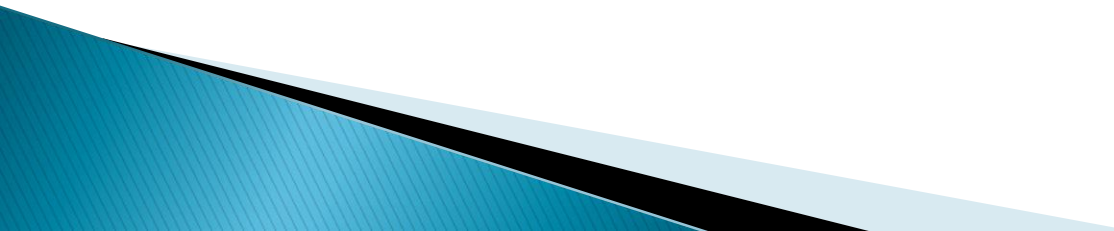
The same as with Electromechanical Meters with the exception of:

- ▶ Inverted meters.
 - ▶ Jamming the disc.
 - ▶ Hole in the glass, object (wire) stopping disc.
 - ▶ Meter dial manipulation.
 - ▶ Magnets on meter glass.
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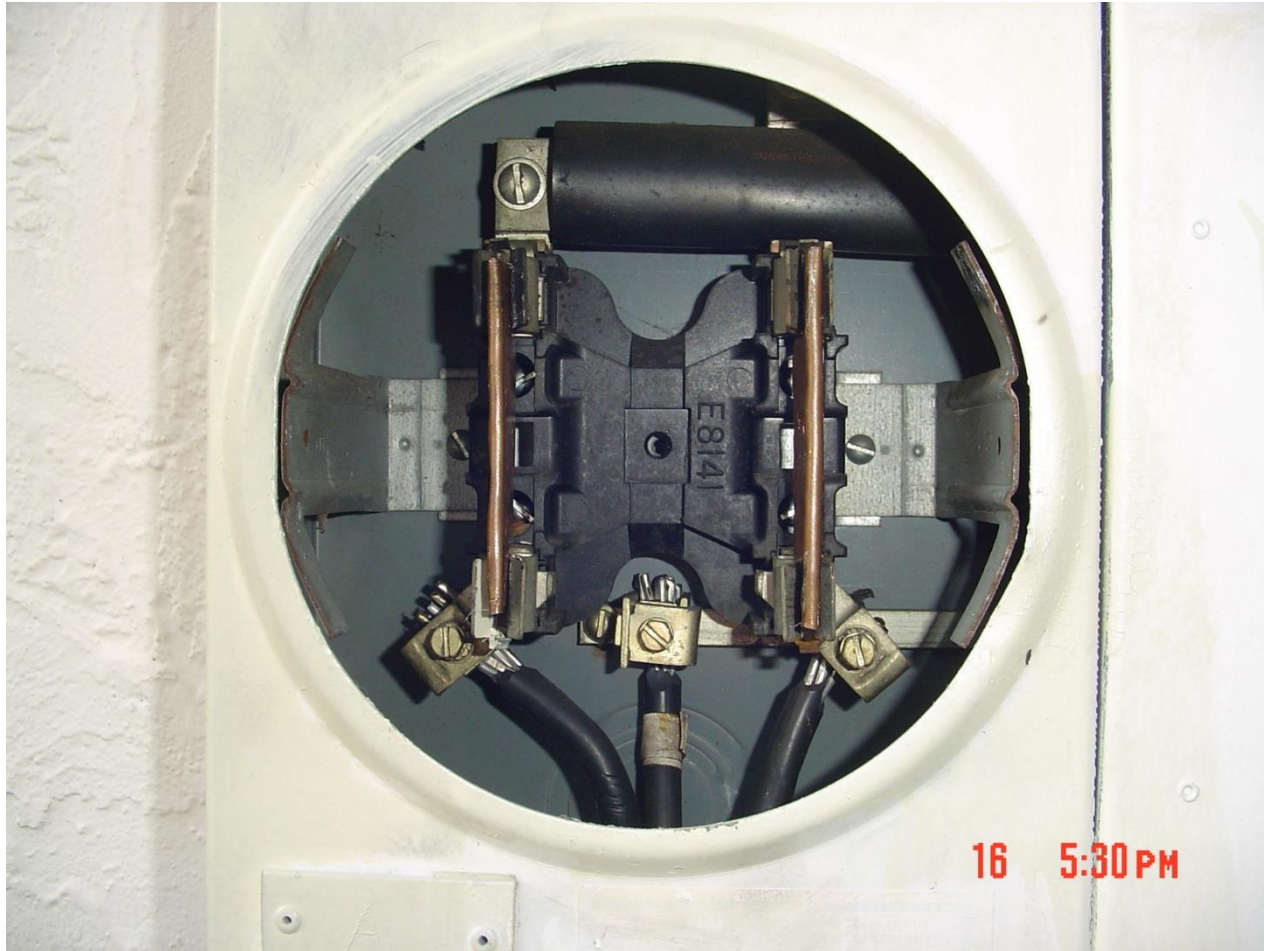
Types of Non-Technical Losses– Other

- ▶ Jumpers.
 - ▶ Bypass handle engaged.
 - ▶ Line side taps.
 - ▶ Malfunctioning equipment.
 - ▶ Meter multiplier/Accounting errors.
 - ▶ New meter installations.
 - ▶ Reverse/incorrect wiring (CT Meters)
 - ▶ Fraud
- 

Jumpers

- ▶ When conductor is installed from line side terminal to load side terminal. Electric usage will not be recorded on meter.
 - ▶ May be difficult to see until meter is removed from socket.
 - ▶ Broken or missing socket seal may indicate unauthorized access.
 - ▶ Meter should be removed and a thorough inspection is required.
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Jumpers



Battery Jumper Cables



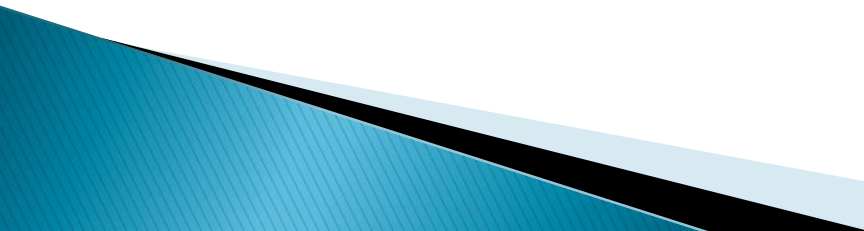
Jumpers Attached to Back of Meter



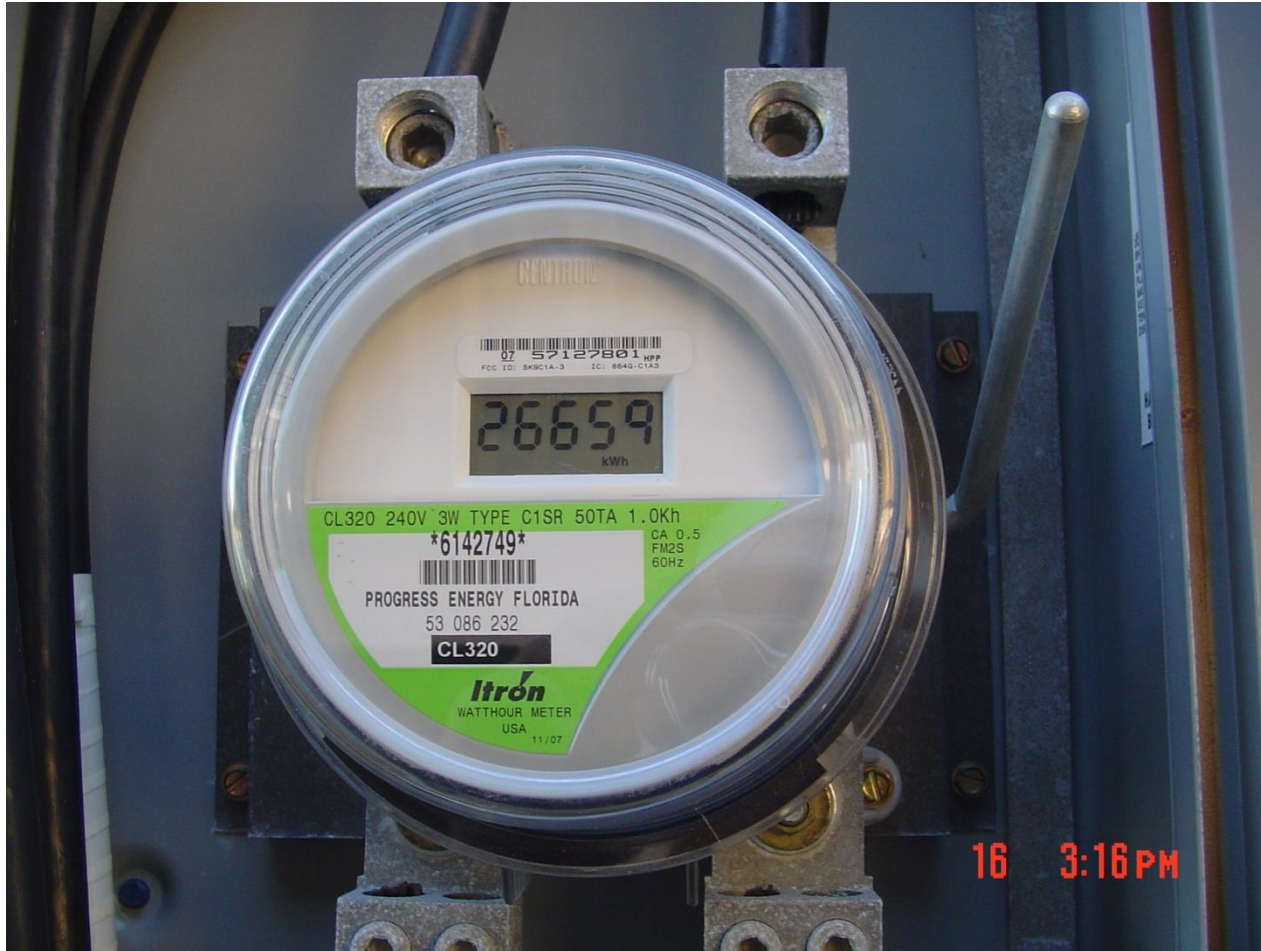
Jumper Behind Surge Suppressor



Bypass Handle Engaged

- ▶ When in the upward position, current mostly flows through the bypass and not through the meter.
 - ▶ Socket cover cannot be properly installed because handle sticks out at 110 degree angle from bottom of base.
 - ▶ Be alert for a sawed off or cut handle which then allows for cover to be properly installed.
 - ▶ Holes in the meter socket cover may also allow for the handle to be engaged.
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Bypass Handle Engaged



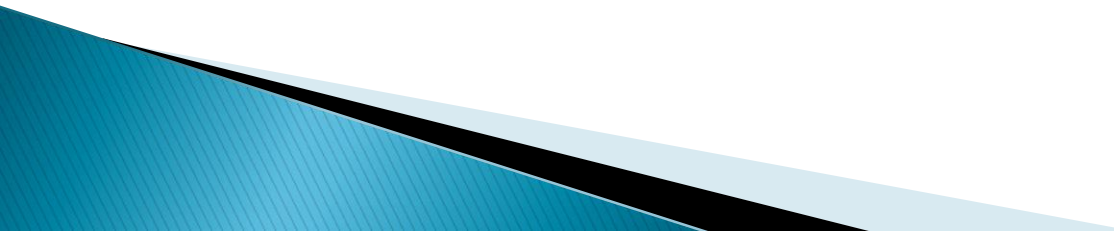
Sawed Off Bypass Handle



Hole in Cover-Bypass Handle Engaged



Line Side Taps

- ▶ Occurs when unauthorized connections to service wires ahead of company's metering equipment.
 - ▶ Can be found overhead or underground.
 - ▶ Can range from battery jumper cables clipped to service wires to more sophisticated wires connected illegally.
 - ▶ Until recently, the hidden bypasses were most difficult to find. New detection instruments have helped.
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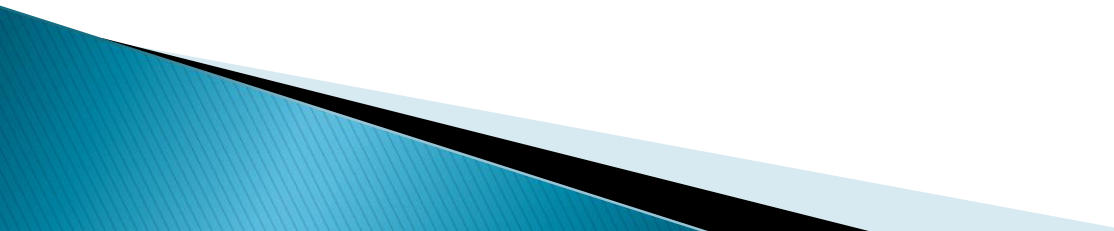
Line side taps



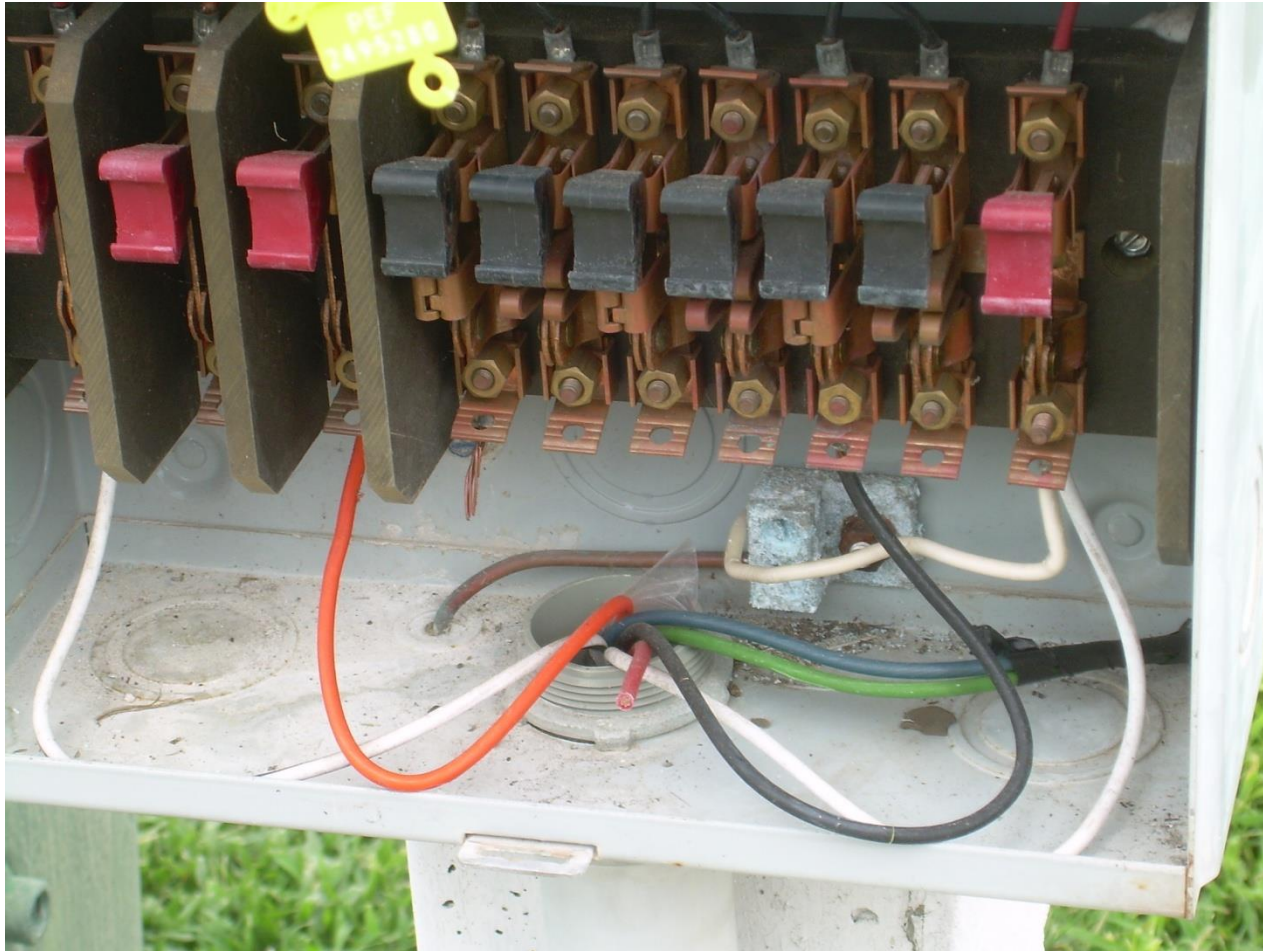
Line Side Tap



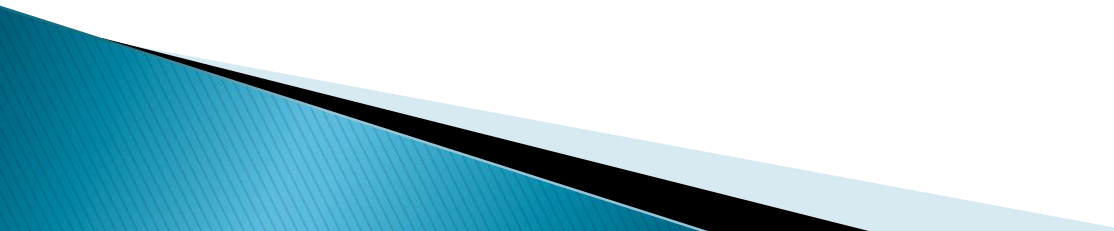
Malfunctioning Meter Equipment

- ▶ Various methods alter the accuracy and recording ability of current transformers and related metering.
 - ▶ Incorrect multipliers.
 - ▶ Magnetized current transformers.
 - ▶ Test switch failure or damage.
 - ▶ Corrosion.
 - ▶ Improper wiring.
 - ▶ Manufacturers errors.
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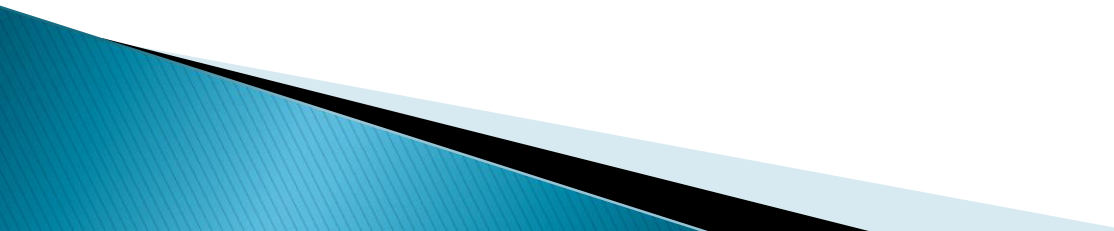
Cut Wire on CT Test Switches



Meter Multipliers / Accounting Errors

- ▶ Area of significant revenue loss.
 - ▶ Can occur when an improper formula is applied to Current Transformer rated equipment or incorrectly input into the office computer billing system.
 - ▶ An example of an accounting error would be the incorrect rate billed.
 - ▶ Be on the lookout for commercial accounts billed on a residential rate.
- 

New Meter Installations

- ▶ Meters installed and connected in the field, but never gets input into the computer.
 - ▶ In many instances, this type of error can go for long periods of time.
 - ▶ Easiest and most effective methods of detection is to implement a formal meter sealing program.
 - ▶ Ensures periodic verification of meter and seals.
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Automated Meter Reading AMR

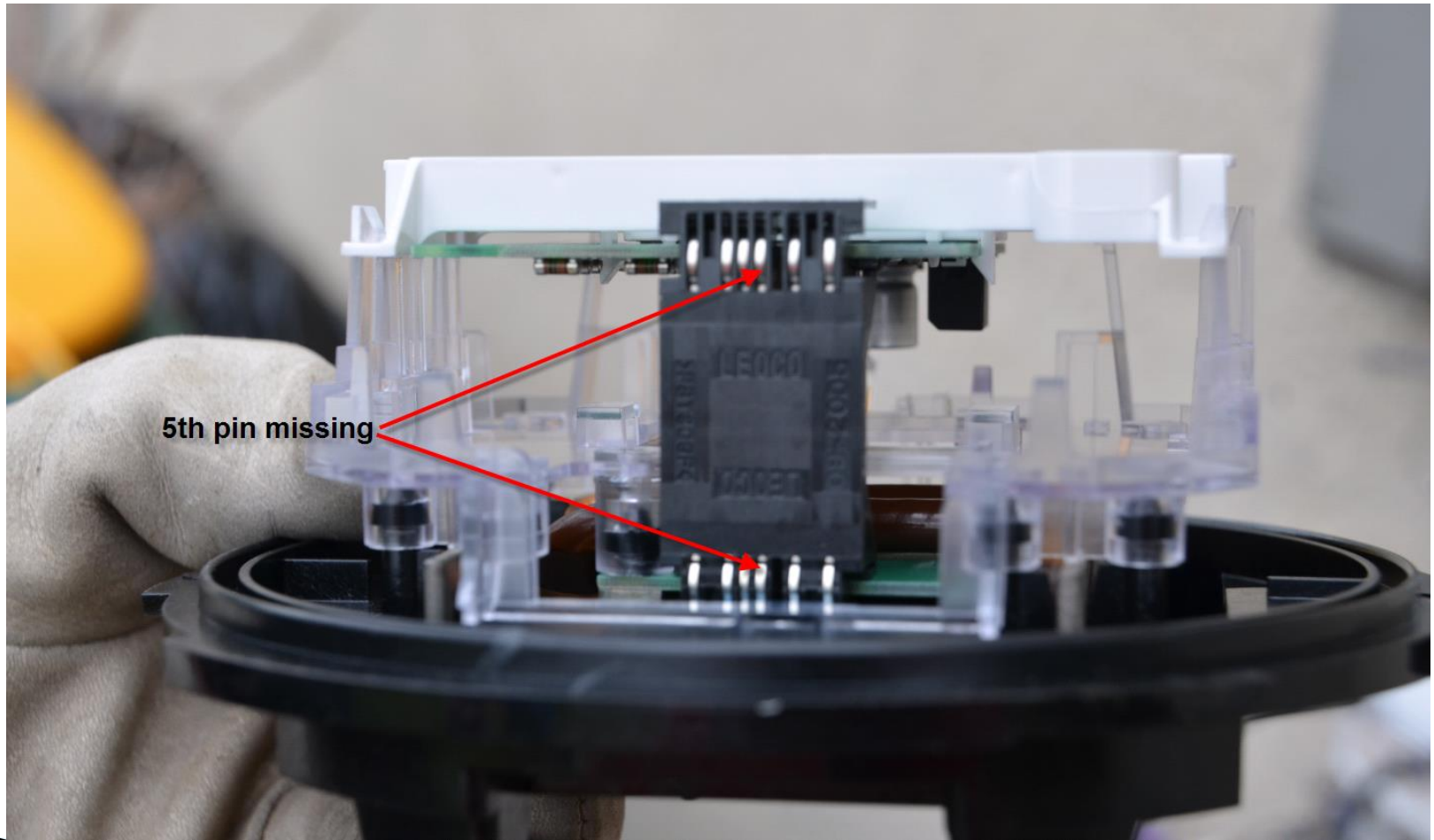
▶ Additional ways of tampering:

Pin Tampering. Bridge inside connecting the Mother Board and Daughter Board has a series of pins. Removing the 5th pin from the left keep the reading visible, but doesn't count kwhs. Some meters.

Disconnect wire inside the meter that monitors the Pulse Initiator. Some meters.



Pin Tampering – Missing 5th Pin



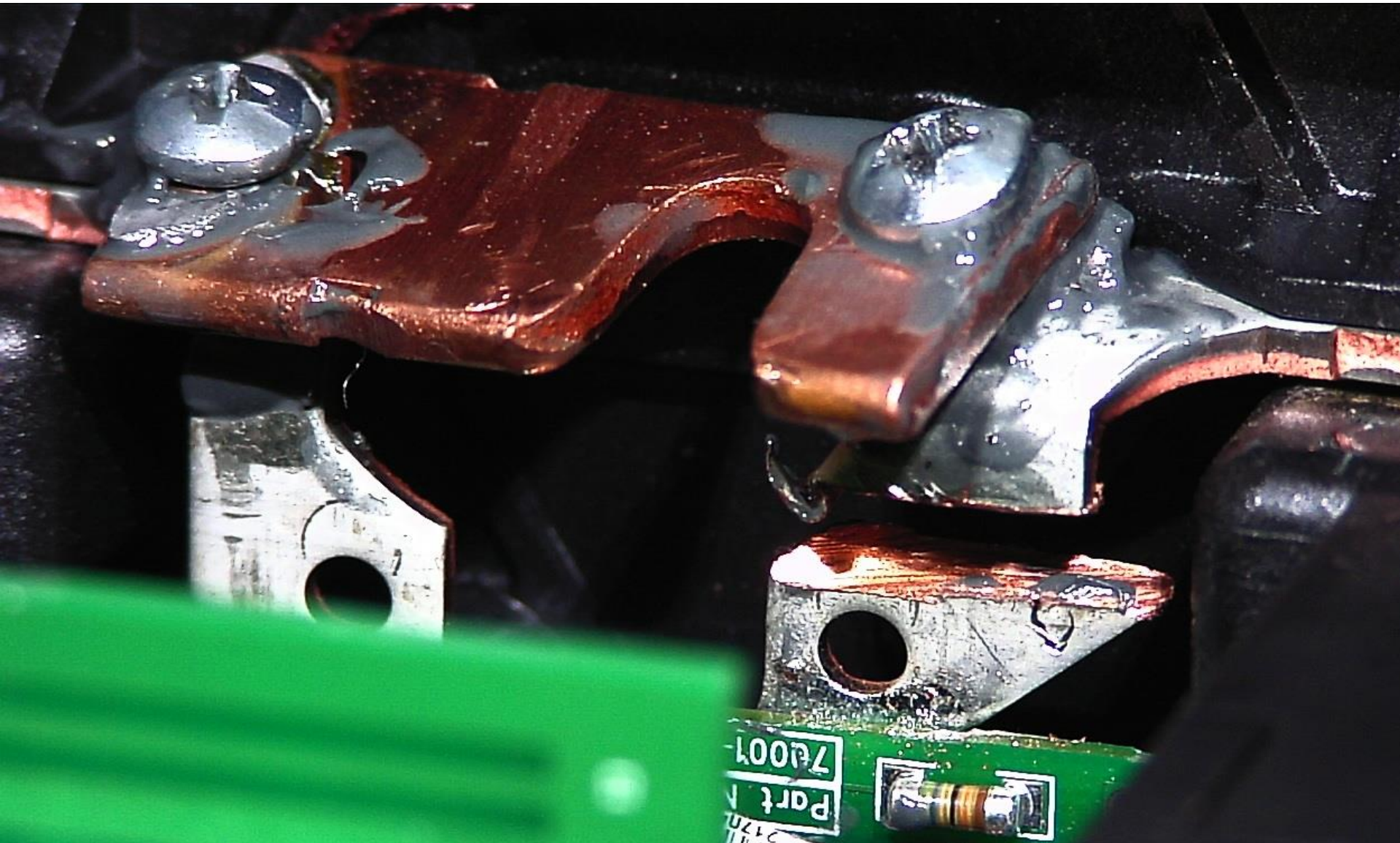
Disconnected Pulse Initiator Wire



The New Face of AMI Cases

- ▶ Alarms and events are triggered instantaneously at the Head End.
- ▶ Data Mining
 - Finding patterns and tampering resulting in. Research and analysis may be done quicker.
- ▶ System generated event charts.
- ▶ System generated load reading graphs.
- ▶ Investigator developed cases enhanced with more information available.

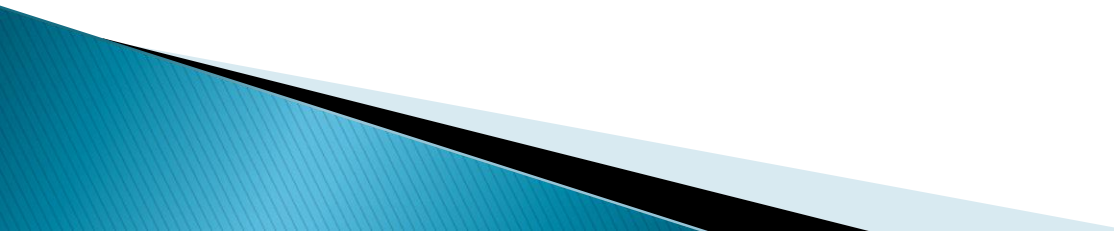
Jumper Inside AMI Meter



Fraud

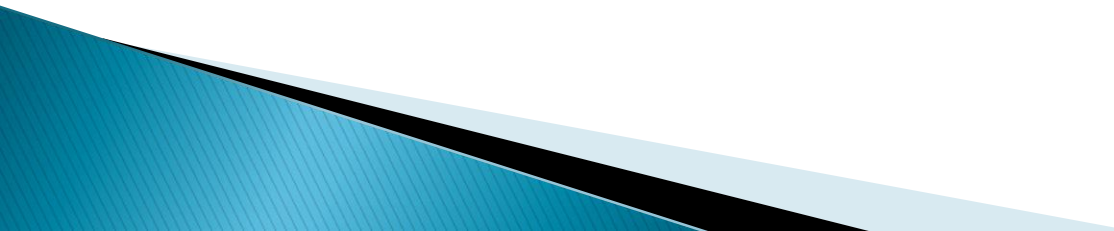
A false representation of a matter of fact—whether by words or by conduct, by false or misleading allegations, or by concealment of what should have been disclosed—that deceives and is intended to deceive another so that the individual will act upon it to her or his legal injury.

Fraud is commonly understood as dishonesty calculated for advantage. A person who is dishonest may be called a fraud. In the U.S. legal system, fraud is a specific offense with certain features.



Why the Fraud Problem?

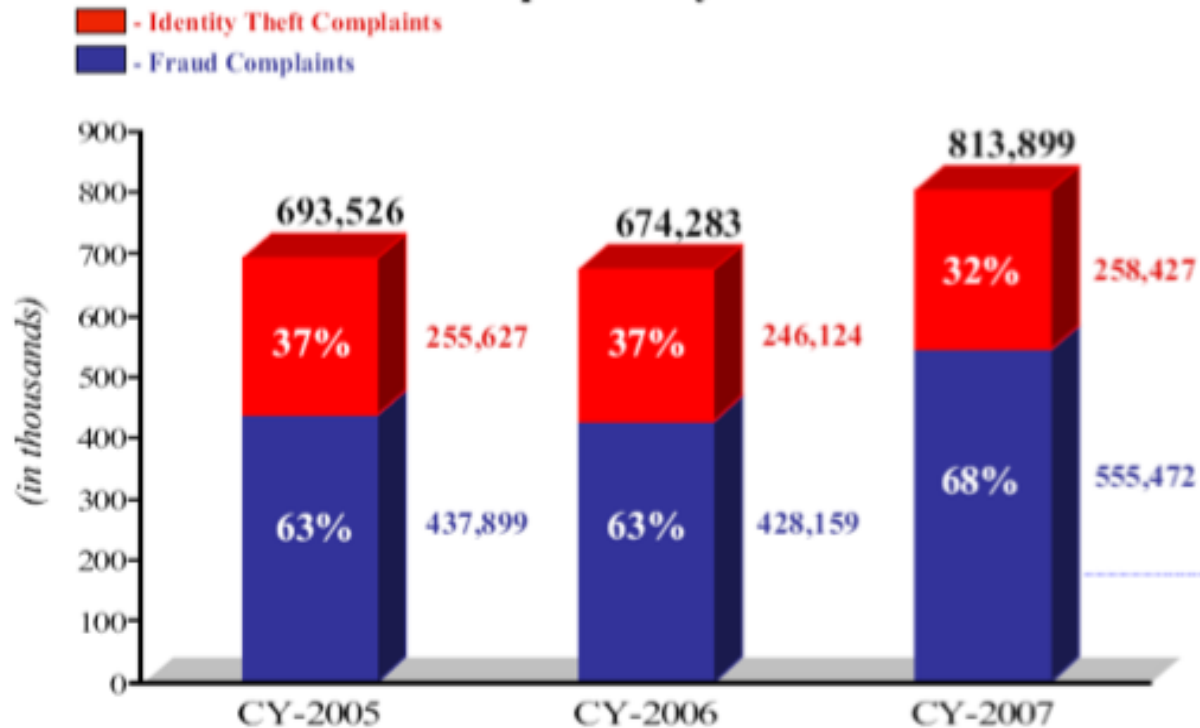
- ▶ Utilities are closing their local community offices
- ▶ Loss of face to face interaction with customers
- ▶ Loss of viewing personal identification
- ▶ Loss of “local intelligence”
- ▶ Reps typically learned which customers are “up to something
- ▶ Provide false information on the phone
- ▶ Pretend to be someone else to establish service
- ▶ Pretend to be the owner of the property
- ▶ Shop around for the less diligent phone agents
- ▶ Put children on service
- ▶ Shop around for the less diligent phone agents
- ▶ Customers have learned it is easy to
- ▶ Provide false information on the phone
- ▶ Pretend to be someone else to establish service
- ▶ Pretend to be the owner of the property
- ▶ Put children on service

- ▶ **Increase in fraudulent applications for service**
 - Name
 - Personal Identification characteristics
 - Social security number
 - Date of birth
 - Name switching
 - Establishing accounts in names of the other residents to avoid bill payment or to have service restored
- 

- ▶ **Increase in Identity Theft**
- ▶ **What is identity theft?**
 - Identity theft occurs when someone uses your personally identifying information, like your name, Social Security number, or credit card number, without your permission, to commit fraud or other crimes.

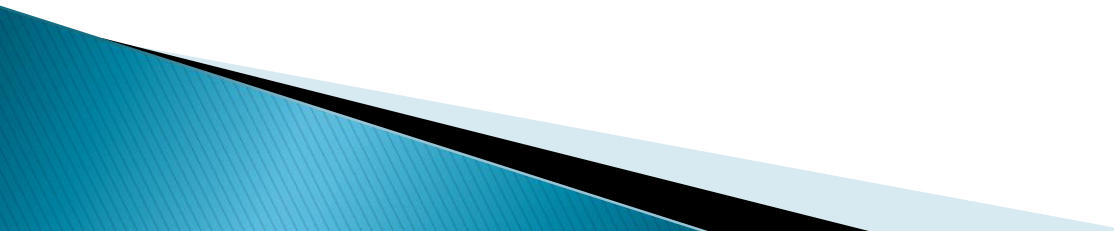


Sentinel Complaints by Calendar Year¹



¹Percentages are based on the total number of Sentinel complaints by calendar year. These figures exclude National Do Not Call Registry complaints.

The Face of Fraud:

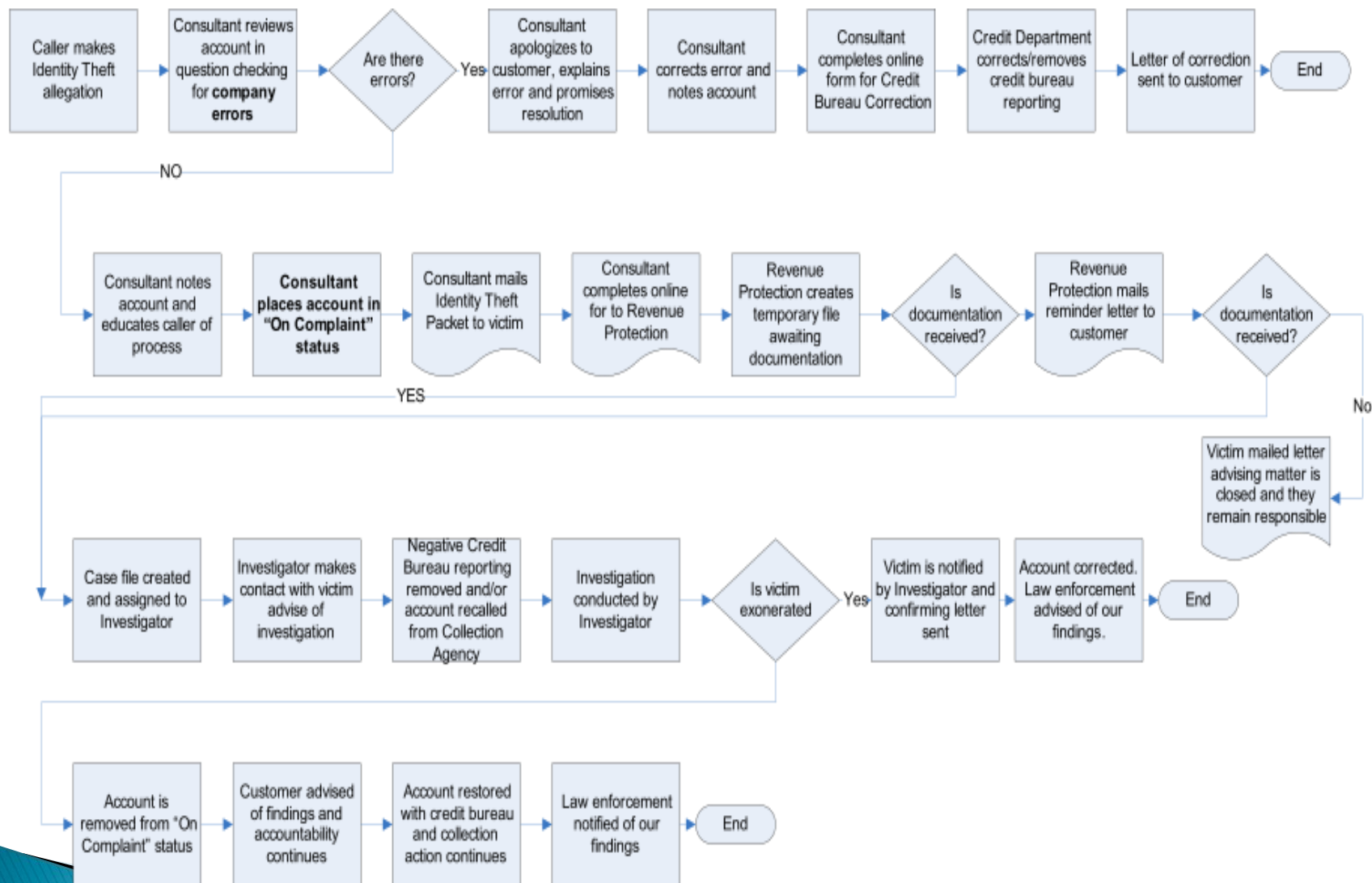
- ▶ Repetitive multiple applicants at a disconnected (or facing disconnection) account.
 - ▶ Use of stolen credit cards or checking account information to prevent disconnection or for a restoration of service.
 - ▶ Inconsistent or fraudulent lease agreements
 - ▶ Customer ambiguity on personal identification information
 - ▶ Callers pretending to be property owner (ask probing questions)
 - ▶ The establishment of a new account for an existing customer who is not cancelling service on their current account, and the bill is being sent to the service address.
 - Our billing system sends a Thank You letter to the original address thanking them for opening a new account elsewhere.
 - Tenants will pretend to be the owner and place the service in the owner's name.
- 

Combatting Fraud:


- ▶ Do you have an established written Identity Theft Program?
- ▶ Do you have an established training program for your front line staff?
 - All telephone Consultants have to be trained to perform validations at the opening of any new account
- ▶ Do you have an established customer authentication program for every call?
 - Do you validate each caller?
 - Name
 - Address
 - Social Security number
 - Account number
- ▶ Do you have a good relationship with your local law enforcement agency?
 - They will refer to you and include you in their identity theft investigations
 - They will respond to your requests for investigations
- ▶ Do you have the capability of conducting field visits on suspect applications?

Resolving Identity Theft Complaints

Identity Theft Procedure



- Online form was created for our Customer Contact Centers to refer accounts/situations to our Revenue Protection Department
- Revenue Protection awaits forms from victim and will contact victim if not received in a timely manner


Forms

Close
Continue
Start Over

For additional help completing this form contact:
Christine.Smith@we-energies.com at phone number 414-221-2597

Form # 0371
Form Name: Reporting Theft/Fraud to Revenue Protection

This form is to be used for, but not limited to, reporting self reconnects, stolen meters, identity theft, name switching, unbilled meters, under billed meters, meter tampering, and theft of service.

Your Corporate ID: * Req Field

* indicates field is required

For employees with CSS access, please remember to add contact in CSS.

- ☐ Self Reconnect ...
Electric - please issue OMS when a hazardous situation exists to inform EDCC of self-reconnect.
Gas - please call Central Dispatch at speed dial 81 or 800-261-9325 to inform of self reconnect.
- ☐ Stolen Meter Missing From ...
Electric - please issue OMS when a hazardous situation exists to inform EDCC of stolen meter/open socket.
Gas - please call Central Dispatch at speed dial 81 or 800-261-9325 to inform of stolen meter.
- ☐ Stolen Meter Found At ...
Electric - During business hours, please issue read/investigation order to Meter and Service to inform them of stolen meter. After business hours, please issue an OMS to inform EDCC of stolen meter.
Gas - please call Central Dispatch at speed dial 81 or 800-261-9325 to inform of stolen meter.
- ☐ Fraud
If identity theft, including minor child on service, please issue Identity Theft Affidavit.
- ☐ Revenue Protection
ex. Unbilled Meter
Underbilled Meter
Meter Tampering
Theft of Service
- ☐ Other

*Please indicate if you have sent OMS, called Central Dispatch, sent Identity Theft Affidavit, issued Start or Stop Service or any other action you may have taken in conjunction with this form. If no action taken, please indicate none.

*Customer Name:
 *Customer Address:
 *City: *State:
 *CSS Account #:
 *Meter #:

Callers Name If Different From Listed Above:
 Callers Contact Phone #:

*Please list any additional information that may be pertinent to the investigation.

BU: CS
 Form Owner: Kurt Russell
 Date Created: 01/20/2005

Close
Continue
Start Over

Last Modified: 11/20/03 15:08:41
WEForms\Forms\Released\Reporting_Theft_Fraud.htm
Visit today
Visit archive

- A claim of Identity Theft is not a claim until
 - Customer has submitted a signed and notarized affidavit
 - A police report alleging the offense
- The affidavit
 - Can be created in-house or the downloaded affidavit from the FTC website
 - Provides you with the authorization to investigate and validate the information provided

Identity Theft Affidavit

we energies



To efficiently resolve the current situation regarding the electric and/or natural gas charges that you are disputing, we need some more information from you.

Please complete, initial and date each page of this form, and mail it to us along with your supporting documentation within 15 days. You must include a copy of a photo identification card. If you don't have a driver's license, state ID or military card, please submit some other photo identification that lists your date of birth and/or Social Security Number.

Personal Information

Name: _____ Date of Birth: ____/____/____
 Address: _____ Daytime phone: (____) _____
 City: _____ State: _____ Zip: _____ Evening phone: (____) _____
 Social Security Number: _____ Email address: _____
 Driver's License Number: _____ State: _____ Issued: ____/____/____ Expires: ____/____/____
 Marital status: ☐ Single ☐ Inevitably married ☐ Married ☐ Legally separated ☐ Divorced ☐ Widowed
 Current employer: _____ Employer's address: _____
 Employer's address: _____ City: _____ State: _____ Zip: _____

Background Information

1. Do you own the property where you currently live? ☐ Yes ☐ No If No, who owns the property?
 Owner's name: _____ Daytime phone: (____) _____
 Address: _____ Evening phone: (____) _____
 City: _____ State: _____ Zip: _____

2. When did you move into your home at the current address? Month: _____ Year: _____

3. Does anyone else live at this address with you? ☐ Yes ☐ No If Yes, please specify:

Name	Age	Relationship (e.g. spouse, domestic partner, child, sibling, etc.)

4. What is the service address, account number and time period that is under dispute?

Address: _____ Account number: _____
 City: _____ State: _____ Zip: _____ Time period: ____/____/____ to: ____/____/____

5. Did you live at this service address during the disputed time period? ☐ Yes ☐ No If No, where did you live?

Address: _____ City: _____ State: _____ Zip: _____

Initials: _____
 Date: ____/____/____

6. Did you own the property at which you lived during the disputed time period? ☐ Yes ☐ No If No, who did?

Owner's name: _____ Phone: (____) _____
 Address: _____ City: _____ State: _____ Zip: _____

7. Did anyone else live with you at this property during the disputed time period? ☐ Yes ☐ No If Yes, please specify:

Name	Age	Relationship (e.g. spouse, domestic partner, child, sibling, etc.)

8. Have you or anyone else in your household now or during the disputed time period used both known under any other name?

☐ Yes ☐ No If Yes, please specify:

Current Name	Previous Name

9. Do you know the person who was using the electricity or natural gas during the disputed time period? ☐ Yes ☐ No

If Yes, who is it? Where does this person live now? What is their relationship to you?

Name: _____ Phone: (____) _____
 Address: _____ Relationship: _____
 City: _____ State: _____ Zip: _____

10. How did you discover the disputed charges?

11. Are there any comments you would like to make regarding this dispute?

Supporting Documentation

You must provide a copy of a photo identification card. If you don't have a driver's license, state ID or military card, please submit some other photo identification that lists your date of birth and/or Social Security Number.

In addition to this photo identification, please provide any of the following documentation that will help us investigate your dispute. Please check the appropriate box for each item that you are providing.

- ☐ **Required: copies of police reports regarding theft of identification or misuse of your identity.**
- ☐ A copy of rental lease agreement listing your address and dates of residency during the dates of disputed service.
- ☐ A copy of a homeowner's deed showing ownership of the home you lived in during the dates of disputed service.
- ☐ Copies of utility bills (electric, gas, telephone, water) in your name during the dates of disputed service.
- ☐ Notarized statement from a landlord stating your residency at a different address during the dates of disputed service.
- ☐ Notarized statement from your city, township or county courthouse verifying your residency at a different address during the dates of disputed service.
- ☐ Notarized statement from employer or aid office verifying your employment and residency during the dates of disputed service.
- ☐ Other dated documents that may verify your whereabouts during the dates of disputed service (credit card statements, auto loans, automobile insurance, etc.).

All forms of supporting documentation must show the actual home property street address. We will not accept items that show a post office box as your home address.

Presentation of these documents aids in our investigation. It does not automatically release you from responsibility for the charges. We Energies may verify all sources of information you provide and may utilize credit bureau reports to verify supporting documentation.

Reporting Fraud

If you believe you are a victim of fraud concerning your We Energies account, contact the following agencies for assistance in identifying any incorrect credit information they may have on you.

TransUnion Credit Bureau*	(800) 680-7789	www.tucb.com
Equifax, fraud department	(800) 525-6285	www.equifax.com
Experian (formerly TILV)	(888) 397-3742	www.experian.com

**Note: We Energies makes reports only to TransUnion Credit Bureau. You may want to contact other major credit bureaus to inquire about your credit status.*

It is a crime for any person to use a Social Security Number with the intent to commit fraud. You may want to contact the Social Security Administration Fraud Hotline at (800) 269-0271 and your local police department to report fraudulent use of your Social Security Number.

Initials: _____
Date: ____/____/____



Authorization and Release

I, _____, state as follows.

I expressly authorize, without reservation, We Energies and their affiliates, representatives, agents or employees to contact and obtain information from a references (personal and professional), employers, public agencies, licensing authorities and educational institutions and to otherwise verify the accuracy of all information provided by me in this Identity Theft Affidavit.

I hereby release, We Energies, their affiliates, agents, employees and representatives from any and all legal responsibility or liability for the acts performed in obtaining information to evaluate my dispute and investigate my background, credentials, qualifications and the factual allegations related to identity theft. I hereby further authorize any parties (including employees, landlords, organizations or others listed in this Identity Theft Affidavit) to release any information they may have about me to We Energies and their affiliates, agents, employees and representatives. I also release, from any and all liability for any damage, all persons, companies, schools and organizations (and all persons connected with them) who provide such information to We Energies and their affiliates.

A photocopy of this authorization shall be as valid as the original. This authorization applies to my past and future records. This authorization waives any requirements that it must be used within a certain period of time following the date of its execution. I also hereby release We Energies from all legal responsibility or liability that may arise from the acts I authorize above.

Note: If you are alleging identity theft, this document must be signed in the presence of the notary public and include a copy of the police report. A notary public may be found at most banks, insurance agencies or law offices. Knowingly submitting false information on this form could subject you to criminal prosecution for perjury and may result in We Energies billing you for the costs of the investigation.

I declare under penalty of perjury that the information I have provided in this affidavit is true and correct to the best of my knowledge.

(signature)

(date signed)

(notary)

Please mail the completed document with all supporting documentation within 15 days to:

**We Energies
Revenue Protection / Energy Theft and Fraud (A180)
P.O. Box 2046
Milwaukee, WI 53201-2046**

Initials: _____
Date: ____/____/____

STATE OF WISCONSIN)
) ss.
 WASHINGTON COUNTY)

SUBPOENA FOR
 BANK RECORDS

In Circuit Court, County of Washington:

Before the Honorable Patrick J. Faragher

THE STATE OF WISCONSIN TO:

WE ENERGIES
 LE Desk 414-221-2617
 Kurt W. Roussell, Manager - Revenue Protection
 Desk # (414) 221-3634
 Fax # (414) 221-2214

WHEREAS, Detective Joel Clausung, of the Washington County Sheriff's Department has indicated to said Court, upon oath and by affidavit, that he is investigating an Identity Theft in violation of Section 943.201, Wisconsin Statutes, and

WHEREAS, Detective Clausung believes that production of all information, including but not limited to, the name, phone number, and subscriber information, for the WE Energies account for which the Susan Marx OM MasterCard, account number 5466 4100 0211 9888, was utilized to pay for services to WE Energies on 9-25-08 and 10-21-08 may assist in this investigation;

WHEREAS, said records are in the custody of WE ENERGIES, LE Desk 414-221-2617, Kurt W. Roussell, Manager - Revenue Protection, Desk # (414) 221-3634, Fax # (414) 221-2214;

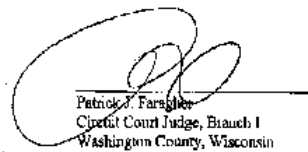
NOW, THEREFORE, in the name of the State of Wisconsin, WE ENERGIES is commanded to produce into the custody of Detective Clausung, or his designee, the above-described records. Said subpoena returnable to the Washington County Circuit Court, West Bend, Wisconsin.

ANY UNLAWFUL REFUSAL TO PRODUCE SAID DOCUMENT IS PUNISHABLE AS A CONTEMPT OF COURT UNDER CHAPTER 785, WISCONSIN STATUTES.

DESTRUCTION OF A SUBPOENA DOCUMENT IS PUNISHABLE AS A CLASS I FELONY, PURSUANT TO SECTION 946.60, WISCONSIN STATUTES, CARRYING A MAXIMUM PENALTY OF A FINE NOT TO EXCEED \$10,000.00 OR IMPRISONMENT NOT TO EXCEED 3.5 YEARS, OR BOTH.

Dated this 6 day of January, 2009.

"IN DUPLICATE"


 Patrick J. Faragher
 Circuit Court Judge, Branch I
 Washington County, Wisconsin

□ Victim

- Has the right to all information regarding the account in their name. Law enforcement will be requiring the victim for copies of all billing information for evidence. Be willing to provide this information.
- Do not release the information to any other person or agency unless you have a signed consent form from the victim. Frequently, Police Departments will have the victim sign an authorization to get the information. Keep a copy on file.

□ Law enforcement inquiries

- If the account is not in the name of the victim and the suspect used a credit card, you should require the agency to subpoena the records because the account is in a different name.

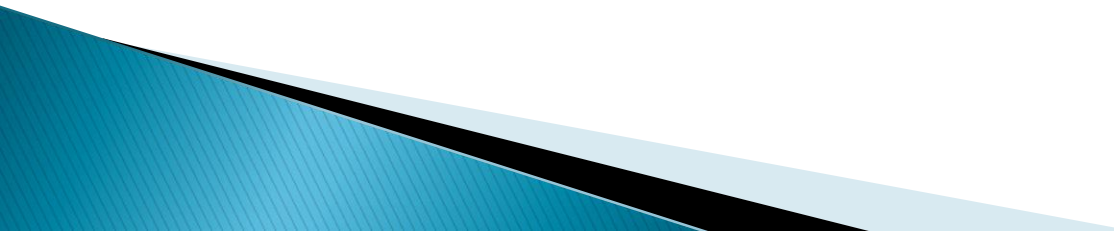
- ❑ Law enforcement needs all of the information in the account including customer and dates of service
- ❑ Customer identification information
 - ❑ Any additional customers on the account
- ❑ Payment and billing information
- ❑ Relevant customer contacts related to the offense.
 - ❑ Frequently, the motive was the disconnection of service and our requiring a payment.
- ❑ Any proof the payment was provided to you.
- ❑ In regular “identity theft” cases, any documentation provided to establish service
- ❑ All notes added to the account by the employee regarding the transaction
- ❑ All proof that payment was received by an outside vendor (if appropriate)

- Any phone recordings and any Caller ID information if available

The screenshot displays the Qiniti Desktop application interface. The top navigation bar includes links for Back, Teams, Recordings, Evaluations, and Reports. Below this, there are tabs for Files, Schedules, Classifications, and Agent Activity. The main content area is titled 'Kurt's Queries' and shows a 'View List' of recordings. The table lists various recordings with columns for Date, Time, Last Played By, Duration, D..., ANI, Numbe..., Plan Type, Status, Stat..., and Connection ID. The bottom of the interface features a media player for a selected recording, showing the name 'Miisha Johnson' and a timestamp of 10/21/2008 5:08 PM. The Windows taskbar at the bottom shows the Start button and several open applications.

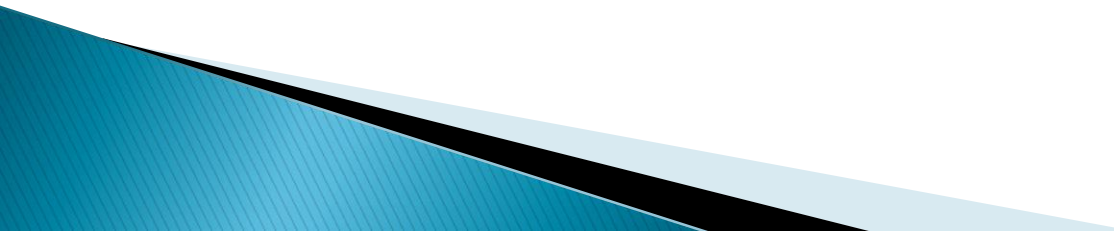
Date	Time	Last Played By	Duration...	D...	ANI	Numbe...	Plan Type	Status	Stat...	Connection ID
2008-10-21	16:11:00.000		3:45	2...		0	Continuous Record	Active	1	4ab9526-da3f-4c
2008-10-21	16:16:36.000		9:00	1...	2626976054	0	Continuous Record	Active	1	bc629aec-a8ed-4c
2008-10-21	16:27:51.000		3:12	1...	4147324454	0	Continuous Record	Active	1	a16c945c-beeb-4c
2008-10-21	16:33:01.000		2:21	1...	4142642163	0	Continuous Record	Active	1	f67a9f07-6955-49
2008-10-21	16:37:31.000		2:51	1...	4146987880	0	Continuous Record	Active	1	58b90bf7-d627-4c
2008-10-21	16:43:24.000		:16		4148733998	0	Continuous Record	Active	1	dec04a92-6056-4f
2008-10-21	16:43:52.000		6:25		2626058467	0	Continuous Record	Active	1	d26d90f8-3dd4-4
2008-10-21	16:56:09.000		1:59	1...	4144479932	0	Continuous Record	Active	1	3e78801d-65d7-4
2008-10-21	16:53:34.000		4:34	1...	4144479932	0	Continuous Record	Active	1	26136ee1-483a-4c
2008-10-21	16:47:40.000		14:20	2...		0	Continuous Record	Active	1	13666217-21b8-4c
2008-10-21	17:05:29.000		1:14	1...	4144267153	0	Continuous Record	Active	1	3f9210fb-ff24-48f
2008-10-21	17:00:35.000		6:55		4147916589	0	Continuous Record	Active	1	5501b1e6-e039-4c
2008-10-21	17:10:58.000		2:05	2...		0	Continuous Record	Active	1	336c3ca3-8f22-4b
2008-10-21	17:15:01.000		:06		8888232943	0	Continuous Record	Active	1	
2008-10-21	17:15:12.000		5:01		8888232943	0	Continuous Record	Active	1	2bb7704d-8272-4
2008-10-21	17:08:57.000	Roussell, Kurt	12:49	1...	8888232943,9209044893	0	Continuous Record	Active	1	db0249aa-7348-4
2008-10-21	17:15:04.000		8:03	1...	9205584584	0	Continuous Record	Active	1	30ee723d-6190-4c
2008-10-21	17:24:59.000		3:36	1...	4147503234	0	Continuous Record	Active	1	de5984cf-a5c3-47
2008-10-21	17:29:44.000		3:23	1...	2626341265	0	Continuous Record	Active	1	87c519fd-ebb2-4c

Departmental Key Elements

- ▶ Detection
 - ▶ Investigation
 - ▶ Collection of Revenue Lost
 - ▶ Prosecution
 - ▶ Prevention
- 

Establishing a Program

Key areas for support and communications
Upper Management Awareness and Support.

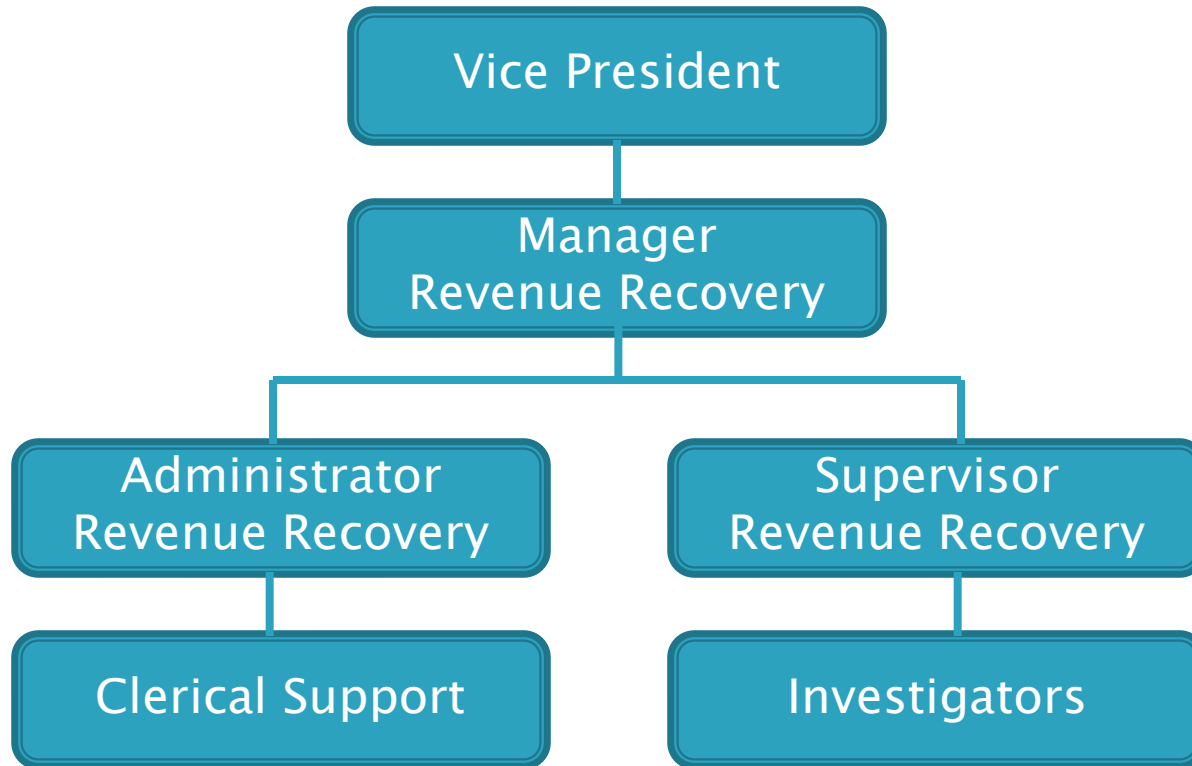
- Employee Awareness.
 - Customer Awareness.
 - Law Enforcement Cooperation.
 - Regulatory Agency Endorsement.
 - Code Enforcement Support.
 - State or District Attorney's Office Cooperation.
- 

Mission Statement

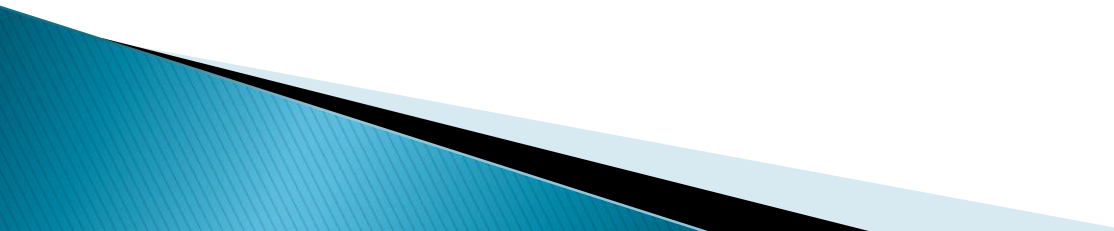
Identify, investigate and collect lost revenues resulting from theft of service, irregular metering conditions and cases of fraud. The function of a Revenue Recovery unit is to prevent cases of this nature from occurring and its goal is to minimize the Company's losses associated therewith.



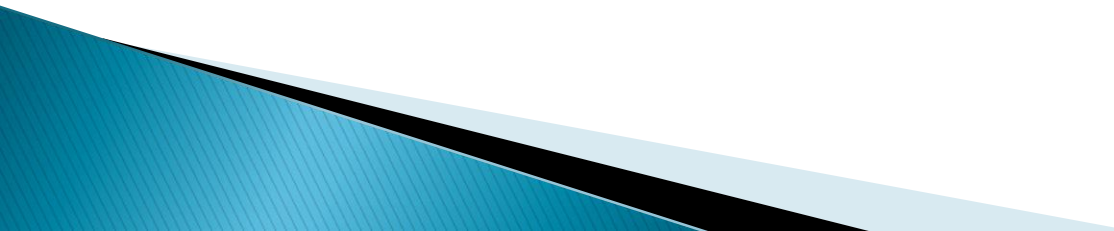
Sample Revenue Protection Organization Chart



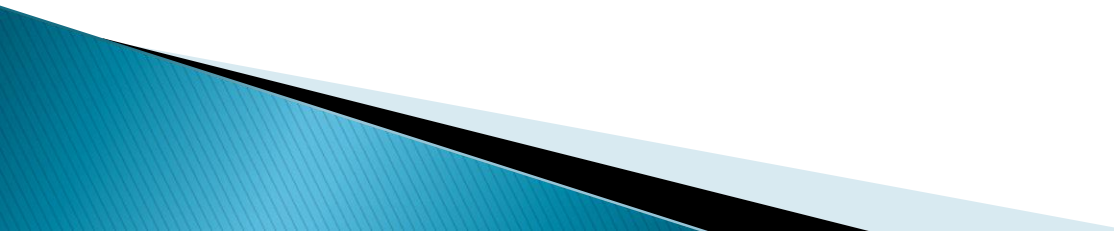
Policies and Procedures

- ▶ Meant to be standardized guidelines for detection, investigation, and collection of revenue losses.
 - ▶ Statement of Policy declares the utility's commitment to reducing the losses and the collection of monies due.
- 

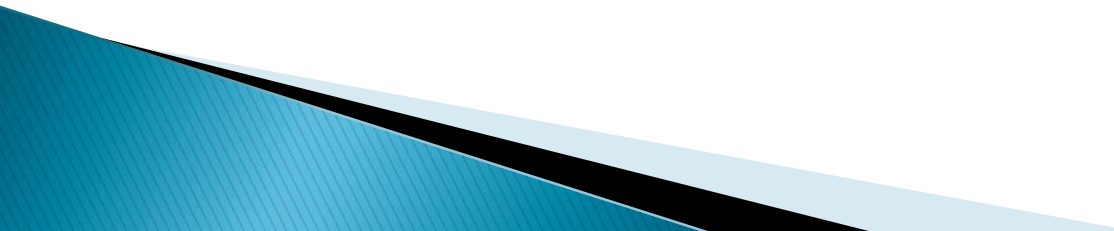
Policies and Procedures (cont.)

- ▶ Statement of Policy should include:
 - Employee Theft of Service
 - Conducting an Investigation
 - Incentive Award
 - Fraud/Theft by Deception
 - Prosecution/Litigation
 - Cut for Nonpayment Accounts
- 

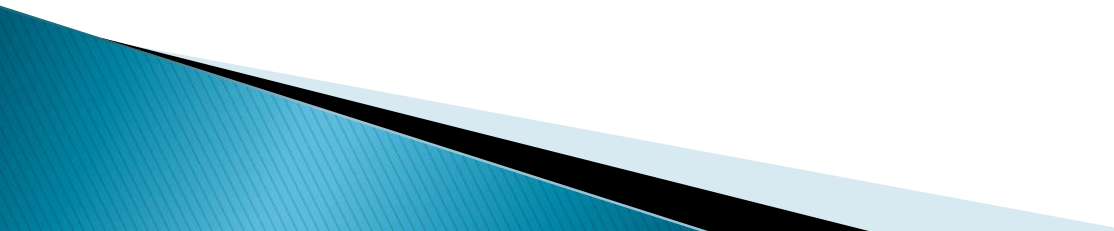
Statement of Policy (cont.)

- Meter Sealing Program
 - Current Transformer Rated Accounts
 - Missing or Stolen Meters
 - Collection of Lost Revenue
 - Collection of Investigative Costs
- 


Employee Training

- ▶ Training is key on what to look for.
 - Metering Services (Meter Readers, Reconnect & Disconnect, Service Techs), Engineers, Energy Services, office personnel, and new employees are the department's "eyes and ears".
- 

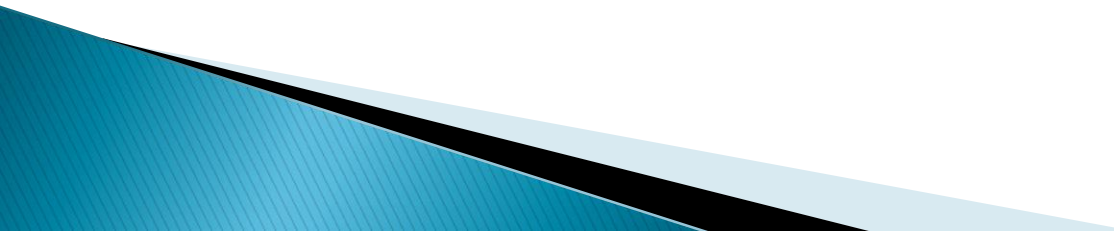
Employee Training (cont.)

- ▶ Those with direct contact with the customer such as Customer Service may be a source of leads.
 - ▶ Billing Department personnel who review accounts should alert Revenue Protection when irregular consumption patterns and low kW vs. kWh are detected.
 - ▶ Fraud is also on the rise and if changes in the name occurs frequently, Credit Dept and Customer Service personnel may trigger an invest.
- 

Personal Safety

- ▶ Safety needs to be the most important part of any department.
 - ▶ Field personnel and particularly Revenue Protection Investigators should always be alert for:
 - Potentially irate customers.
 - Vicious animals.
 - Dangerous, explosive wiring and meter conditions.
 - ▶ NO AMOUNT OF THEFT IS WORTH YOUR LIFE.
- 

Conducting Field Investigations

- ▶ Do not warn customer of pending investigation
 - ▶ Assume there is a theft until proven otherwise
 - ▶ Check meter for possible tampering
 - Look for tool marks or scratching
 - Broken equipment
 - Seal tampering
 - Splices at weatherhead
 - Tampering with index
- 

Conducting Field Investigations

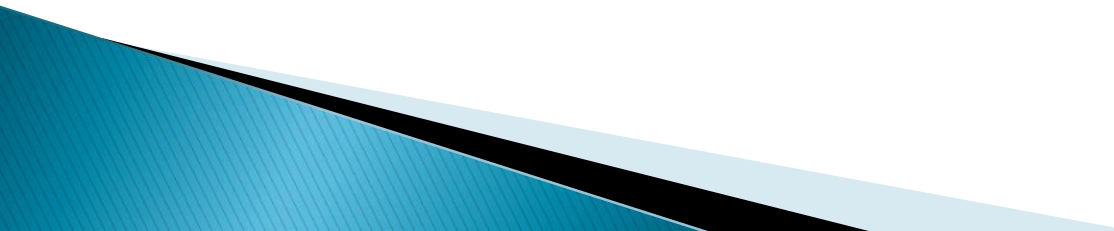
- ▶ Check valves for tampering or other damage
- ▶ Check meter bar for tampering
- ▶ Confirm correct meter is at premises
- ▶ Confirm lock status of meter
- ▶ If severely damaged, remove or replace meter as appropriate
- ▶ Handle as evidence, photograph, and document, document, document
 - Who, what, where, why, and when

Conducting Field Investigations

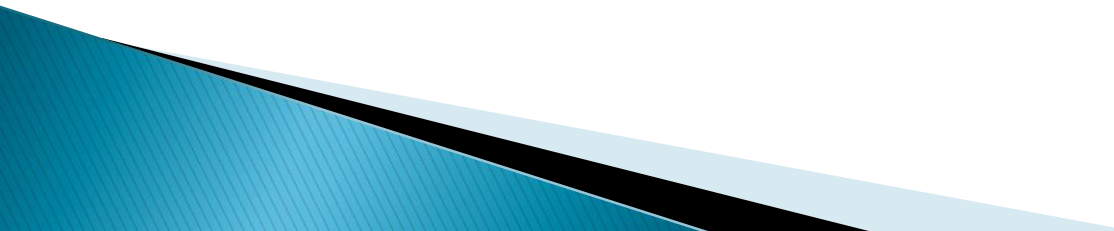
- ▶ Document everything you find
 - Meters, seals, jumpers, disconnection tags, broken locks, etc.
 - Photograph everything in an “as found” condition
 - Always take a “reference photo”
 - Front of property to capture address
 - Rear of property to show relationship to other identifying markers
 - Maintain a “chain of custody”
 - Use a form that documents what person has touched or possessed the evidence.
 - Who had it and gave it to who?

Evidence

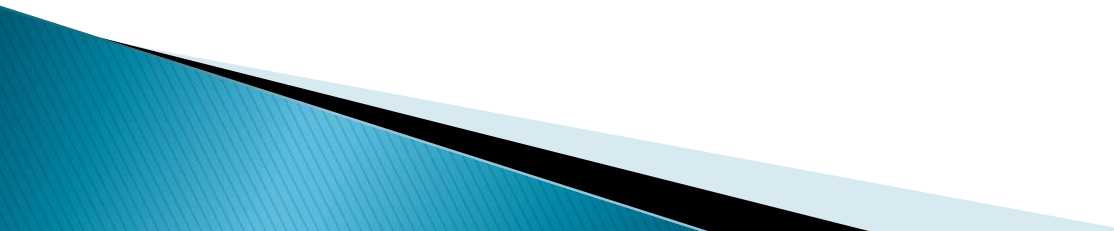
Types of Evidence

- ▶ **Direct:** The testimony of a witness's personal experience of hearing, seeing, smelling, tasting or feeling directly related to the facts of the case.
 - ▶ **Physical:** Any physical item relevant to the case that tends to prove the facts in question before the Court.
 - ▶ **Opinion:** Presented by an "Expert Witness," a person, who by virtue of education, training or experience has knowledge relevant to the facts before the Court even though they did not witness the offense.
 - ▶ **Documentary:** Evidence in a written or printed form such as photographs, billing records, or contracts for service.
- 

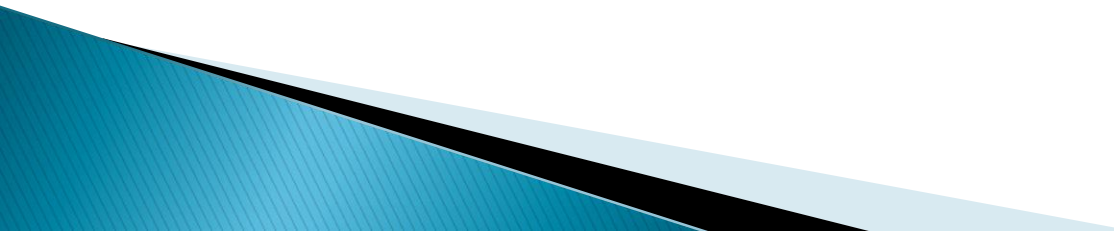
Evidence Terms

- ▶ **Admissible:** The evidence must have been lawfully obtained.
 - ▶ **Relative:** The evidence must be relative to the case and the facts before the Court.
 - ▶ **Competency:** You must be able to positively identify it as the evidence collected during the investigation, and provide documentation showing that the chain of custody of the evidence has been maintained.
- 

Evidence Collection

- ▶ Document everything you find
 - ▶ meters, seals, jumpers, disconnection tags, broken locks, etc.
 - ▶ photograph everything in an “as found” condition
 - ▶ always take a “reference photo”
 - ▶ front of property to capture address
 - ▶ rear of property to show relationship to other identifying markers
- 

Evidence Collection

- ▶ Maintain a “chain of custody”
 - ▶ Use a form that documents what person has touched or possessed the evidence.
 - ▶ Who had it and gave it to who?
- 

Evidence Collection

EVIDENCE BAG

REVENUE PROTECTION

234 Electricity Street
Anywhere, USA 12345

Case # _____
To be completed by Revenue Protection

Recovery Date: ____/____/____

Time: _____

Customer Account #: _____

Meter Number: _____

INVESTIGATION INFORMATION

Name of Field Personnel: _____

ID Number: _____

Service Center: _____

Cell Phone Number: _____

Signature: _____

Address Where Evidence Was Discovered (include City and State): _____

Description of Item: _____

Special Conditions/Comments: _____

CONDITION(S) FOUND

- | | | |
|--------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Broken seal on sealing ring | <input type="checkbox"/> Shiny meter blades | <input type="checkbox"/> Socket jumped |
| <input type="checkbox"/> Broken seal on meter socket | <input type="checkbox"/> Burned meter blades | <input type="checkbox"/> Open test switches |
| <input type="checkbox"/> Broken seal on meter cover | <input type="checkbox"/> Damaged parts in meter | <input type="checkbox"/> Short in test switches |
| <input type="checkbox"/> Broken seal on demand reset | <input type="checkbox"/> Foreign object in meter | <input type="checkbox"/> Bypass of meter at VT/CT |
| <input type="checkbox"/> Meter socket burned | <input type="checkbox"/> Hole in meter glass | <input type="checkbox"/> Wire tap ahead of meter |
| <input type="checkbox"/> Meter box damaged from prying | <input type="checkbox"/> Open potential clip | <input type="checkbox"/> Load wire on line side |
| <input type="checkbox"/> Hole in meter box | <input type="checkbox"/> Tool marks on meter | <input type="checkbox"/> Self reconnect at meter |
| <input type="checkbox"/> Lock damaged/removed | <input type="checkbox"/> Inverted meter | <input type="checkbox"/> Self reconnect at weather head |
| <input type="checkbox"/> Stolen meter installed | <input type="checkbox"/> Incorrect multiplier/ratio | <input type="checkbox"/> Self reconnect at pole |
| <input type="checkbox"/> Other: _____ | | |

FIELD ACTION TAKEN

- | | | |
|-----------------------------------------------------|---------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Reconnected service | <input type="checkbox"/> City inspection required | <input type="checkbox"/> Installed lock on meter box |
| <input type="checkbox"/> Disconnected at meter | <input type="checkbox"/> Replaced meter | <input type="checkbox"/> Installed locking sealing ring |
| <input type="checkbox"/> Disconnect at weather head | <input type="checkbox"/> Ordered meter test | <input type="checkbox"/> Replaced meter socket cover |
| <input type="checkbox"/> Disconnect at pole | <input type="checkbox"/> Installed check meter | <input type="checkbox"/> Removed jumpers/objects |
| <input type="checkbox"/> Other: _____ | | |

INVESTIGATION CHECKLIST

- | | |
|----------------------------------------------------------------------|-------------------------------------------------------------------------|
| <input type="checkbox"/> Inspect all components of installation | <input type="checkbox"/> Re-secure meter enclosure with locking devices |
| <input type="checkbox"/> Report findings to Revenue Protection | <input type="checkbox"/> Place gold seal on meter |
| <input type="checkbox"/> Photograph tampered equipment, installation | <input type="checkbox"/> Bag or tag items removed as evidence |
| <input type="checkbox"/> Correct hazardous conditions | <input type="checkbox"/> Notify customer in service status |
| <input type="checkbox"/> Remove all unauthorized devices (jumpers.) | <input type="checkbox"/> Update service order in CAD |
| <input type="checkbox"/> Repair/replace damaged Company equip. | <input type="checkbox"/> Send to Revenue Protection |

CHAIN OF CUSTODY

Released by: _____	Date: ____/____/____	Released by: _____	Date: ____/____/____
Print Name: _____		Print Name: _____	
Signature: _____		Signature: _____	
Released by: _____	Date: ____/____/____	Released by: _____	Date: ____/____/____
Print Name: _____		Print Name: _____	
Signature: _____		Signature: _____	

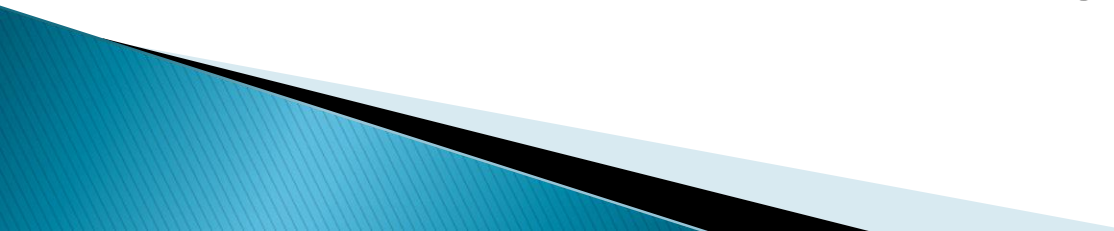
**WARNING: THIS CONTAINER IS TAMPER-EVIDENT
THIS BAG TO BE OPENED BY AUTHORIZED PERSONNEL ONLY**

Photographic Evidence

Photographic Evidence

- ▶ Photographic evidence is a valuable tool in both civil and criminal manners.
- ▶ Investigators must have a camera as part of their equipment.
 - 35mm is the established standard as the negatives cannot be modified
 - Digital photographs are now readily accepted in Court as long as the following rules are followed:
 - The original “raw” file is maintained and unmodified (photoshopped).
 - Digitally enhanced photographs may be used, however, the modified photo should be renamed to another file name so the original file is available.

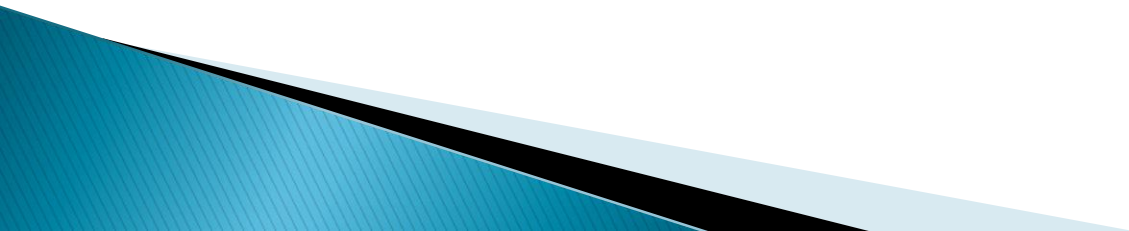
Guidelines for ensuring your digital photographs are admissible

- ▶ Develop a Standard Operating Procedure (SOP), Department Policy, or General Order on the use of digital imaging
 - ▶ The SOP should include:
 - when used
 - chain of custody
 - image security
 - image enhancement
 - release and availability of digital images
- 

Photographic Evidence

- ▶ A minimum of 3 photographs should be taken at the scene:
 - A “reference” photograph showing the location of the incident (address)
 - A photograph of the “as found” condition
 - A photograph of the “as left” condition

Interviewing the Customer



Interview vs Interrogation

▶ Interview

- Non-Accusatory
- Conversational Dialogue
- Gathering Information
- Time is Limited
- Take Notes

▶ Interrogation

- Accusatory
- Conversational Dominance
- Seeking Admission or Confession
- Time is not Limited
- No Notes

Information Gathering Interview

- ▶ Capture the Pure Version

- Participation Ratio: Interviewer 5% Subject 95%
- Open-ended questions
- No interruptions
- Draw out complete responses through “encouragement phrases.”
- Employ Controlled Silence
 - Even a fool is thought wise if he keeps silent, and discerning if he holds his tongue. Proverbs 17:28
 - Better to remain silent and be thought a fool than to speak out and remove all doubt.--Abraham Lincoln


Calculating Lost Revenue

- ▶ Various methods utilized:
 - Post Consumption History.
 - Check Meter Readings.
 - Connected Load Studies.
 - Previous Histories.
- ▶ REMAIN ACCURATE AND REASONABLE.
- ▶ CONSERVATIVE IS NOT A BAD THING.

Post Consumption Data

Date	KWH'S
▶ 06/27/06	98
▶ 06/28/06	93
▶ 06/29/06	95
▶ 06/30/06	100

Calculating Metering Inaccuracy due to customer tampering

- Jumper Test
 - Progress Energy (Florida) has created the acceptable standard for rebilling the customer.
 - Jumpers attached to Meter Socket
 - #14 Solid – Meter 84% accurate
 - #12 Solid – Meter 72% accurate
 - #10 Stranded – Meter 54% accurate
 - #8 Stranded – Meter 46% accurate
 - #6 Stranded – Meter 34% accurate
 - #4 Stranded – Meter 30% accurate
- 

Calculating Metering Inaccuracy due to customer tampering

- Jumpers wrapped around meter blades
 - #14 Solid – Meter 49% accurate
 - #12 Solid – Meter 47% accurate
 - #10 Stranded – Meter 38% accurate
 - #8 Stranded – Meter 29% accurate
- Jumpers through Cotter Pin Hole and wrapped around blade
 - #14 Solid – Meter 72% accurate
 - #12 Solid – Meter 44% accurate
 - #10 Solid – Meter 42% accurate
 - #10 Stranded – Meter 57% accurate*
- Jumper through Cotter Pin Hole
 - #14 Solid – Meter 98% accurate
 - #12 Solid – Meter 44% accurate

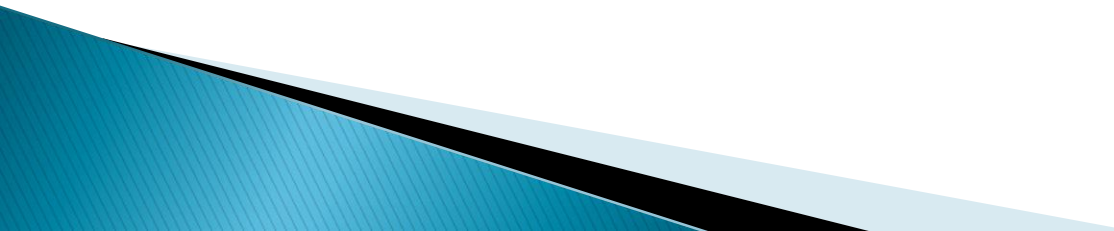
Calculating Metering Inaccuracy due to customer tampering

- What does that mean?
 - Revenue Protection will identify which method was used, and will make an unmetered adjustment to the account
 - Example: Meter shows 3000kWh over period, customer had #10 stranded wire in meter socket.
 - Meter is only 54% accurate
 - True kilowatt hour consumption – 5,555.56
 - Unmetered adjustment – 2,555 kilowatts

Using a Check Meter

<u>Assigned Mtr</u>	<u>Check Mtr</u>	<u>Disparity</u>
400 kWh	900 kWh	500 kWh
475 kWh	1050 kWh	525 kWh

Connected Load Study

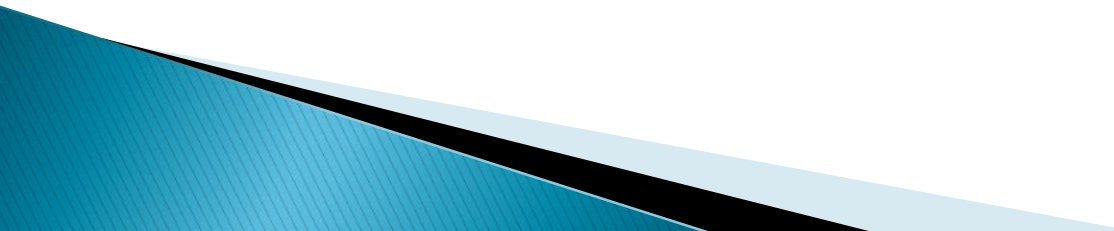
- ▶ **Base Load – Refrigerators/Freezers; Laundry Items; Cooking Items; Dishwashers; TV's; Lighting; Pumps (well/septic); electric items used 12 months**
 - ▶ **Summer Load – Air Conditioning; Pool Filters; Attic Fans; Dehumidifiers**
 - ▶ **Winter Load – Electric Baseboard Heaters; Electric Forced Air Heaters; Heat Pumps**
- 

Calculating Lost Revenue (cont.)

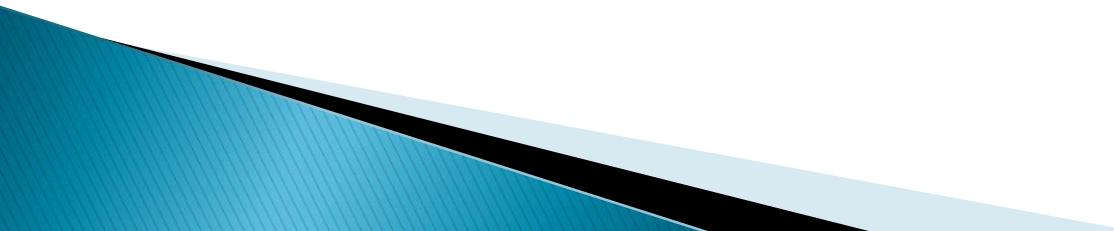
Previous Historical Consumption

RDG DATE	# DAYS IN CYCLE	KWH'S
▶ 06/26/06	21	599
▶ 06/05/06	30	828
▶ 05/06/06	33	773
▶ 04/03/06	29	649

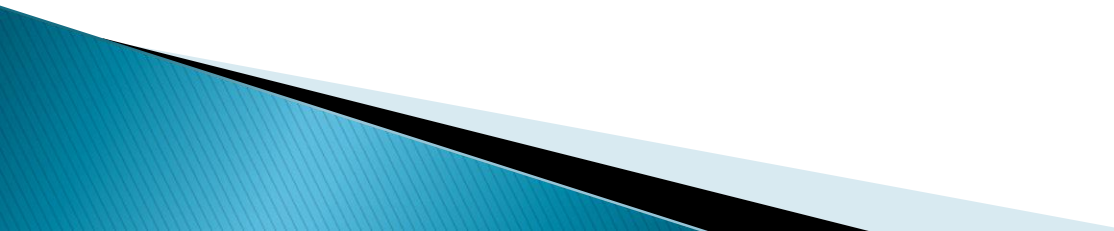
Future Annualized Gain or Restored Revenue

- ▶ Annualize your figures within reason.
 - Impress upper management the amount of money no longer lost because of your efforts.
 - Cost justifying is a continuous task.
 - Therefore, keep an accurate record of all rebillings and monies collected.
- 

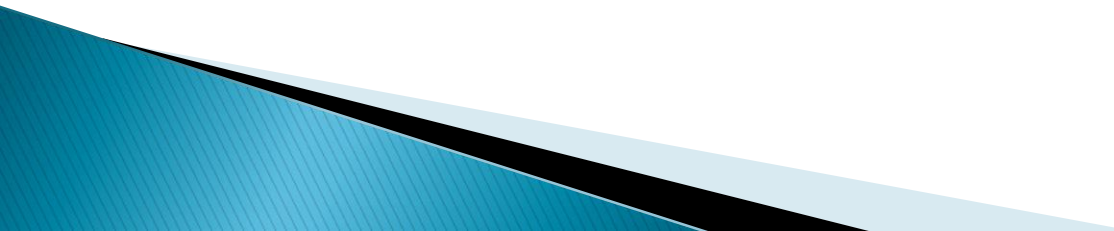
Investigative Costs

- ▶ All costs associated with:
 - Investigation.
 - Prosecution.
 - Collection of revenues.
 - ▶ Method one:
 - Track costs by means of a check list.
 - ▶ Method two:
 - Establish a fixed cost per investigation.
 - Limited to an average. Doesn't cover all costs.
- 


Investigative Costs (cont.)

- ▶ Whether you're permitted to pass the incurred costs directly to customer or not, a record must be kept to provide management with a report of all costs associated.
 - ▶ The billing and collection of investigative costs directly impacts the rate of return of a revenue recovery operation.
- 

Collecting Lost Revenues


- ▶ Remain cost effective.
 - ▶ To achieve success, ensure collection of all lost revenues, whether:
 - Intentional diversion.
 - Investigative costs.
 - Defective equipment.
 - Company created conditions.
- 

Collecting Lost Revenues (cont.)

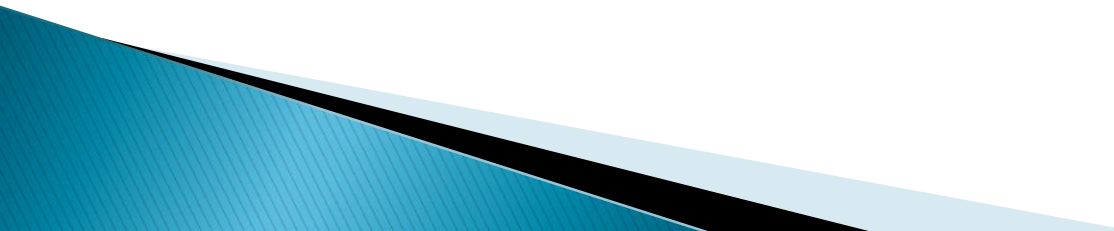
- ▶ First step:
 - Have customer sign document accepting responsibility for the debt.
 - Unlikely, customer can pay in single payment.
 - Be sure any arrangements for payment are detailed with specific dates and dollar amounts due.
 - Explain the consequences if not paid.
 - Objective is to make the utility whole.
 - Have a tracking system to ensure payments are made in a timely fashion.
- 

Litigation

Criminal Prosecution

- ▶ Meet with your local law enforcement agencies and prosecutors PRIOR to requesting any assistance. Relationships are key!
 - ▶ Find out what information THEY require to provide you with the support you will need in the future.
 - ▶ You will probably need to train them on the extent of your local problems and issues.
 - ▶ Know your laws. Find out if there are presumptive evidence statutes in your jurisdiction.
- 


Grand Jury

- ▶ A Grand Jury consists of not more than 23 citizens of a particular county who are summoned by the Assignment Judge. A Grand Jury listens to evidence presented by the Prosecutor and determines whether there is sufficient evidence to return an indictment and allow a trial jury to decide the guilt of the defendant beyond a reasonable doubt.
 - ▶ If the Grand Jury has a reasonable belief that there is sufficient evidence that the defendant has committed the crime (a prima facie case), they may return a "true bill" indictment. An indictment is simply a piece of paper, which informs the defendant of the crime(s) they are charged with. At least 12 members of the Grand Jury must vote for an indictment. If there are not 12 votes for an indictment, the case is "no billed" which means the defendant will not be indicted, and the criminal process is over.
 - ▶ Sometimes, a Grand Jury may remand a matter to a municipal court for a hearing.
 - ▶ It is important to remember that Grand Jury proceedings are secret and therefore cannot be divulged for any reason.
- 

Civil Court

- ▶ Complaints can be filed in civil court against the involved customer in an effort to recover lost revenue. Civil courts are designed to be remedial in nature. Civil matters can be heard by a judge or a jury or resolved in a settlement conference utilizing a mediator. Because there normally is not any incarceration of any of the parties involved in civil proceedings, the elements of proof are “...a preponderance of evidence” as opposed to “...beyond a reasonable doubt”.

Regulatory Hearings

- ▶ Utilities that are governed by Regulatory Agencies, i.e. Public Service Commissions, can be subjected to Regulatory Agency hearings in disputed matters. The customer, or the utility, can request that a hearing be held. In the majority of instances, the Commission appoints the hearing officer, or several Commissioners will serve as the hearing officers. Both parties will present testimony and a determination will be made at the conclusion of the hearing. The recommendation afforded by the hearing officer(s) is not binding and can be appealed by either party to the civil court.
- 

Effective Witness Testimony

- ▶ Prior to your court appearance always refresh your memory by reviewing the case
- ▶ Be prompt for the court appearance
- ▶ Your personal attire should be appropriate (uniform, if applicable)
- ▶ Your demeanor should be calm and confident
- ▶ Be clear and concise in your responses
- ▶ Do not volunteer information unless you are specifically asked
- ▶ If you do not understand a question, ask for clarification-----DO NOT GUESS
- ▶ Be respectful and courteous at all times
- ▶ Respond HONESTLY to all questions
- ▶ If an attorney raised an objection, stop speaking and wait for further direction from the judge
- ▶ Avoid technical terms and slang
- ▶ If you don't know the answer to a question, don't be afraid to say that you don't know

ELECTRICITY
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y'all

