

SPEAKER SUMMARY IURPA CONFERENCE 2016

Opening Remarks

Beverly Doyle – NURPA Chairman and John Kratzinger IURPA Chairman

Welcome

Michael Innocenzo – Senior Vice President and COO – PECO

- Talked about Philadelphia and tourist attractions and history of the City
- PECO has 22 million customers country wide.
- Explained that Revenue Protection relates to a passion for finding something broken or dangerous and feeling the need to fix it
- You need an unique person with unique skills to be doing this type of job
- It is important to share best practices
- It must be noted that Safety is the bottom line
- We have a great opportunity to share info to become safer and better in what we do

Keynote Address

Cheryl LaFleur – Commissioner - Federal Regulatory Commission.

- Touched on the change in infrastructure in the past few years
- Related to issues impacting on the Energy field
- Explained “FERK” – Rates for lines / licensing / reliability, standards, cyber security
- Regulations are State controlled.
- Referred to the “changes shaping” Electricity world
- Transformation on how to generate electricity – pace greater
- Growth of natural gas generation process
- Growth of technology wing / solar / new research
- Must set targets to develop these fields
- New environmental regulations with regard to pollution (coal generation)
- New peaking solutions like gas and water too expensive
- Now wind and solar have taken over.
- Rooftop installations down 70% in cost
- Selling back into the grid is currently a big issue
- New concepts – the buzz word is “reliability”
- Macro trend – getting more difficult to build things.
- Opposition getting more fierce on all levels
- Localization – smaller, bite size, DM, aggregation processes and micro grids
- Back to the future concept.
- Localization of grids very important
- What does it mean for Revenue Protection?
- That new technology is evolving all the time
- We must get leads from different resources
- Data analytics has become the most important issue – understanding “big data” is crucial

- We need to figure out how to harness information – give clues back to the field
- Information is come from data and not from the field anymore
- Changing customer use patterns – due to green power – we need to master this
- Electric cars are creating issues with electricity “feeding back” into the network.
- The impact of marijuana growth has increased – especially in areas where it is legalised – customers are paying in cash – they are mostly not legal and stealing electricity
- Biggest threats are cyber security – echo terrorism – we need to detect and prevent.
- RP to detect – IT to resolve - AMI increases threat, as we now need to react fast
- Importance of RP is linked closely with safety, the public and the customer
- Figuring out the flow of electricity need all the help to assist in keeping workmen safe
- Liaison with role players best done through social media
- The pace of change is increasing and we have to be ahead of this situation
- Core values still the same, we just need to align with new challenges.

The value of Revenue Protection

Guy Cattaruzza – Revenue Meter Systems

- Operate in the State of Connecticut – 331 00 customers - only distribution
- Explained the development of RP from a single person to 9 persons in 2000
- Manager, 7 investigators and 1 Analyst 2 x for Fraud /ID theft
- The need to be able to recover costs has evolved into the “Revenue Recovery concept”
- This relates to the “tracking” of issues and then effectively “closing the loop”
- Successful if there is:-
 - A Champion and Sponsor
 - A Manager with a passion
 - Investigators and Analyst with a passion
 - Metrics and Revenue Tracking in place
 - Diverse skill sets for Investigators
 - Support from other Departments
 - Succession Planning
 - Partnerships between the different role players
- RP group has to justify their existence
- Put up reward system in the company for all employees
- Difficult to motivate increase in manpower / have to build a business case
- Measured – Scorecard 15 – need 20% more than operating costs
- \$ 65 million (2000-2014)
- \$43 million Results billed and secured dollars
- AMI caused more theft – increase in fraud
- Install heavy duty locks - locking everything up (trying to stabilize increase)
- Level zing at that gains – needs more hands / Fraud Specialists.
- Heavy on analysis – “SASS system”
- Amount of events brought back minimized.
- Partnership between Analyst and work force important
- Tampering on weekends and overnight very eminent
- Daily meter reads – match with feeders / transformers
- Partnership with “check meters” system

- Utilities have responsibility to perform Revenue Protection tasks
- Fraud rampant – related to customer movement and false reports
- “Green-dot card scam” – over 250 (phone vending scam system)
- Way Forward – Develop technology / do analytics / team work / communication
- 10% hit rate on analytics
- Believe in protective structures / prevent them going back to tamper again
- Good support from Management and Regulator is very important
- Processes should not be limited to curb theft, but should go back as far as possible
- Secured revenue = what we created – what diminishes (80/20 rule)
- Get search warrant to gain access if necessary (easier than going back and forth)

Revenue Protection in the UK

Mike Wilkinson – UK Revenue Protection Association (UKRPA)

- Highlighted the challenges in Great Britain
- Inspections need to be bi-annual
- Reduction in contact with customers / tip-offs / less interference identified
- Theft Risk Assessment Scheme (TRAS) - Regulator new licence conditions
- Gas and Electricity thefts = 500 – 600million pounds per year
- Company Experian facilitates the scheme
- Costs 1 - 1.5 pounds per year
- Financial penalties for “not making the grade”
- Early indicators not so good – incentives – still in pilot mode
- Metering moving to smart meters by 2020 – 53 million to be installed
- Goal – detect, deter and educate (DDE)
- Doubled the workforce needed - no reduction in RP envisaged in the future
- “TriOpsis” an RP Solution utilized – just gone live with the working tool (26 field operators utilizing it)
- Cloud based mobile phone app. (capture/photos/ tracking/ GPS ext.)
- Process diagram / dashboards / audit trail to manage processes and operations
- It is a relative cheap solution for RP. (\$30 per person per month) Samsung S5 phones
- Hotline for reporting tampering
- Not disconnecting for tampering

Revenue Protection project case study

Ralph Allen & Gregory Harris – City of Philadelphia Water Department

- Focus on Metering Delinquency and restoration operations (repairs)
- Report to City Council
- Detects theft from meter / Illegal reconnection after disconnection / fraud
- Goals of RP is to minimize losses
- “Dig in” (concentrate) on fixing the connection
- Same guys who disconnect also treat tampering
- Delinquency & restoration - repair valve and turn off.
- 90% meters in houses

- Access big issue – send note in advance – if not open – shut off connection
- Meter removed or “jumper line removed”
- Dangerous for workers – always have to be careful
- 50 workers in the field at this stage
- Growing concern and problem growing and growing
- Consumers 30% under poverty level in the area
- When the account is showing forward usage after termination don’t over react
- Be careful maybe the termination was not done correctly.
- Using AMR on some meters – can see illegal acts faster
- Property or meter status is important to analyse
- Lot of times the landlord tampered meters and tenant don’t even know about it
- Some Landlords take off meter after disconnection and do a straight connection
- USTRA Law protects tenants by having to pay only the last 30 days bill
- Fitting anti-tamper seals
- Sophisticated meter bypasses found
- Water hydrants used to take water illegally
- Non-viable properties (vacant sites) meters must be watched to see if they move on
- Theft of pipes and meters also happens frequently
- Some people park their vehicles over the meter to prevent cut-off
- Don’t have theft fees yet – working on that. Do charge for missing meter \$ 175
- Get lied to more than 50% of the time – people fix faults and then report it

Organized Meter Fixer Investigation & Check Meter Case

Tom Marshall – PECO

- Meter Fixer case study from 2009 at PECO
- 6 properties with the same sophisticated style of tampering were identified
- Replaced meters
- Found that current plugs were taken off
- Theory was that they were doing it on a monthly basis
- Signature of different types of tampering identified in meter
- Some 2nd and 4 th pin missing on AMR, whilst others disk screw tightened
- Record on AMR system showed meters stopped and started several times
- Monitored it over 12 months
- Got organized crime unit to do the task
- Goal was to catch someone and then question the methods used
- Wife calls and says her husband is the “meter fixer”
- Got his cell phone number and started to monitor his calls
- Sting operation organized with a search warrant
- Managed to get a journal with all his account information
- Drawings on AMR modules
- Analysed the data and saw that \$614 000 was illegally consumed
- Utility’s lock keys (2) were found on suspect

- Lessons learned – Such type of investigations “too much” for Law Enforcement – Lots of delay to get police to assist in process – Multiple Jurisdictions (police cant coordinate)
- AMI project - meters replaced after realising that the meters were compromised
- In a second case a handyman that worked for Remax was identified
- He learned about tampering with meters from older guys when he was in jail
- The one Customer bragged in bar about his new “Check meter” that saved costs
- It was decided to do a sweeping audit in the area
- Had to give 10 day notice that audits would be done (according to local regulation)
- Decided to put “check meter” at the customers house
- Made it look like normal maintenance – no tampering found - put up check meter
- Found one of the floors were unmetered according to the check meter report
- Went to inspect the premises again and found that he had put up the bypass again
- Necessary actions taken for tampering with a meter

The Do's & don'ts of testifying

Thomas Sansone – Carmody & Torrance

- It is important to show a “level of respect” by dressing up for occasion
- If jury is blue collar – you dress accordingly
- Court procedure is all about perceptions
- Don't let perception become reality (how the judge /jury/ public sees Utilities)
- Don't assume the Jury will dislike the defendant (Robin Hood / David and Goliath)
- Judges sees this as a “victimless incident”
- Stress it is an unsafe situation for the public, home owner, family and first responder
- Fire brigade hazard - water and live wires (illegal connection still live)
- Technical language is confusing to the court officials
- Assume audience has no scientific or technical background
- Explain in “layman's terms”
- Use demonstrative evidence (show don't tell)
- Be proactive – explain why it took so long to detect diversion or criminal action
- Why 6 years? (explain workforce / amount of consumers)
- Statute of limitations – various from State to State / Country to Country
- Try to prove “fraudulent concealment”
- This demonstrates person was “concealing” (this stresses statute of limitations)
- Explain Meter Readers are not Engineers and don't check meters due to time frames.
- Explain tamper codes and tamper checks
- Appeal to Judge / Jury re “sense of fairness” and Equity (they are customers as well)
- Explain the increase in tariffs due to illegal acts.
- Keys to success must be well documented/ graphs / charts / calculations / pictures
- Some judges are too proud to ask – so the onus is on you to sensitise the Judge
- Don't think your Attorneys know everything take them to field to get the experience
- Evidence control important as you will lose the case if your evidence is disorganized