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Efficiency in our Revenue Protection Initiatives

All utilities are spending money on Revenue Protection and Detection Initiatives. The problem is not in the will but in how much it costs. Resources in terms of manpower and money are scarce and priority is claimed, on these resources, often just trying to keep the electrical department operating. Technology is constantly changing and different systems are not compatible with other or existing systems.

NRS 055:2000 4.4 Revenue Protection database states –

4.4.1 A prime requirement of RP is an accurate, up-to-date database that should be used to trigger events in the RP processes.

4.4.2 The database should be a **relational database** (that is, one which has **no duplication of information**) and should be linked, on a network, to the supplier's other relevant databases, such as billing and maintenance. The system should be set up and be fully commissioned prior to the loading of RP project data.

4.4.3 The entering and updating of information should be made the responsibility of one or more fully trained data controllers.

The key point of this statement is the requirement for a **relational database**. What NRS 055:2000 does not explain is where do you get this relational database and how do you maintain it. As mentioned in my first paragraph utilities have huge recourse problems. The answer to this problem is alluded to in NRS 055:2000 in paragraph's 4.1.1 and 4.1.2 –

4.1.1 RP may be undertaken by staff within the supplier's own organization or may be contracted out partially or wholly to another company or organization.

4.1.2 RP should be an ongoing process and not regarded as a once-off fix. Processes, procedures and resources for RP have to be set up on a permanent basis. Initially, additional effort and resources may be necessary to establish the RP processes, to take remedial action in the field and to catch up on payment arrears, etc.

In other words, the solution should be a long-term (Revenue Protection is an ongoing process) contractual relationship with an outside contractor who has the necessary skills/tools based on a commercial win/win scenario.

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The type of data that is required to be captured, includes but must not be limited to –

- Municipal Billing Information
 - Customer Name
 - If the Customer is a Company then you also need details of the Directors etc.
 - Customer Physical Address
 - Customer Postal Address
 - Electricity Meter Number
 - Electricity Meter Reads
 - Meter type
 - Meter Name
 - Customer Tariff
 - Customer Load (Residential, Commercial or LPU)
 - Customer Type (Baker, Industrial Manufacturer, Convenience Shop, Ice Cream Factory etc)
 - Billing Frequency
 - Read Type (automated etc)
 - Read Frequency
 - Water Meter Number
 - Water Meter Reads
- Legacy Data Bases
- Energy Balancing Initiatives reports
- Payment Schedule
- Meter Readers Notes/Observations
- Previous Audit Details
 - Reason for Audit
 - Meter Accuracy
 - Result of Audit
 - Frequency of Audit
- Inspector's Notes/Observations
- Call Centre Reports
- External Reports
 - Society
 - Newspaper, Radio or TV Reports
 - Crime stoppers
 - Reports from other Utility's
 - Feedback from reports.



The above information must be viewed as the minimum information required and any and all alternative or additional sources of consumer information must constantly be sought.

Once all possible data sources have been identified and a process established for importing this data into your Revenue Protection Software a decision must be made as to the frequency that this data is required. Only then can you establish what reports are required, by whom, at what frequency and what needs to be done with these reports.

Using the information captured AND crosschecked, the Utility can now generate intelligent Revenue Protection reports. Bear in mind these reports indicate anomalies with like information

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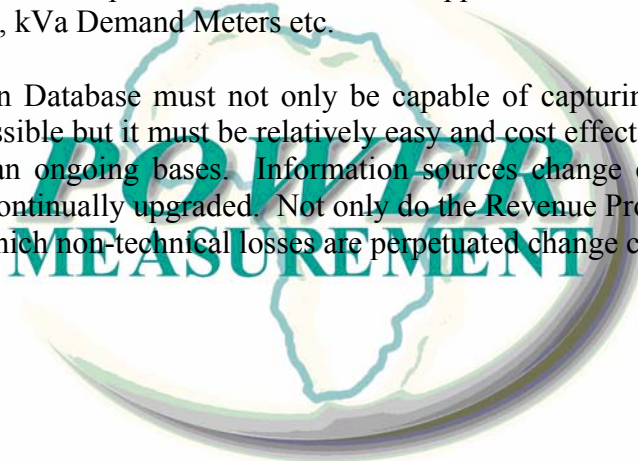
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and in itself is not proof of energy theft. These anomalies need to be investigated by properly trained and authorised staff.

With the information now captured typical types of reports that can be generated include:-

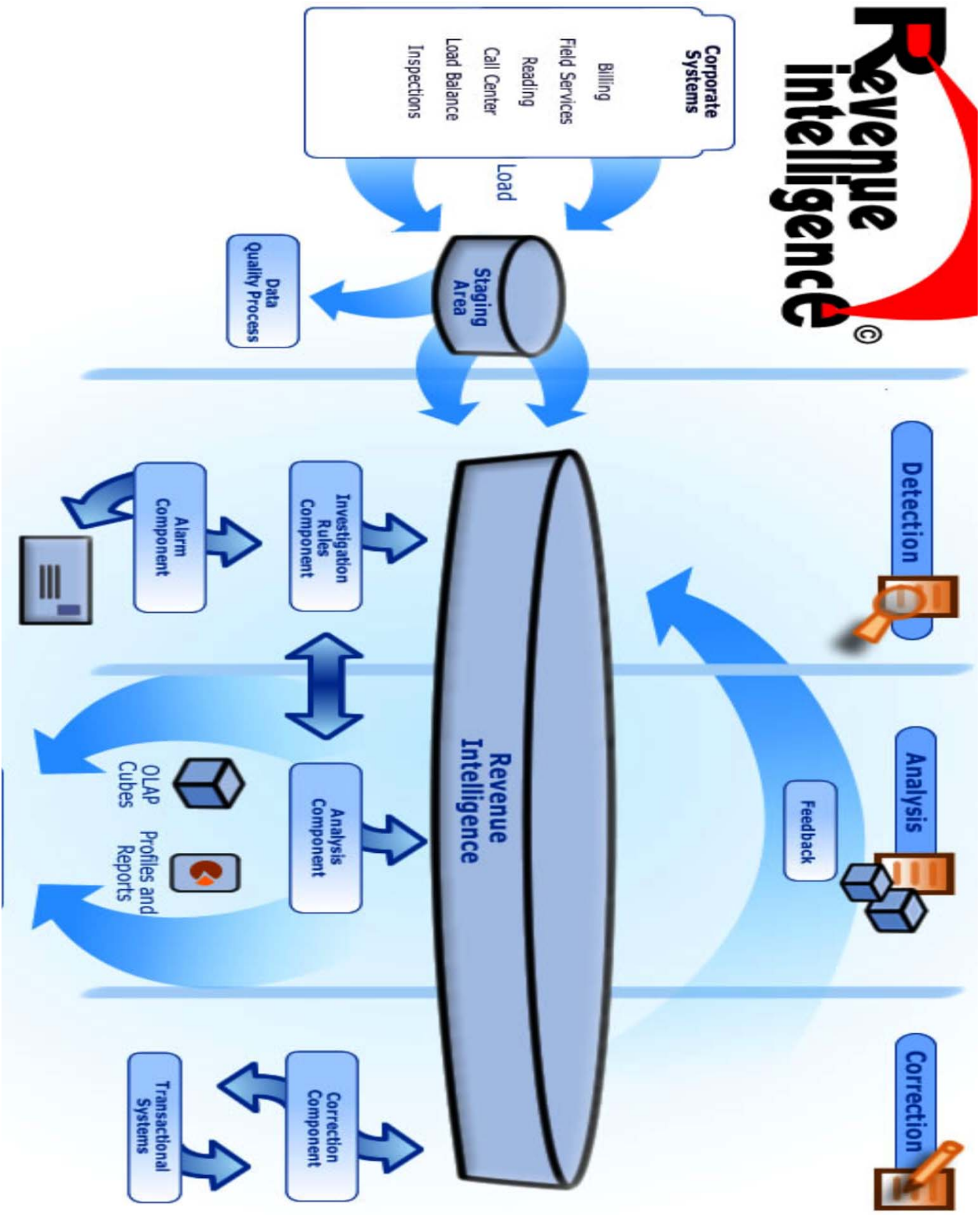
1. A check on water meter consumption against electricity consumption. i.e. If a residential consumer uses X amount of water then typically he uses Y amount of electricity. Show all residential consumers that do not abide by this comparison by more than 10%.
2. Show the electricity consumption for all consumers (Residential, Commercial and LPU) that have been caught with water by-passes over the last 5 years.
3. Show all like commercial ventures e.g. Small grocery shops (with a minimum of 100 trading hours/week with their own bakery. Compare the energy/square meter.
4. Show everyone who on more than 3 occasions over the past 12 months has paid their account more than 45 days late. i.e. Who is aging you account?
5. Sort by highest consumption all commercial supplies. Identify the meter type i.e. Electronic meters, kVa Demand Meters etc.

Your Revenue Protection Database must not only be capable of capturing the information in as automated manner as possible but it must be relatively easy and cost effective to make changes and add additional data on an ongoing bases. Information sources change constantly and Revenue Protection methods are continually upgraded. Not only do the Revenue Protection methods change but also the manner in which non-technical losses are perpetuated change constantly.



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