



**No More Excuses -  
Using mobile phones to document and report  
Suspicions of theft on line**

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**Introduction**

The experience of many years teaches us that most reports regarding the suspicions of electricity theft come from the meter readers, who visit the customers' premises once every two months.

Many varied attempts, intended to hitch and encourage other field employees reaching the customers' premises in various frequencies, to open their eyes and identify attempts by Company customers to disrupt the meter's registration or circumvent it, were unsuccessful. When we approached these employees and asked them why they do not cooperate, we received a nice selection of excuses and reasons, the most noticeable of them were; I did not have a place to write down the details, I was not sure whether it's important to report it, I attempted to call the office but there was no reply, I am sorry I had no camera, I did not have the time to closely check it, and more, and more...

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When the representatives of one of the cellular companies our Company works with approached us, and asked whether we think we might be interested in an application used by municipal parking inspectors, our eyes lit-up.

What does a municipal parking inspector do when he spots an illegally parked vehicle ? He uses the built in application in his mobile phone. First, he takes two clear photos of the vehicle and its location with his phone camera. He then enters the vehicles license plate number and receives online a report of the vehicles status (stolen / counterfeit license plates / vehicle used by an invalid, etc.). After this, from pre-programmed menus he selects the location data, and the parking violation clause. Additionally, the inspector can freely type any comments, voice record his comments, and even voice record the vehicle's owner if a verbal encounter takes place between them. At the end of the procedure, the inspector transmits the built-in report, through Bluetooth communication to a miniature printer in his possession, and attaches the report to the vehicle. The parking report file is automatically transmitted to the municipality back office.

We realized that most of the above described functions fit very well the need for fast and efficient reporting from the field, regarding a suspicion of electricity theft.

- Digital photograph of the meter, cable, and / or customer's electrical installation documenting also the date and time (that cannot be edited);
- Entering the meter number, address, type of suspicion and comments;
- Adding a recorded description of the findings the reporter sees;
- Online transmission of the suspicion to the computer screen in the office, enabling a decision taking and instruction to the employee in the field how he should act, or send at once a crew to the location, as may be necessary.
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## Israel Electric Corporation

About a year and a half ago, we took up the challenge and went out on the road.

A professional team defined the system requirements for field reporting for various needs (such as network maintenance, damages etc.) among them protection of the Company's revenues – reporting suspicions of electricity theft. A number of pilots were performed, leading to improvements both in equipment as well as computerized support required for the system.

On January 27, 2010, the first stage of the reporting system of electricity theft suspicion was launched.

The system was entered into full use in one of the service areas of the Israel Electric Company, which will be used as an applied pilot.

According to plans, the use will be expended within the system to all of the Company's regions (about 1,300 employees permitted to report) during the year 2010.

Throughout year 2010, the system was introduced to 24 more units of the 5 service divisions of the company. 1,385 reports were registered until the end of the year. 437 reports of suspicion of tamper or theft, and 748 reports of damages to the company equipment.

The introduction and assimilation process of the system is rolling, and first operations of interfacing the reporting system to the billing system starting. The next stage will probably take care of the need to turn the system into a two way reporting system that will allow the end users, the Revenue Protection investigators in our case, to use their mobile phone as a remote terminal, and report their findings from the customer's premises.

The experience of many electric power companies around the world, teaches that the transfer to remote reading causes the loss of "company eyes" – the meter readers are no longer in the field. It is known and clear to those engaged with this issue, that no "smart metering" has the power to prevent electricity theft. Therefore, it is necessary to strengthen, encourage, and stimulate the alertness of each Company employee that happens to the customer's premises, to report of any finding in the field that seems to him to be irregular. Equipping the employees with an appropriate application that is part of a multi purpose work tools such as a mobile phone, which in any case is in their use, will make possible an efficient and fast reporting of electricity theft suspicions.

### **Conclusion**

We anticipate and hope that the ability to report comfortably and easily, will once and for all remove from the way, any excuse for not reporting of the phenomena of electricity theft, the neutralization and reduction of which has an important and needed significance in the protection of the Company's revenues.