

Combined Forces With The Police, Gear Up Israel Electric Revenue Protection Efforts

SARPA CONVENTION 2013

**Effective revenue protection:
a critical success factor for utilities**

11-12 July 2013

Hosted by Mossel Bay Municipality



Itzick Michaeli

Revenue Protection Manager

Israel Electric Corporation



90 Years of Electricity



Presentation Overview

- Introduction
- Increase in electricity rates encouraging Electricity Theft
- Combating Electricity Theft
- Israel Electric Security Unit
- Founding the IEC Investigations and Intelligence Unit
- Conducting operations with law enforcement and government agencies
- Exposing cannabis growing hydro laboratories
- Summary

Israel Electric Corporation



customer base:
7.2 million population

2.5 million customers

Total electricity sales

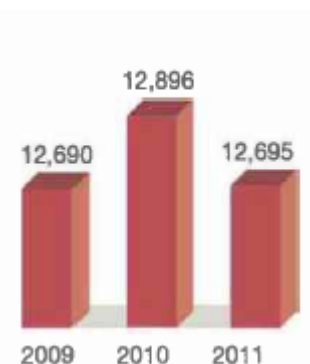
in 2012: 8 billion USD

Size of Israel :

2% of South Africa



Number of employees



IEC Smart Metering Project status :

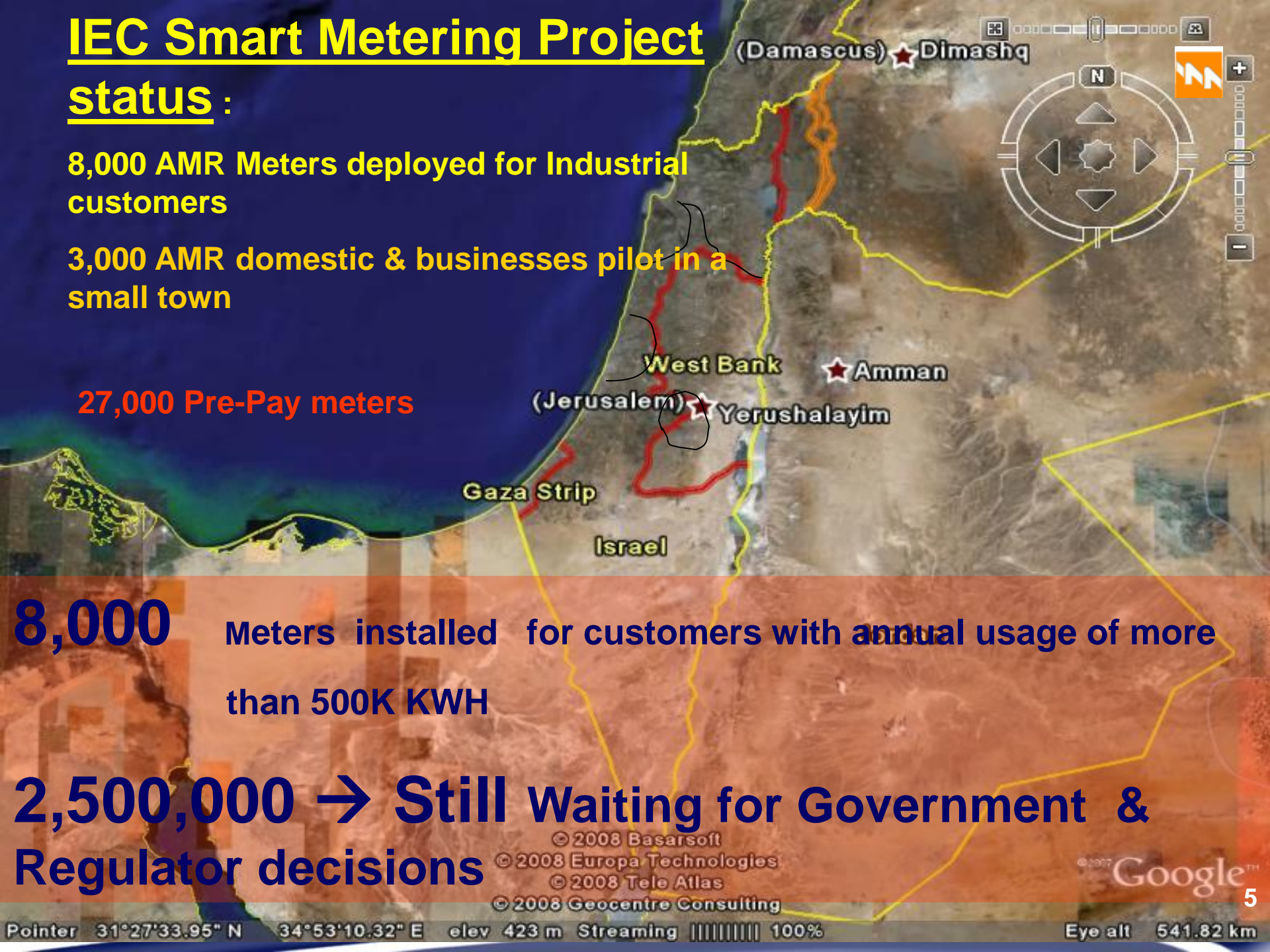
8,000 AMR Meters deployed for Industrial customers

3,000 AMR domestic & businesses pilot in a small town

27,000 Pre-Pay meters

8,000 Meters installed for customers with annual usage of more than 500K KWH

2,500,000 → Still Waiting for Government & Regulator decisions



© 2008 Basarsoft
© 2008 Europa Technologies
© 2008 Tele Atlas
© 2008 Geocentre Consulting

Google™

5

Pointer 31°27'33.95" N 34°53'10.32" E elev 423 m Streaming 100%

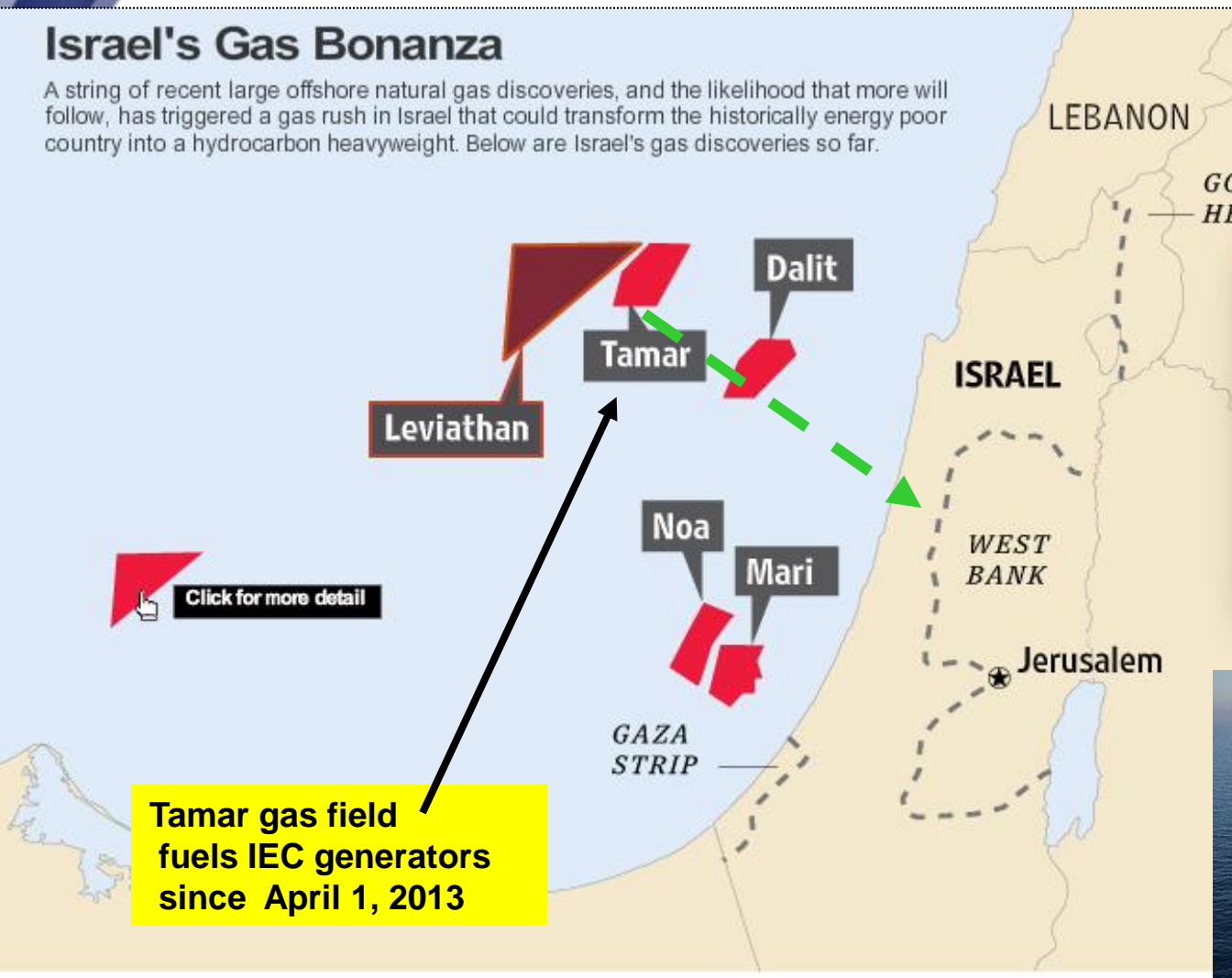
Eye alt 541.82 km

The New Israeli Gas Emirate



Israel's Gas Bonanza

A string of recent large offshore natural gas discoveries, and the likelihood that more will follow, has triggered a gas rush in Israel that could transform the historically energy poor country into a hydrocarbon heavyweight. Below are Israel's gas discoveries so far.



SYRIA

LEBANON

GOLAN
HEIGHTS

ISRAEL

WEST
BANK

Jerusalem

GAZA
STRIP

25 miles
25 km

Leviathan

On Dec. 29, 2010, Noble Energy announces it has made a "significant natural gas discovery" at Leviathan, and confirmed earlier estimates that the field contains 16 trillion cubic feet of natural gas - making it easily the largest exploration find in Noble's history.



**Tamar gas field
fuels IEC generators
since April 1, 2013**



Revenue Protection



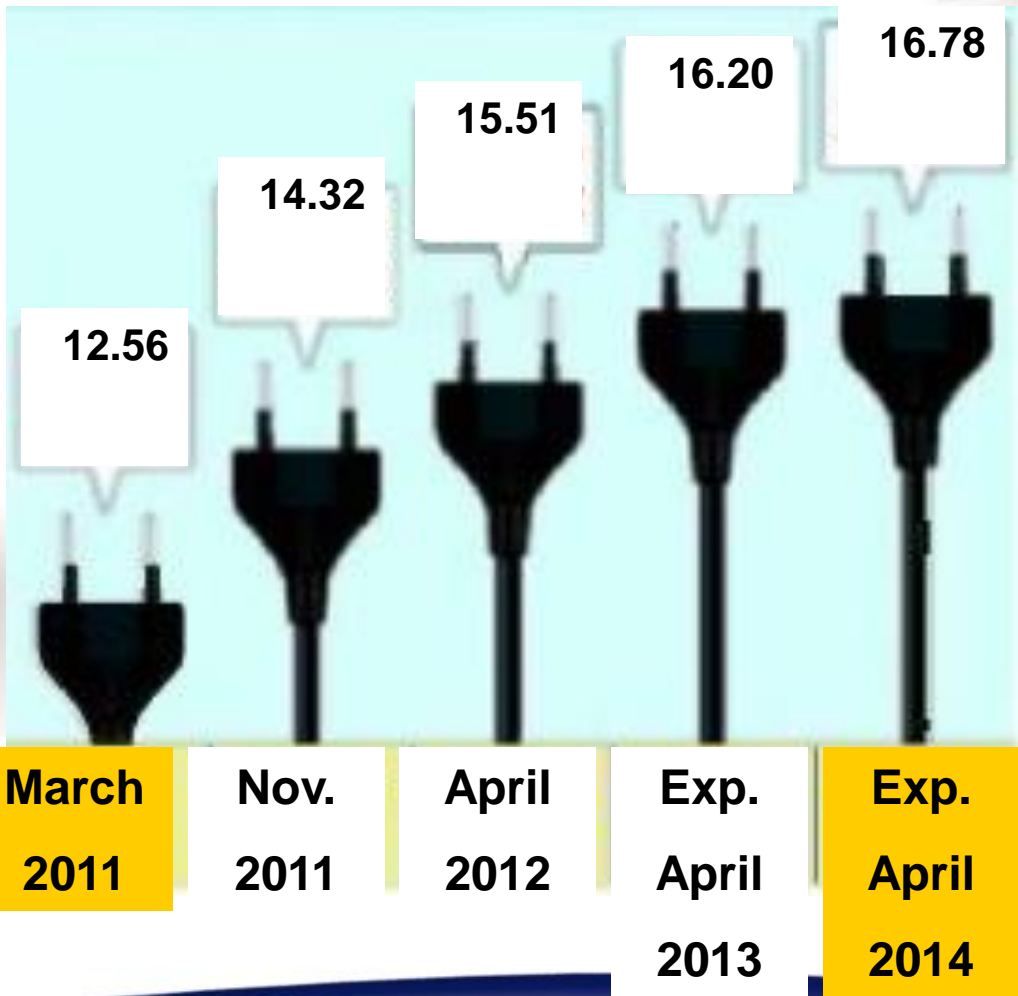
Ethics Commissioner



Infrastructure Theft

Israel - KWH Price Hike

(US cents)





Electricity Theft Rate Expected To Leap



Combating Electricity Theft



400
million
ZAR



100
million
ZAR

Combating Electricity Theft



- Electricity theft is a criminal offense and is punishable by up to five years in prison.
- Filing a police complaint – not an easy procedure.
- Complaint rejected for lack of public interest, or for lack of evidence.
- Focus on just a few severe types of theft of electricity.
- Complaints are reopend following our appeals.



Israel Electric Security Unit



- Protecting power plants, substations, power lines, office buildings and employees who work in dangerous areas.
- Excellent work relationships with regional police stations, assisting Revenue Protection investigators whenever necessary.
- Employing ex Israeli Police officers.
- Conducting sting operations in coordination with the Israel Police and Revenue Protection investigators.



Israel Electric Security Unit Combating Infrastructure Theft



- Involved with prevention efforts of electricity infrastructure theft, mainly copper cables and transformers copper cores.
- Damages caused to the Israel Electric infrastructure by copper theft - 50 million Rands annually.
- Operating a volunteer patrol force.
- Capturing and framing gangs specializing in copper & metal thefts.



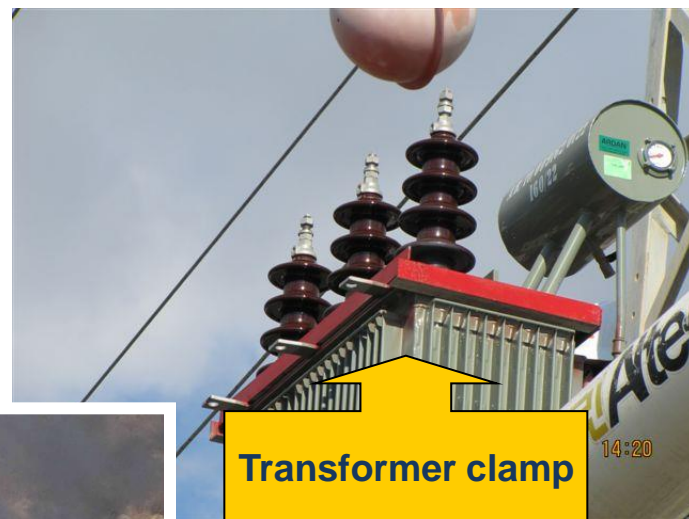
Israel Electric Security Unit Combatting Infrastructure Theft



- Gathering intelligence intended for arresting metal thieves on the scene of the crime, and raid metal dealer's depots.
- Installing special equipment on the electricity poles.



Breaker protector



Transformer clamp

Copper
cable
protector



Burning the
copper sleeves

IEC Investigations & Intelligence Unit



- 4 investigators
- Familiar with police routine and bureacracy.
- Trained to interrogate & investigate.
- Experienced with recruiting and activating agents and collaborators.



Conducting Operations With Law Enforcement & Government Agencies



- 2011 - Police Coordinated Enforcement Force established.
- Combating vast invasions into state owned land and illegal construction of buildings.
- Crime families targeted.



Conducting Operations With Law Enforcement & Government Agencies

- Partnering with : Tax authorities, Ministry of Interior, Ministry of Health, State Land Administration, Electric Company, Water Authority, the State Attorney, and more.
- Police special intervention forces presence, calming the raid compounds.
- 10 successful operations since January 2013.



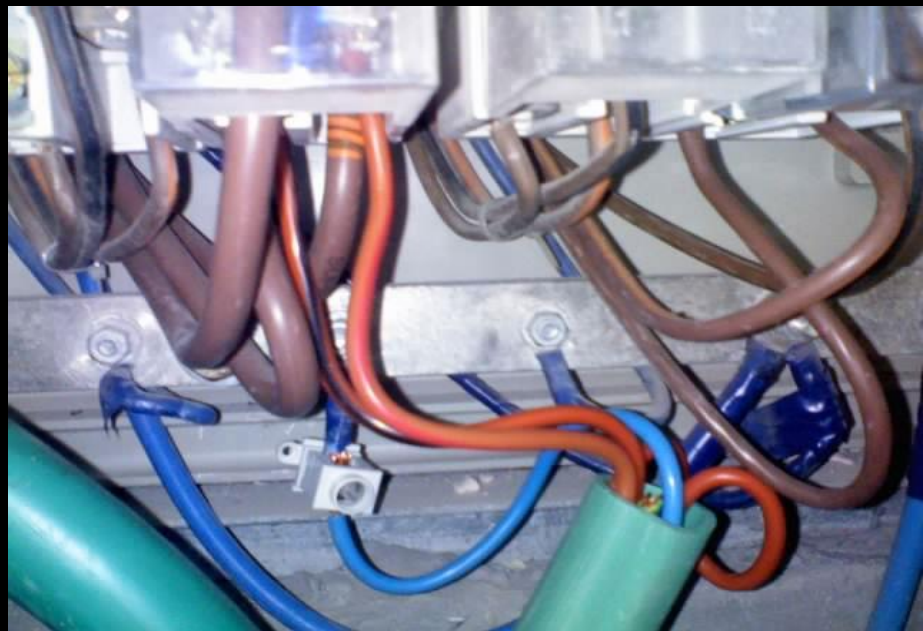
Exposing Cannabis

Grow houses

- Israel's borders are almost hermetically closed, to illegal immigration, smuggling of people, drugs and arms.
- Illegal **cannabis growing**, turned to be extremely profitable for the offenders.
- The grow houses are usually concealed in private homes or industrial buildings.
- Electricity is the most vital component in the operation of the grow house.
- The easiest way to hide the high electricity consumption, is by tampering or bypassing the meter.



Exposing Cannabis Grow houses



Summary



- combining forces and concentrating efforts where the IEC suffers huge financial losses.
- Targeting electricity infrastructure theft, and theft of electricity.
- Need to justify much needed expansion of resources.
- Protecting the company's infrastructure and revenues is crucial at this time, and always.





**THANKS FOR YOUR
ATTENTION**



**Itzick Michaeli
ISRAEL ELECTRIC**



michaeli@iec.co.il

Questions ?

