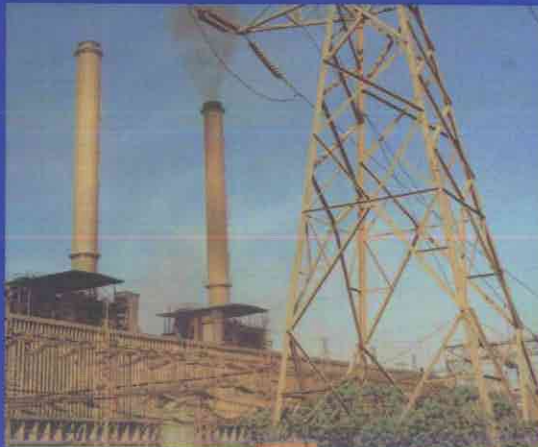




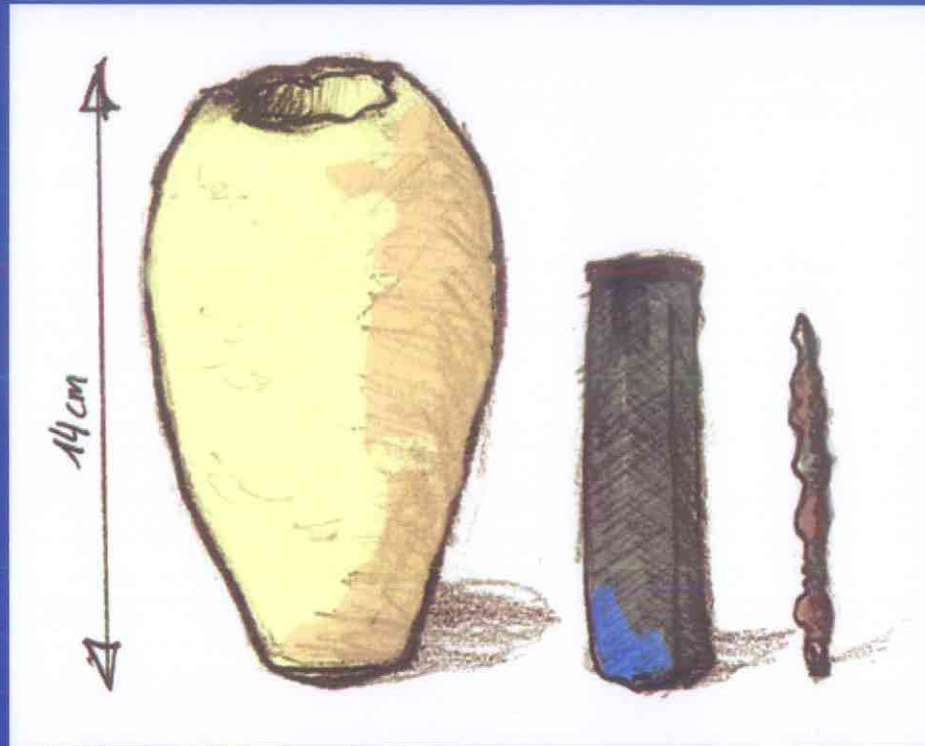
CONQUERING DISASTER: IRAQ'S ELECTRICITY STORY

Honorable Karim W. Hasan, Ph.D.
Minister of Electricity – Republic of Iraq

POWER-GEN 2007
New Orleans, LA – December 11-13, 2007



THE BAGHDAD BATTERY: THE BEGINNING OF THE STORY



THE PLAN

RECOVERY

RENEWAL

RESTRUCTURING

THE NEEDS

MATERIAL

MANPOWER

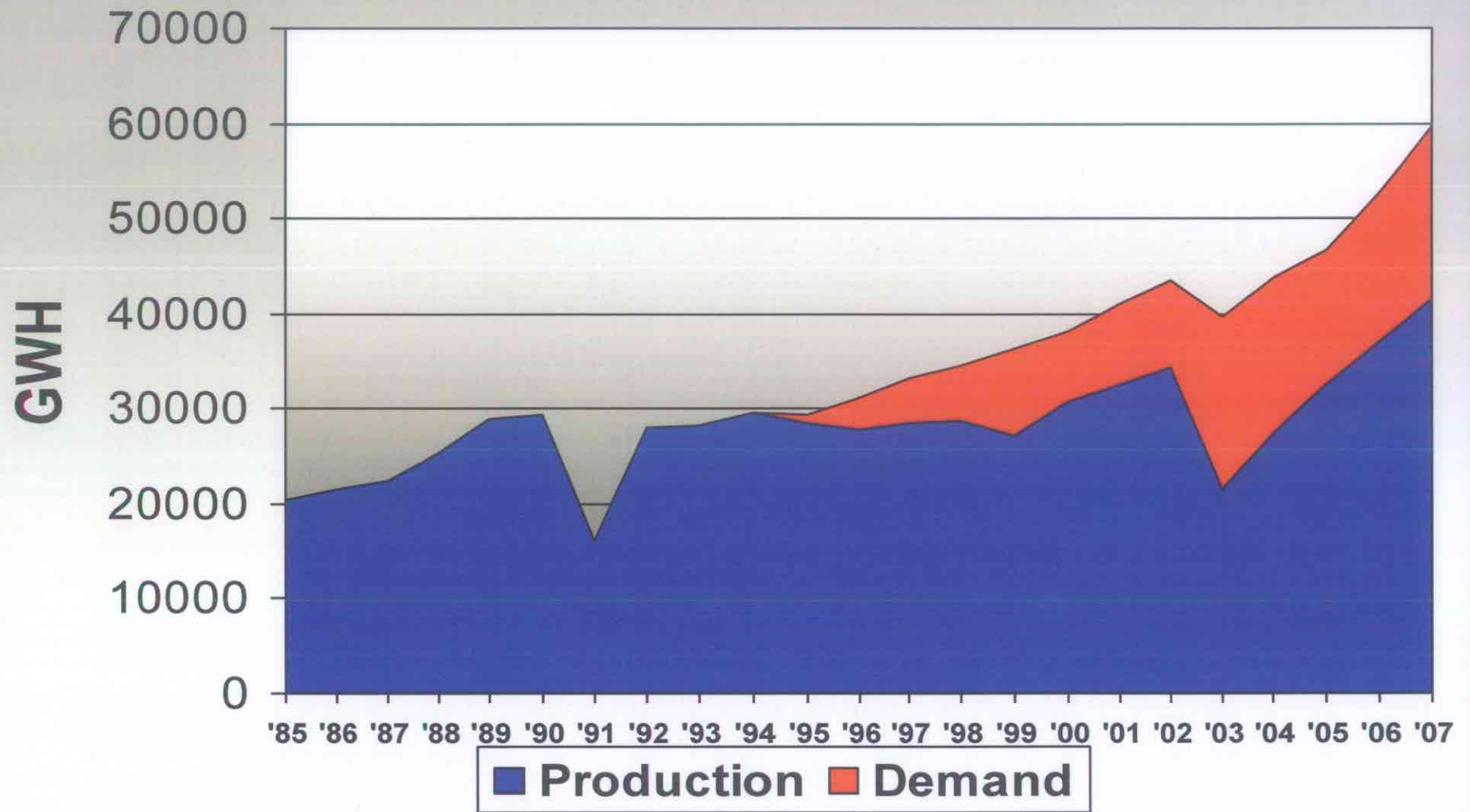
MONEY

THREE DECADES OF TURMOIL

Mideast's Best Network Was Lost:

- 1980-1988: IRAN – IRAQ WAR
- 1991: GULF WAR
- 1991-2003: U.N. SANCTIONS
- 2003: REGIME CHANGE
- 2003-2007: INSURGENCY

Electricity Production & Demand Iraq 1985-2007

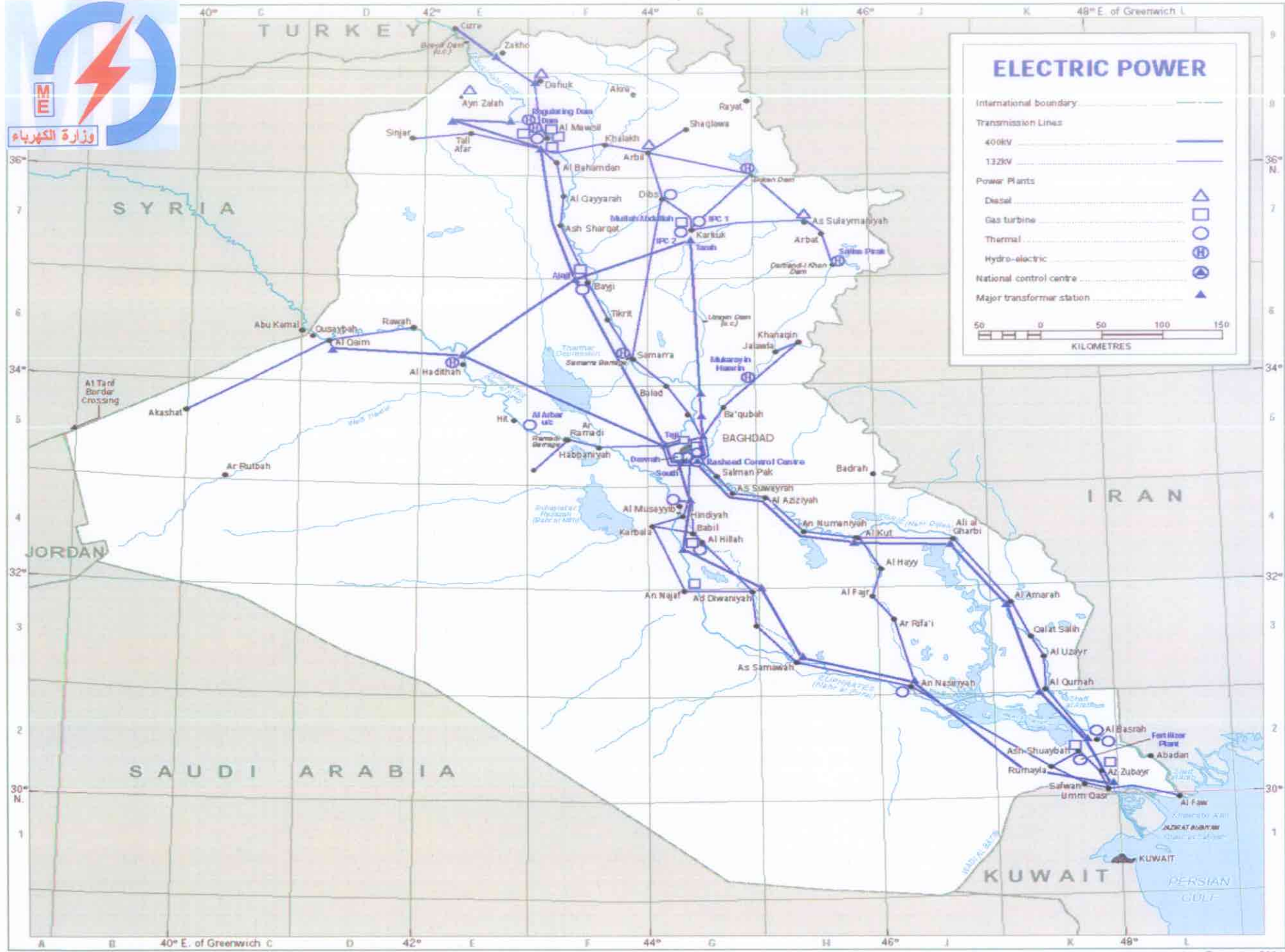


INVESTMENT & TRAINING ARE PAYING OFF

- 4,000 MW of Generation Added
- Maintenance & Training = MWHs
- More Plants Operating within Parameters
- Improved Security Permits Repair of Transmission Lines

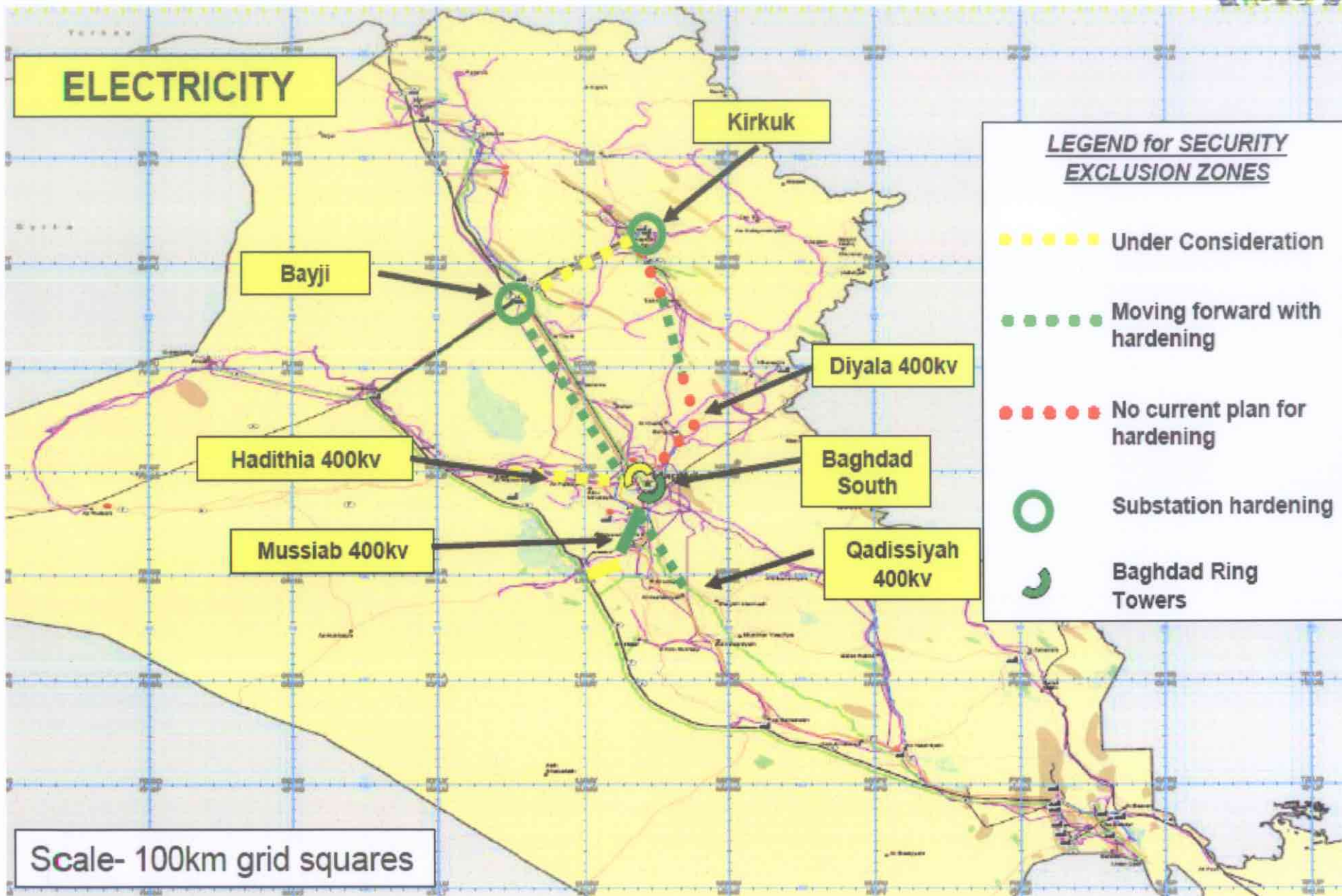


وزارة الكهرباء

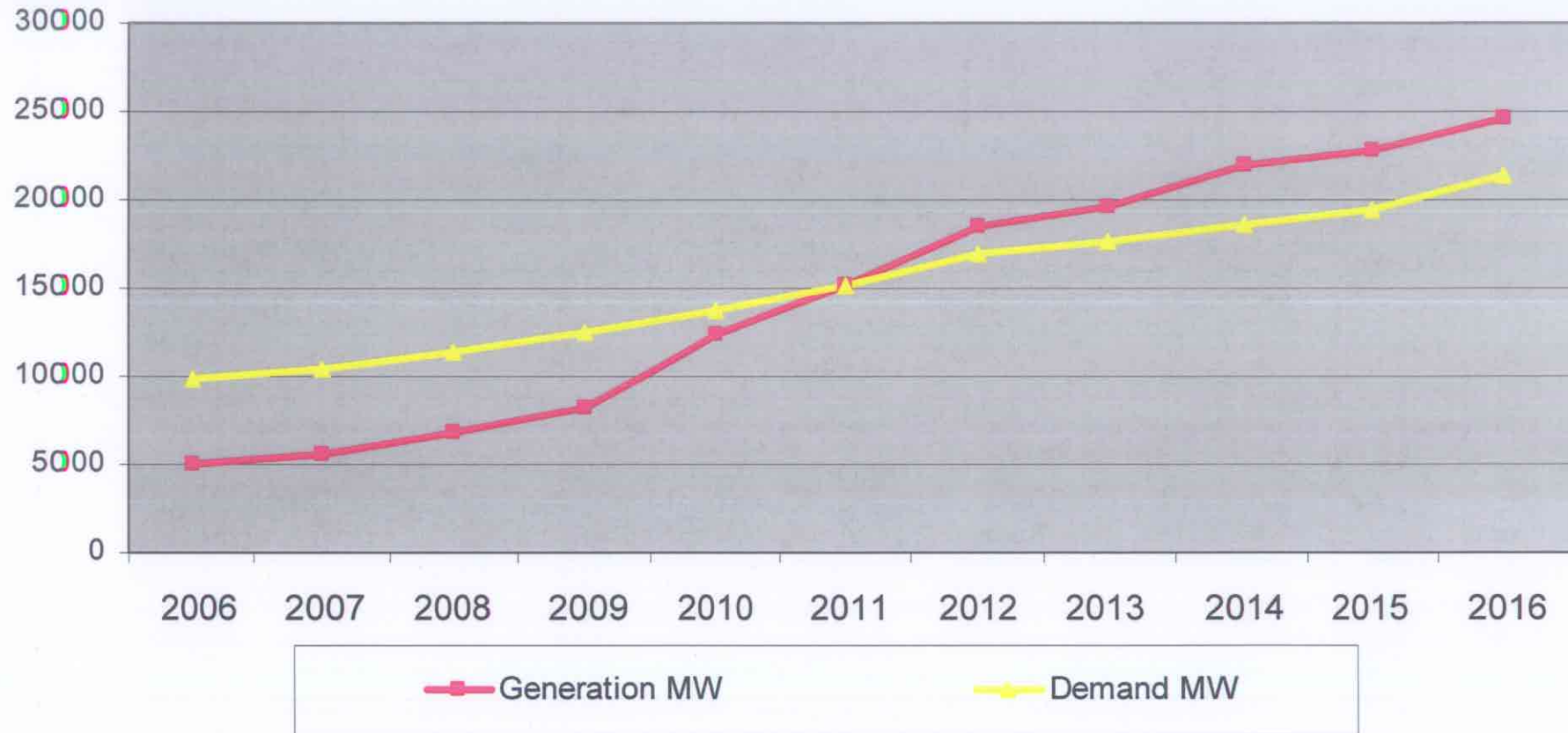


ISP: INFRASTRUCTURE SECURITY PROTECTION

- Tigris-Euphrates Axis Highly Vulnerable
- Baghdad Load Center is Generation Short
- \$277 Million ISP Program Underway
 - Pipeline & 400kV Exclusion Zones
 - Hardening & Intrusion Detection
 - Integrity: Biometrics & Redundancy
 - Well-trained & vetted security personnel



FILLING THE GAP



POWERING

THE

NATION

RENEWAL

- Harden Transmission System
- Achieve International Standards
- Integrate Planning with the Oil Sector
- Capture All Methane Gas Currently Flared
- Enact a Modern Law & Regulatory System
- Begin Attracting Foreign Investment

\$24 BILLION TO DEVELOP THE ELECTRIC SECTOR 2008-2016

	<u>Activity</u>	<u>Total (Millions)</u>
<p>Thermal Power Plant</p> 	New Steam Generation & Gas Generation Stations	\$15,540
	Rehabilitation of Existing Generation Stations	\$1,325
	New Transmission & Distribution Networks	\$7,530
	Rehabilitation of Existing Transmission & Distribution Networks	\$535

New Generation 2260 MW

Generation 2009

Rehabilitated 960 MW

Dibis Gas St.: 320 MW

Samara Diesel St.: 170 MW

Sth. Baghdad Gas St.: 175 MW

N. Baghdad & Hurrya Diesel St.:
55 MW

Al Qudus Gas St.: 250 MW

Al Sadir Gas St.: 250 MW

Haditha Gas St.: 115 MW

Yousifya Steam St.: 420 MW

Dywana Gas St.: 250 MW

Bazirgan Gas St.: 80 MW

Najaf Gas St.: 123 MW

Samwa Gas St.: 60 MW

Mousil Gas St.: 20 MW

Old Mulla Gas St.: 40 MW

Baji Steam St.: 250 MW

Doura Steam St.: 120 MW

Sth. Baghdad Steam St.: 45 MW

Doura Gas St.: 20 MW

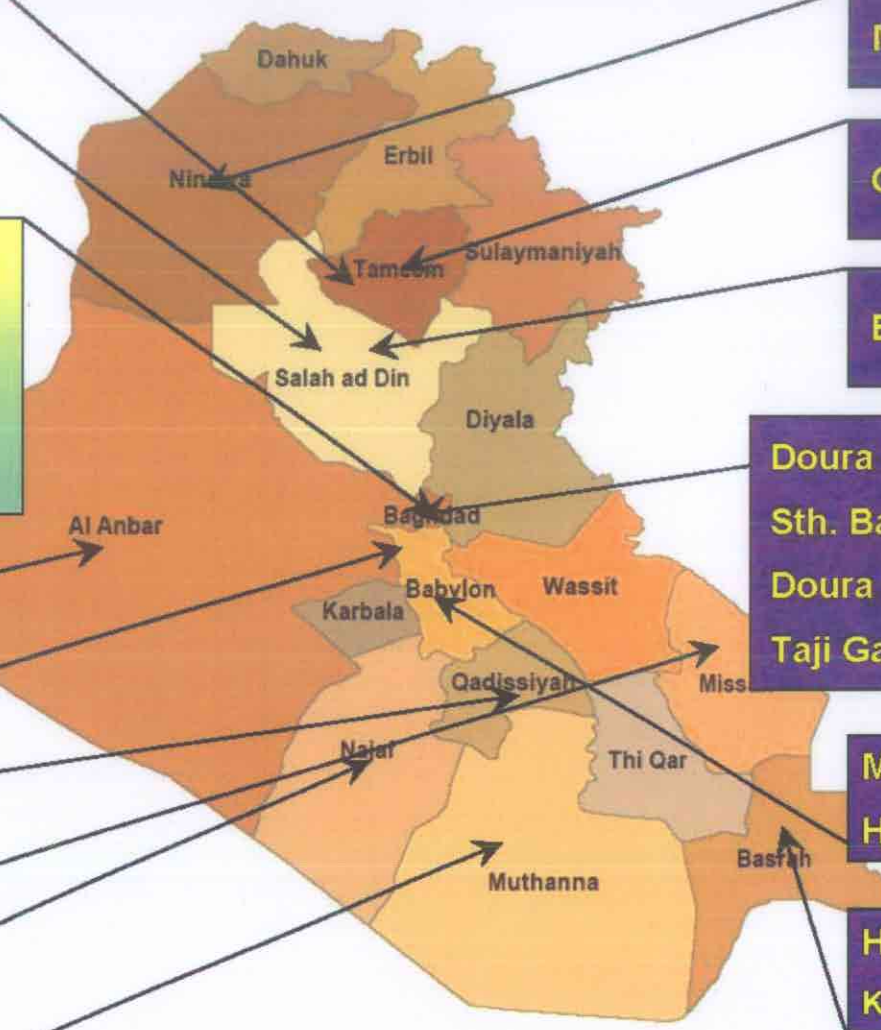
Taji Gas St.: 15 MW

Mussaib Steam St.: 100 MW

Hilla Gas St.: 10 MW

Hartha Steam St.: 300 MW

Khour Azubair Gas St.: 40 MW



Total installed capacity: 14408 MW

▶ **STOP FLARING GAS**

▶ **START GENERATING ELECTRICITY**



GAS & OIL POTENTIAL



- Areas of Interest**
- Existing Fields**
- Rumaila N&S (all reservoirs)
 - West Qurna
- New Developments**
- Ratawi
 - Luhais Group
 - Nasiriyah Group
- Exploration**
- Deep Rumaila
 - NW Oil
 - Northern Gas
 - Western Gas
 - SW Jurassic Play

RESTRUCTURING

- Make Iraq a Regional Transmission Hub
- Meet Global Environmental Standards
- Achieve Rational Pricing for All Energy
- Professionalize Electricity as a Business
- Take Advantage of Potential for Solar

POWERING THEIR FUTURE

