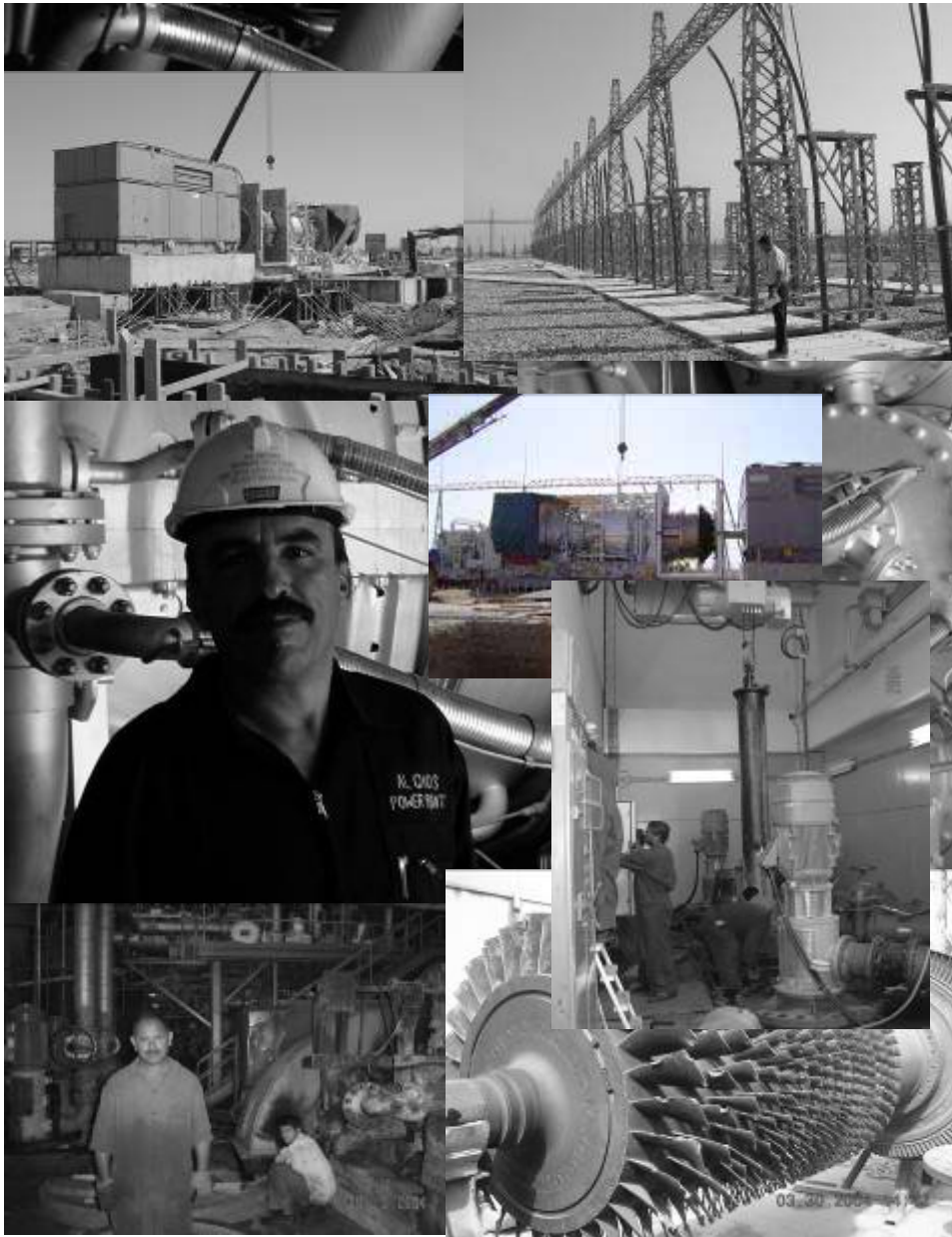


RE-POWERING IRAQ

**SAME Joint Engineer
Education and Training
Conference & Expo 2006**

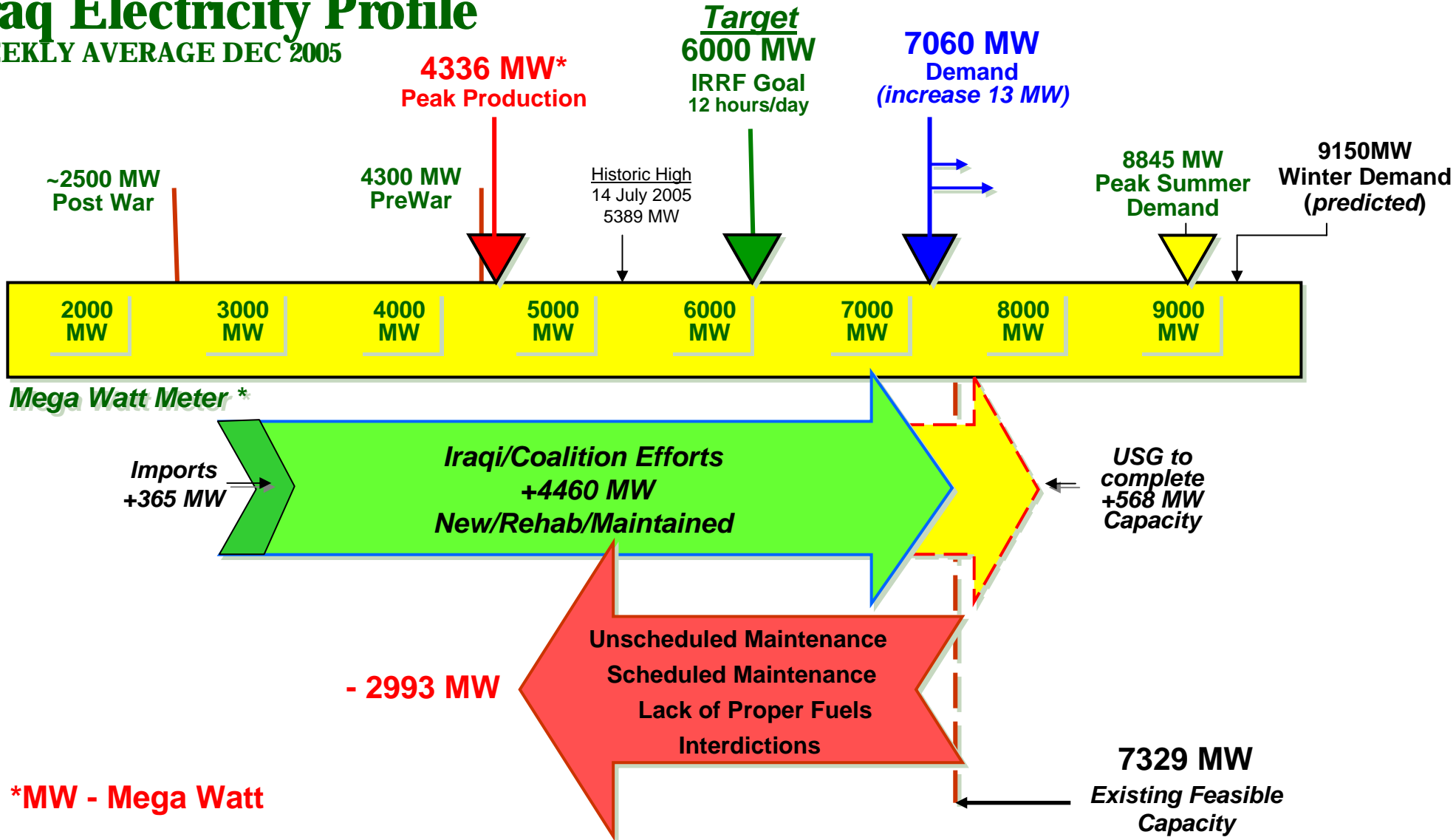
**COL David Bender
Program Manager
Electric Sector
Project and Contracting Office
March 2005 – March 2006**



EXPECTATIONS! INCREASING DEMAND!

Iraq Electricity Profile

WEEKLY AVERAGE DEC 2005



*MW - Mega Watt



INTERDICTIONS

Thar Canal, near Samarra: The Baiji-Baghdad West corridor has suffered repeated attacks on transmission infrastructure since 2003.

MAINTENANCE

Doura: Sustainment is required to prevent further degradation of electricity sector assets.



FUELS INFRASTRUCTURE

Baiji: Inadequate loading/unloading facilities, contribute to insufficient fuel supplies and losses in efficiency.



FUELS INFRASTRUCTURE

Quds: Gas is flared at Baghdad East Field as diesel trucks deliver costly diesel fuel across the street to Quds Power Plant.

LESSONS LEARNED

- Politics, Priorities, (and Protection) are local
- Know the customer
 - Ground Commander vs Higher HQs
 - Iraqi Government (National vs Local)
- Define National versus Regional versus Local projects
- Balance in Planning, Execution, and Time for \$4.3B Program
 - US GOVT
 - Planners
 - Program/Project Managers
 - Contracting Personnel
 - Funding Authority
 - IRAQI Ministries
 - Worldwide Resources



Doura Thermal Power Plant, Baghdad

LESSONS LEARNED

- Realize there are multiple contracting vehicles available
- Build the pool of local contractors
- Logistics – Before, During, After
 - Maintenance – *Services, Parts, and Consumables*
 - Fuel – *The Right Stuff*
 - Train – *All Levels*
 - Security
- It's the RED ARROW!
(STUPID)



Iraqi Engineers rebuild a GE Frame 5 (22MW) Gas Turbine near Basra.

...Rebuilding for their future

