

SIGIR OVERSIGHT REPORTS ON U.S. ELECTRICITY-RELATED PROGRAMS AND PROJECTS

REPORT NUMBER AND SUBJECT	DATE	RESULTS	VALUE (\$ MILLIONS)	LOCATION
Audit 05-024: Mansuria Electrical Reconstruction Project	1/2006	Project cancelled due to competing needs, but turbines provided to other facilities.	62.70	Baghdad
PA-05-029: Restore Qudas Gas Turbine Units	1/2006	Restoration of turbines hampered by lack of Iraqi fuel, spare parts, and maintenance.	11.40	Baghdad
PA-05-005: Al-Hakamia Substation	3/2006	No construction deficiencies, but inoperable until transmission and distribution lines connected.	5.90	Basrah
PA-05-006: Hamdan Substation	3/2006	No construction deficiencies, but inoperable until transmission and distribution lines connected.	5.00	Basrah
PA-05-007: Al-Kaffat Substation	3/2006	No construction deficiencies, but inoperable until transmission and distribution lines connected.	5.90	Basrah
PA-05-008: Al-Seraji Substation	3/2006	No construction deficiencies, but inoperable until transmission and distribution lines connected.	5.70	Basrah
PA-05-009: Shatt Al-Arab Substation	3/2006	No construction deficiencies; inoperable until transmission and distribution lines connected.	5.30	Basrah
PA-06-037: Erbil City Transformers	4/2006	Construction in progress; no deficiencies observed.	3.40	Erbil
PA-06-073: Bab Eshtar Substation 11-kV Feeder Cable	10/2006	Construction in progress; no deficiencies observed.	1.20	Ninewa
PA-06-082 to 086: Basrah Electrical Substation Sustainment	1/2007	All substations operational; incoming transmission and outgoing distribution lines connected.	28.30	Basrah
Audit 06-039: USAID/Bechtel Property Management Controls	1/2007	Sufficient property disposition controls in place.	2,270.00	Not Specified
PA-07-097: Baghdad International Airport Power System	4/2007	Lack of Iraqi maintenance or use; 10 of 17 generators provided inoperable.	11.80	Baghdad
PA-07-103: Doura Power Station	7/2007	Rehabilitation in progress for two turbine generators damaged by poor Iraqi operation.	172.10	Baghdad
Audit 07-009: Bechtel's Phase II Contract	7/2007	Much accomplished; success of individual projects mixed.	1,330.00	Nationwide
PA-07-101 & 104: Qudas Power Plant	10/2007	Turbine generators restored; expansion of capacity underway.	238.00	Baghdad
PA-07-105: Mosul Dam	10/2007	Lacked required design drawings; inadequate construction; adequate quality management program and quality-control plan not in place; indications of possible fraud referred to SIGIR Investigations.	27.00	Ninewa
Audit 08-011: Electricity-sector Reconstruction Contract with Perini Corp.	4/2008	Original plans descoped because of high costs; remaining work done well.	123.00	Southern Iraq
PA-08-127: Nassiriya 33-kV Power Line	7/2008	Construction in progress; design incomplete; no deficiencies observed.	1.50	Thi-Qar
PA-08-153: Ramadi 132-kV Substation	1/2009	Construction in progress; design incomplete; no deficiencies observed.	28.70	Anbar
Audit 09-025: Commander's Emergency Response Program—Muhalla 312 Electrical Distribution Project	7/2009	Successful electrical distribution CERP project in Sadr City.	11.80	Baghdad
Audit 10-007: Contracts with Wamar International	1/2010	Successful inspection and repair of 6 turbine generators though costs increased.	60.40	Baghdad
PA-09-191: Al-Qaim 33/11-kV Electrical Mobile Substation	4/2010	Units appeared operational; Anbar governor refused to allow use.	6.50	Anbar



Generators at Baghdad International Airport



Al-Qaim mobile substations



Mosul Dam



Doura power plant



Ramadi substation



Qudas power plant



Al-Seraji substation

SIGIR Audits

This quarter, SIGIR issued five audits and one nonaudit product. In one report, SIGIR reviewed the DoD's management of the \$7.3 billion (to date) police training program, finding that despite having trained more than 400,000 Iraqi police, the capabilities of these forces are unknown because no assessments of their abilities were made. The police training audit also found weaknesses in DoD's planning, communications, and coordination among organizations actually performing the training, and in oversight of contractors. SIGIR recommends that DoD work with DoS and the Ministry of Interior to assess the capabilities of the Iraqi police and provide the results of this review to INL. The audit's findings should also inform ongoing police training efforts in Afghanistan. The core lessons of program planning, oversight, and assessment remain applicable beyond the bounds of the Iraq mission.

SIGIR's other audits reviewed:

- **DoS management of a \$50 million grant to the National Democratic Institute (NDI) for democracy-building activities in Iraq.** SIGIR found that security costs charged to the grant were generally reasonable. However, SIGIR also concluded that NDI does not have a systematic approach with clearly defined metrics to measure the impact of all of its work in meeting grant goals and objectives.
- **DoD management and oversight of seized Iraqi funds.** SIGIR determined that although the Department of the Army created controls and monthly reports to account for these funds, it had no plans or procedures in place to guide disposition of the remaining \$47.4 million.
- **DoD's efforts to train and equip the Iraqi Special Operations Force (ISOF).** SIGIR found that the U.S. Special Operations Forces used established processes in training and equipping more than 4,100 ISOF soldiers. At least \$237 million from the Iraq Security Forces Fund was used to equip and sustain the ISOF. An unknown amount from the Iraq Relief and Reconstruction Fund was used for procuring new equipment to support the entire ISF.
- **SIGIR's forensic audit initiative.** In the course of this quarter's forensic-audit activities, SIGIR identified 54 potential duplicative payments made by DoS, totaling approximately \$18 million, and opened four new criminal investigations.

Since 2004, SIGIR has published 177 audit reports with 16 more projects ongoing.

SIGIR Investigations

To date, SIGIR's investigative work has resulted in 50 indictments, 41 convictions, 31 arrests, and more than \$71.2 million in court-ordered fines, forfeitures, and other monetary penalties. This quarter's investigative activities included:

- A U.S. Embassy official in Iraq was charged with theft of public funds.
- A U.S. Army captain was sentenced to 15 months in prison for receiving kickbacks for awarding contracts in Iraq.
- A U.S. Marine Corps major pled guilty to illegally depositing more than \$440,000 in U.S. bank accounts.
- A former senior employee with a U.S. military contractor was charged and pled guilty to a bribery scheme and agreed to forfeit \$360,000 to the U.S. government.
- A former employee of a U.S.-based construction company pled guilty to an Iraq reconstruction kickback conspiracy involving more than \$800,000.

On October 19, 2010, the Council of the Inspectors General on Integrity and Efficiency (CIGIE) recognized SIGIR's Investigations Directorate for the second consecutive year, presenting it with CIGIE's *Award for Excellence*.

SIGIR Evaluations

This quarter, SIGIR published its first evaluation report, assessing the impact of two U.S.-funded water projects on the U.S. strategic goals in Iraq. The two projects—one in Erbil in the Kurdistan Region and the other in the southern, predominantly Shia province of Thi-Qar—were funded by the Coalition Provisional Authority. Together costing nearly half a billion dollars, these water treatment plants (WTPs) were two of the largest U.S.-funded reconstruction projects in Iraq. Based on data from recent focus groups and polls of the local populations, Thi-Qar residents hold an overwhelmingly negative view of the Nassiriya WTP project, the GOI, and the U.S. government. In contrast, most Erbil residents hold a positive view of the Ifraz WTP project, the KRG, and the U.S. government.

Regarding U.S. relief and reconstruction plans, programs, and operations in Iraq, the Special Inspector General for Iraq Reconstruction provides independent and objective:

- oversight and review through comprehensive audits, inspections, and investigations
- advice and recommendations on policies to promote economy, efficiency, and effectiveness
- prevention, detection, and deterrence of fraud, waste, and abuse
- information and analysis to the Congress, the Secretary of State, the Secretary of Defense, and the American people

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SIGIR QUARTERLY REPORT

OCT 2010

SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

MANAGEMENT OF U.S. RECONSTRUCTION TRANSITION

Under the terms of the current U.S.-Iraq Security Agreement, all U.S. military forces are scheduled to depart Iraq by December 31, 2011. This quarter, continued withdrawal of U.S. troops proceeded apace, with the last U.S. combat brigade rolling out in August, signaling the end of Operation Iraqi Freedom and the beginning of Operation New Dawn. Concurrent with U.S. military reductions, the Department of State (DoS) is continuing to expand its presence. Over the next year, DoS will open several key hubs across Iraq and will assume responsibility from the Department of Defense (DoD) for police training. Overseeing these changes are General Lloyd Austin, who took command of U.S. Forces-Iraq (USF-I) this quarter, and the new U.S. Ambassador to Iraq, James Jeffrey.

Transforming the DoS Mission

By September 2011, the 15 DoS-led Provincial Reconstruction Teams (PRTs) and one Regional Reconstruction Team currently operating in Iraq will disband. These closures, along with the departure of more U.S. troops and some 80,000 associated DoD contractors, will result in a much-reduced U.S. presence. Under current plans, PRTs will be replaced by consulates in Basrah and Erbil and by Embassy Branch Offices in Mosul and Kirkuk. Staffing these posts will require an 80% increase in the number of U.S. civilian personnel under the authority of the Chief of Mission—from about 7,500 to more than 13,500 by January 1, 2012. To support the expanded civilian footprint,



August 16, 2010: Stryker vehicles depart as part of the 4th Brigade Combat Team, 2nd Infantry Division's exit from Iraq. (USF-I photo)

DoD will allow DoS to use its LOGCAP and Defense Logistics Agency contracting mechanisms for food, fuel, transportation, and other life-support needs.

Supporting the Iraqi Security Forces

In October 2011, DoS's Bureau of International Narcotics and Law Enforcement Affairs (INL) is scheduled to take over advising Iraq's police from USF-I. INL's new training program will focus on management techniques and advanced police skills to strengthen the more than 400,000 Iraqi police currently responsible for internal security.

DoD and DoS are also preparing to open an Office of Security Cooperation Agency to manage military assistance to the Iraqi Security Forces (ISF), including administering Foreign Military Sales cases.

Government-formation Negotiations Remain Stalled

More than seven months have passed since Iraq conducted parliamentary elections, and the major blocs remain unable to agree on the composition of a new government. This quarter, Prime Minister Nouri al-Maliki appeared to make progress toward winning the support of the 163 (out of 325) members of the Council of Representatives necessary to secure a second term. Shia cleric Muqtada al-Sadr (whose supporters control 39 seats) announced in early October that he was dropping his long-held opposition to another term for al-Maliki, who won 89 seats. However, the incumbent Prime Minister still needs additional allies to form a government and, as of mid-October, both he and his main rival and winner of the largest number of seats, former Prime Minister Ayad Allawi, have been unable to garner the needed votes.

When seated, the new government will face a series of challenges, including:

- combating the remnants of the insurgency and foreign terrorism
- mediating Arab-Kurd tensions, especially concerning the contested city of Kirkuk
- integrating former Sunni insurgents into the government
- conducting Iraq's first true national census in a generation
- increasing the electricity supply to keep up with skyrocketing demand
- rebuilding the dilapidated oil infrastructure
- fostering an investment environment that is attractive to foreign firms
- completing and sustaining U.S.-funded reconstruction projects
- mitigating public corruption



THE ELECTRICITY STORY

OCTOBER 2010
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How Much the United States Spent on Selected Iraqi Power Plants and How Much Electricity They Produce

TYPE	NAME	ESTIMATED U.S. AND IRAQI (DFI) FUNDING (\$ MILLIONS)				AVG PRODUCTION (MW)		
		IRRF	ESF	CERP	DFI	2004 (JAN-MARCH)	2010 (JULY-SEPT)	
Combustion Turbine	Qudas	238.7	41.9	140.0	420.6	146	455	
	Kirkuk	237.5	6.4	2.7	246.6	0	84	
	Baghdad South Gas (Old and New)	221.9	10.2		232.1	0	251	
	Al-Zubair	132.6		38.6	171.2	110	292	
	Baiji Gas	139.0	6.3	10.0	155.3	107	214	
	Baiji Mobile	2.9	8.3	131.0	142.1	0	12	
	Nassiriya Gas	22.6		70.5	93.1	0	23	
	Burzurgan	4.0		70.4	74.4	0	33	
	Al-Musayab Gas	30.4	0.5		30.9	0	55	
	Mullah Abdullah (Old)	29.9		29.9	59.8	95	89	
	Mosul Gas	24.0		0.6	24.5	125	130	
	Sulaymaniyah	4.1			4.1	0	360	
	Najaf Gas New				0.0	95	156	
Erbil				0.0	0	308		
Thermal	Doura	122.6	2.7	0.8	126.2	64	343	
	Hartha	30.4		2.6	33.0	132	165	
	Baiji	23.2			23.2	243	309	
	Nassiriya	10.0			10.0	472	266	
	Al-Musayab	7.6			7.6	502	687	
Hydroelectric	Mosul Dam	36.8	8.6	0.2	45.6	626	254	
	Haditha Dam	11.4		0.6	12.1	99	104	
	Dokan Dam				0.0	NA	141	
	Darbandikhan Dam				0.0	NA	117	
	Diesel	Samarra				0.0	0	140

- Combustion Turbine Power Plant
- Thermal Power Plant
- Hydroelectric Power Plant
- Diesel Power Plant
- Transmission Line
- SIGIR Audit or Inspection



Al-Musayab thermal power plant

Electric Power in Iraq Before 2003

Electric power first came to Iraq in 1917, when it was used to run machines and provide limited street lighting, but large power plants were not built until the 1970s and 1980s. Those plants—including Doura, Baiji, and al-Musayab—were mostly oil-fired thermal plants. By 1990, Iraq had one of the leading electric utilities in the Middle East. Total nameplate generating capacity was 9,295 MW, almost twice peak demand, and about 9 out of 10 Iraqis had access to subsidized electricity.

Damage from the 1991 Gulf War reduced available capacity to 2,325 MW, resulting in widespread power shortages and a halving of per capita consumption. The ensuing UN sanctions caused construction of three large new plants to halt. At the same time, they made it difficult for Iraqis to obtain electric appliances and machinery, which suppressed the growth of demand.

By 2002, Iraqi engineers were able to repair some of the existing plants and increase capacity to about 4,500 MW. However, the entire electricity infrastructure still suffered from the effects of war, lack of spare parts, and inadequate maintenance. And the people outside of Baghdad endured a system that allocated about 40% of the country's available power to the capital.



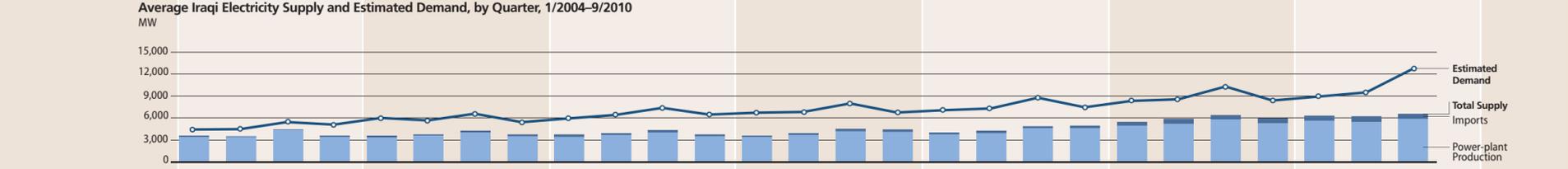
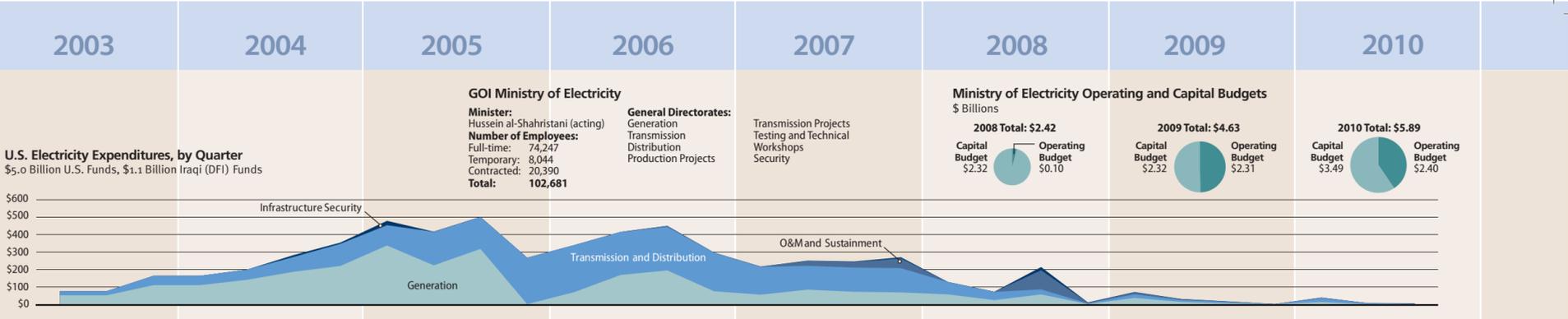
Damaged transmission tower, 2003

Electricity Supply in Selected Countries, per 100,000 People



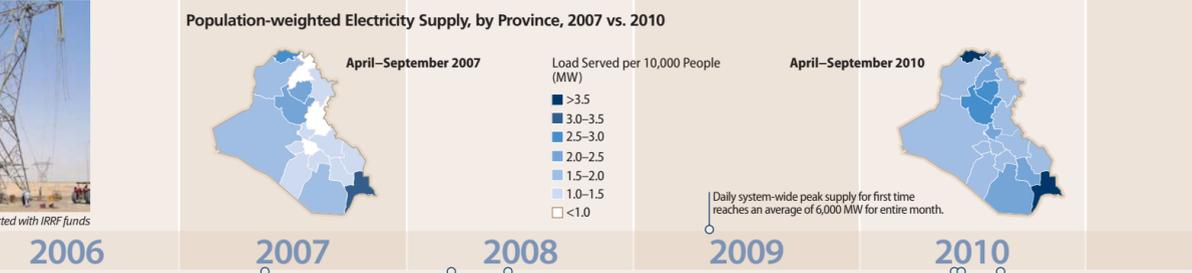
Top Electricity Contractors

CONTRACTOR NAME	TOTAL COSTS	% OF TOTAL
Bechtel National, Inc.	1,149.09	22%
Washington Group International	458.46	9%
Fluor/AMEC, LLC	391.10	8%
Siemens	230.32	4%
IAP Worldwide Services	210.65	4%
Uruk/Baghdad JV	175.78	3%
Civilian Technologies Limited	134.04	3%
Perini Corporation	131.72	3%
Wamar International, Inc.	121.93	2%
Secure Global Engineering, LLC	115.02	2%



Significant Events in the Electricity Sector

- 2003: Saboteurs and vandals damage power systems, causing frequent blackouts.
- 2003: USAID awards IRRF Phase I contract to Bechtel for reconstruction of vital infrastructure.
- 2003: Coalition forces start bombing Iraq.
- 2003: Ambassador Bremer says the Coalition will raise Iraq's average daily electricity supply to 4,400 MW by October 2003.
- 2004: Congress allocates \$5.56 billion (later reduced to \$4.32 billion) under IRRF 2 to rebuild electricity infrastructure.
- 2004: USAID awards \$1.8 billion (later reduced to \$1.2 billion) IRRF Phase II contract to Bechtel.
- 2004: Bremer sets goal of achieving peak electricity supply of 6,000 MW by summer 2004.
- 2004: USACE forms Task Force Restore Iraqi Electricity to help meet 6,000 MW goal.
- 2004: DoD awards IRRF 2 electricity program management contract to Parsons Joint Venture and design-build construction contracts to Perini, Washington Group, and Fluor/AMEC.
- 2005: Iraq starts importing electricity from Iran.
- 2005: New combustion turbine transported to Kirkuk.



Appliance store in Baghdad

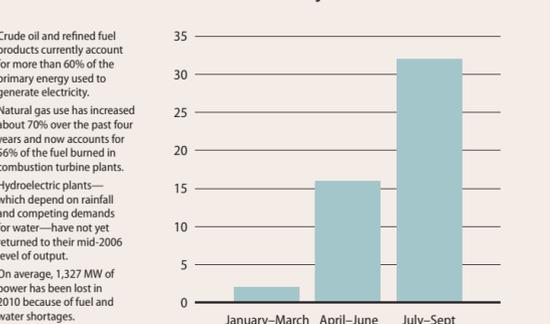
Factors behind Rising Demand

- Increased availability and use of electrical appliances
- Construction of new buildings and infrastructure
- Economic growth
- Below-cost pricing and inadequate billing systems

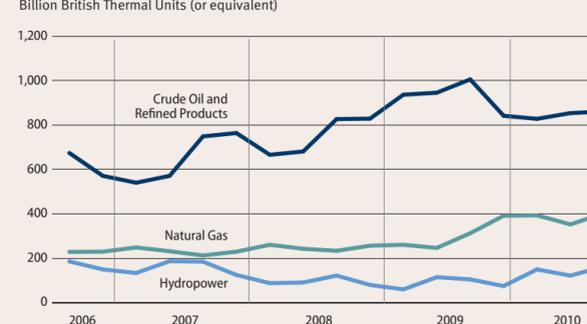


Demonstrators in Basrah, June 2010 (AP photo)

Attacks on Electricity Infrastructure in 2010



Fuel Use in Iraq's Power Plants, by Quarter, 2006-2010



- Crude oil and refined fuel products currently account for more than 60% of the primary energy used to generate electricity.
- Natural gas use has increased about 70% over the past four years and now accounts for 55% of the fuel burned in combustion turbine plants.
- Hydroelectric plants—which depend on rainfall and competing demands for water—have not yet returned to their mid-2006 level of output.
- On average, 1,327 MW of power has been lost in 2010 because of fuel and water shortages.