### Country Report

**IRAQ** 

#### **Current Iraqi Energy Policy**

- Iraq is located in west of Asia and its 450000 square kilometers surface, 30 million population, Iraq was the world's 13th largest oil producer in 2008, and has the world's third largest proven petroleum reserves after Saudi Arabia and Canada. Just a fraction of Iraq's known fields are in development, and Iraq may be one of the few places left where vast reserves, proven and unknown, have barely been exploited.
- Iraq's energy sector is heavily based upon oil, with approximately 94 percent of its energy needs met with petroleum.



Iraq's oil sector has suffered over the past several decades from sanctions, and its oil infrastructure is in need of modernization and investment.

2009 Iraqi budget allocated \$3.2 billion to the Ministry of Oil, a 50% increase from the 2008 base budget, to continue this work.

The economy of Iraq is petroleum-based; roughly 95% of budget revenues and 98% of export earnings come from the oil industry.

Iraq's proven natural gas reserves are 112 trillion cubic feet (Tcf) Probable Iraqi reserves have been estimated at 275-300 Tcf.

Iraq's proven gas reserves are the tenth largest in the world, and two-thirds of resources are associated with oil fields Just under 20 percent of known gas reserves are non-associated. The majority of non-associated reserves are concentrated in several fields in the North.

The Ministry of Oil reported that approximately 60 percent of associated natural gas production is flared due to a lack of sufficient infrastructure to utilize it for consumption and export. The flaring of the natural gas has meant lost Liquefied Petroleum Gas (LPG) output of an estimated 4,000 tons per day, while at the same time there are LPG shortages requiring imports of 1,200 tons per day.

### 1-Current Energy policy and measures of each country

The policy of the current energy points below, which it happened as a result of the bad policy of the past regime, because of ongoing wars and presented to an economic embargo and a comprehensive science and is still trying to hinder the growth and stability till now:-

Sale the different types of energy to the citizens at low prices.

Approximately 60 percent of associated natural gas production is flared due to a lack of sufficient infrastructure to utilize it for consumption and export.

The policy of rationalization to consumption is weak and citizen awareness is low in energy consumption.

Reliance on renewable energy is very weak, "does not exceed 1% of total energy production" and there is no use of solar energy in heating and water heating.

Total losses in electric power are very high" more than 50% as a result of poor power factor and the load of the transmission lines are higher than the designated, the transmission and distribution of electrical networks are very old and the weakness of the supervisory role to the consumers of electric power and the many abuses and poor control meters and reluctance to pay electricity bills and do not use smart meters and distribution control centers and the weakness of bill collection.

## Weak in use of thermal insulation in buildings

Low level of environmental awareness and lack of carbon emissions reduction.

Inefficient economic management of the production and consumption of electricity and management of electrical systems and weak coordination between relevant energy ministries (oil and electricity).

From the above points we note the weaknesses of the energy policy of the country and that need to be a correct policy urgently and applied to redress the imbalance for the purpose of energy saving and end the suffering of the citizen as a result of a shortage in the electrical supply and volatility for oil products, to improve services and develop agriculture, industry, trade and security reality a result, reduce carbon emissions to improve environment....

## We include below a table that contains

Information about the reality of electricity and oil in Iraq

IEEJ: June 2010

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1	Oil production barrels/day	2.4 million barrels/day	2.6 million barrels/day
2	Oil Consumption barrels/day	0.6 million barrels/day	0.6 million barrels/day
3	Associated Natural Gas Production million cubic feet /day		1492
4	Associated Natural Gas Utilization million cubic feet /day	175	827
5	Associated Natural Gas Flared million cubic feet /day		665
6	Electrical Energy Production billion KW hours	40	52
7	Electrical Energy Demand billion KW hours	96	105
8	Electrical Power Demand MW	11000	12000
9	Electrical Power Generation MW	4538	5899
10	Electrical Power (peak) MW	6204	7575
11	Electrical Power Installed Capacity MW	13515	15362

#### 2- Energy demand and supply (statistics)

		2008	2009
1	Electrical Energy Demand mega watt hour	73394000	77690000
2	Electric Energy Supply mega watt hour	39869055	51837638
3	Electric Energy Sales mega watt hour	19598139	25857349
4	Percentage Losses	51%	<b>52%</b>

Major difficulties and bottlenecks currently faced in formulating energy policies of each country

#### A

### Electrical energy demand much more than supply

B

The supply & transportation of the fuel to the newly installed power plants over the map of Iraq (pipelines & trucks )

C

The national grid & distribution networks needs to update & increase the capacity of its components to face the increasing rates in the energy demands.

D

Shortage & quality of the Iraq rivers water as they emerges mainly from the neighboring countries (north, south & west ) as they built many dams to store the water for irrigation & electrical power generation which have a negative effects on the power plants & the power generation.

The lack of experience in (operation & maintenance) of the workers in the power plants due to the expansion of the newly installed plants & the lack of the condensed training for them.

F

The product capacity of the Iraqi oil refineries is less than the needs of the power generation so ministry of electricity imports large amount from the neighbor

Countries.

# Subjects I would like to study in the order of priority and the reason



Implement of heat isolation to reduce the energy consumption

B

Increase the electrical energy tariff to reach the real coast so create good behavior for energy consumption and reduce the shortage of electric power production C

Depend on solar power for heating & water heating to compensate the shortage in electric power.

D

Reduction the losses & improve the power factor because the losses in Iraqi electric network exceed 50% and there is ability to reduce it to 10%.



A plan for environmental improvement and reduction of carbonic emission

# Ja'afar Mohammed Hashim mohammadalarajy@yahoo.com April 25, 2010

