Country Report

IRAQ

1-Current Energy policy and measures in Iraq

- Iraq is located in west of Asia and its 450000 square kilometers area, and about 31 million population, Iraq was the world's 12th largest oil producer in 2009, and has the world's fourth largest proven petroleum reserves after Saudi Arabia, Canada and Iran.


TÜRKEI
SYRIEN
IRAN
SAUDI-
ARABIEN
KUWAIT
Mosūl
Arbīl
As Sulaymānīyah
Kirkuk
Sāmarrā'
BAGDAD
Ar Ramādī
Ar Ruṭbah
Karbalā'
Al Kūt
An Najaf
An Nāṣirīyah
Al Baṣrah
Umm Qasr
Buḥayrat ath Tharthār
Buḥayrat ar Razāzah
Tigris
Euphrat
Shatt al Arab
ers. Golf
0 50 100 km
0 50 100 mi
40
45
35
30

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.

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

Iraq has begun an ambitious development program to develop its oil fields and to increase its oil production. Passage of the proposed Hydrocarbons Law, which would provide a legal framework for investment in the hydrocarbon sector, remains a main policy objective. Despite the absence of the Hydrocarbons Law, the Iraqi Ministry of Oil signed 12 long-term contracts between November 2008 and May 2010 with international oil companies to develop 14 oil fields.

When these fields are fully developed, they will increase total Iraqi production capacity to almost 12 million bbl/d, or 9.5 million bbl/d above current production levels. The contracts call for Iraq to reach this production target by 2017.

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.

Iraq’s natural gas sector is believed to contain significant untapped resources which the Government of Iraq would like to develop for domestic consumption and export.

Plans to export natural gas remain controversial due to the amount of idle and sub-optimally-fired electricity generation capacity in Iraq - much a result of a lack of adequate gas feedstock.

Iraq has planned an upstream bidding round in late 2010 for three non-associated natural gas fields with combined reserves of over 7.5 Tcf. This will be the third hydrocarbon bidding round conducted by Iraq, following two earlier rounds that were held to develop Iraq’s oil fields. Iraq has committed to purchasing 100 percent of the gas.

- The points below represent the current energy policy, as well as mentioned above 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:-

1

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

2

Weak consumption rationalization policy.

3

- Very low Reliance on renewable energy, particularly the use of solar energy in heating and water heating.

4

Total losses in electrical energy are very high ”more than 50%”.

weak in use of thermal insulation in buildings due the absence of laws which encouraging the consumer to use it and organize this matter.

6

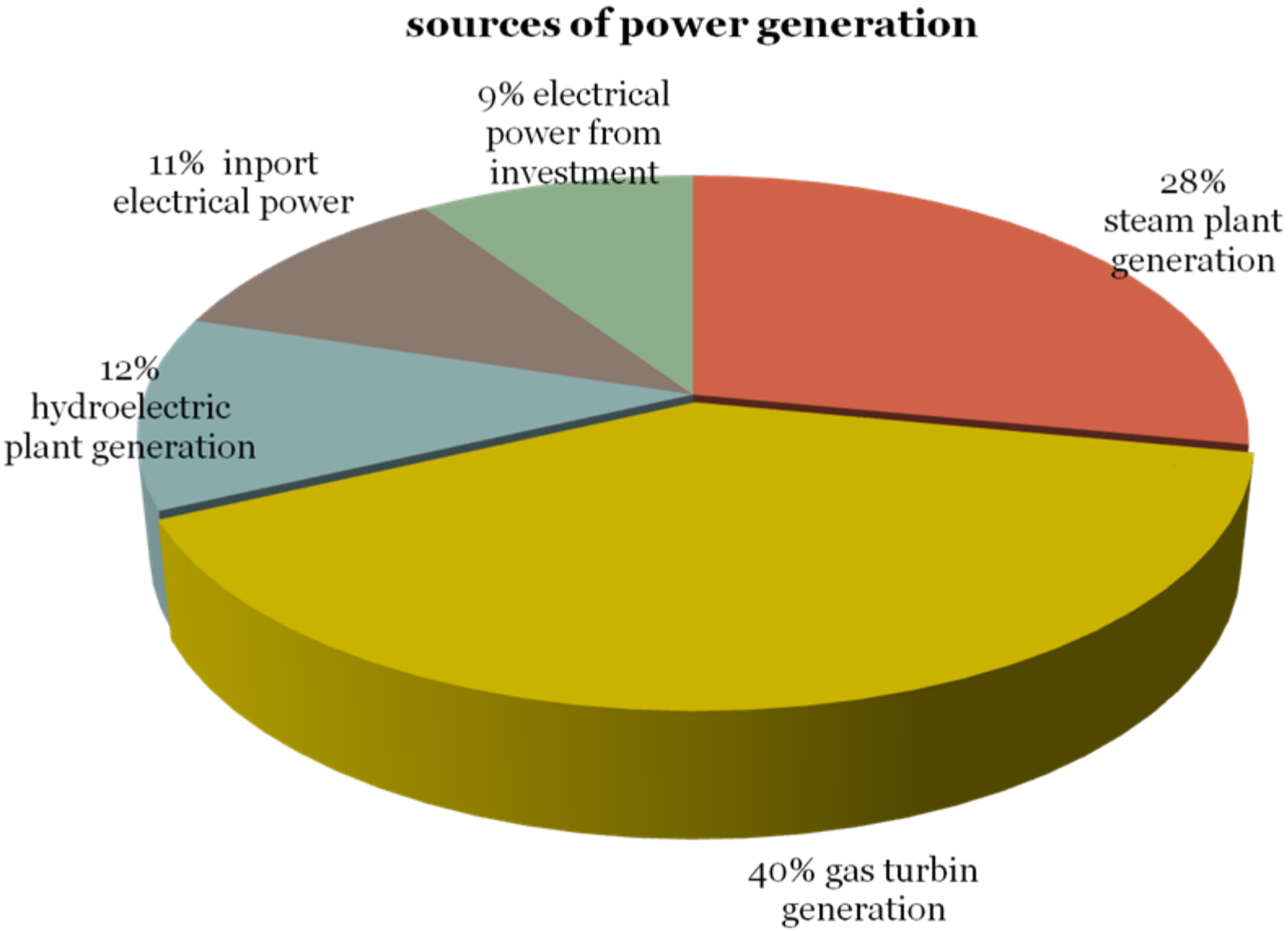
Low level of environmental awareness and lack of carbon emissions reduction.

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 in the most items which was mentioned above 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 energy supply and volatility for oil products, to improve services and develop agriculture, industry, trade and security reality a result, reduce carbon emissions to improve the environment....

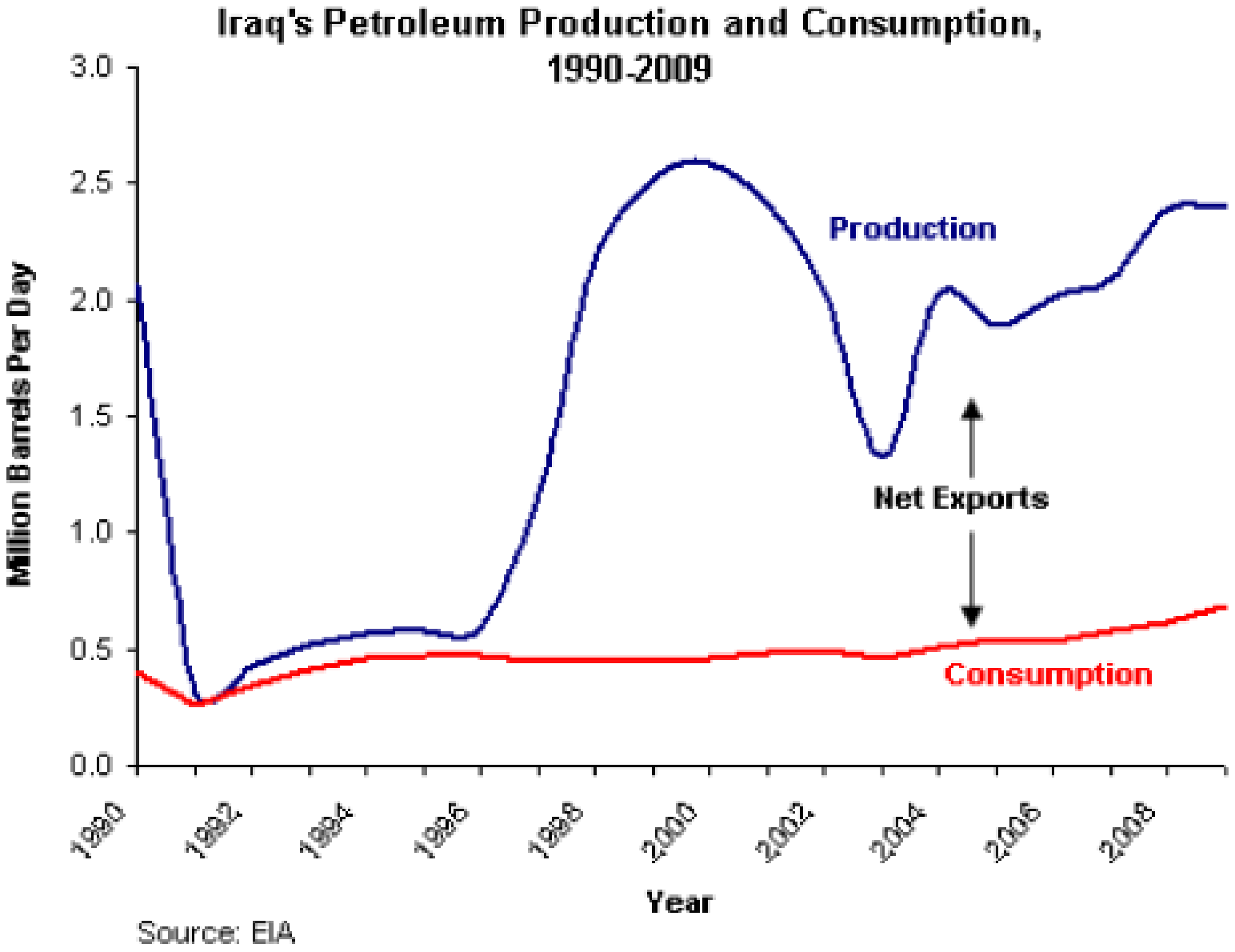
We include below a table that contains Information about the reality of electricity and oil in Iraq

		2009	2010
1	Oil production barrels/day	2.4 million barrels/day	2.5 million barrels/day
2	Oil Consumption barrels/day	0.5 million barrels/day	0.6 million barrels/day
3	Associated Natural Gas Production million cubic feet /day	1444	1562
4	Associated Natural Gas Utilization million cubic feet /day	746	705
5	Associated Natural Gas Flared million cubic feet /day	698	857
8	Electrical Power Demand MW	12000	14000
9	Electrical Power Generation MW	5899	6818
10	Electrical Power (peak) MW	6204	7575
11	Electrical Power Installed Capacity MW	7575	7920


sources of power generation
9% electrical power from investment
11% inport electrical power
28% steam plant generation
12% hydroelectric plant generation
40% gas turbin generation

2- Energy demand and supply (statistics)

		2009	2010
1	Electrical Energy Demand mega watt hour	105120000	122640000
2	Electric Energy Supply mega watt hour	51837638	55603946
3	Electric Energy Sales mega watt hour	25857349	27443762
4	Percentage Losses	50%	50.6%


Iraq's Petroleum Production and Consumption, 1990-2009
Million Barrels Per Day
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Production
Net Exports
Consumption
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
Year
Source: EIA

3

Major difficulties and bottlenecks currently faced in formulating energy policies in Iraq

A

Electrical energy demand much more than supply

B

The relationship between the Ministry of Oil and Ministry of Electricity as dependent on each other for that product, the expansion in one means to increase consumption at the other and vice versa.

C

A culture of excessive energy consumption among the citizens.

D

The absence of a national Iraqi law organize investment in energy sector.

E

The lack of an outlet for significant increases in crude oil production. Both Iraqi refining and export infrastructure are currently bottlenecks, and need

to be upgraded to process much more crude oil.

F

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

G

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

H

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.

I

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

J

Iraqi refineries have antiquated infrastructure and only half run at utilization rates of 50 percent or more. Despite improvements in recent years, the sector has not been able to meet domestic demand of about 600,000 bbl/d, and the refineries produce too much heavy fuel oil and not enough other refined products. As a result, Iraq relies on imports for 30 percent of its gasoline and 17 percent of its LPG.

4

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

A

The use of thermal insulation to reduce the energy consumption.

B

Increase the electrical energy tariff to reach the real cost 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%.

E

The used of nuclear energy in generation of electric power to reduce the reliance on fossil fuel and compensate the shortage in electric power.

F

The use of natural gas to meet the domestic needs from thermal energy.

G

A plan for environmental improvement and reduction of carbonic emission

Thanks for your attention

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Thank you for your attention

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