

Capacity Building in Baghdad for the Government of Iraq

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IRAQ'S SOLAR ENERGY PROCUREMENT PROGRAMME

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Chana Abrams of Channing Law has been mandated by the International Renewable Energy Agency (IRENA) and the United Nations Development Programme (UNDP) to provide Capacity Building in Baghdad for the Government of Iraq relating to Iraq's solar energy procurement programme.

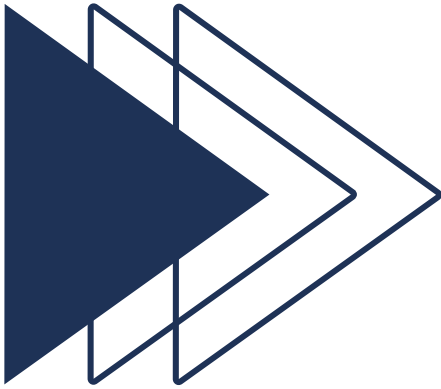
As part of the IRENA / UNDP programme (together with Jean-Pascal Pham-Ba of Paradigm Partnership), Chana delivered a two-day training workshop in Baghdad, attended by Iraqi governmental delegates.



1 IRAQ'S ENERGY SYSTEM

Iraq has recognised the potential for renewable energies and plans to increase its renewable energy share by 10% by 2030 (Al-Maleki, 2020). It is estimated that solar PV will account for 42% of the total renewable energy mix by 2025.

However, in 2018 only 2% of the electricity generation mix came from renewables. This is despite Iraq being endowed with rich revenue resources. For example, according to studies, Iraq benefits from more than 3,000 hours of solar radiance per year (Kazem and Chaichan, 2012).



2 ENERGY DEMAND AND SUPPLY

Energy demand in the Republic of Iraq has increased and the generating capacity has not been able to meet this demand, resulting in serious power shortages. The economic cost of these shortages was estimated to be more than US\$22 billion in 2013 (Istepanian, 2020b).

It is assumed that the electricity demand will reach around 170TWh by 2035 (Al-Khafaji, 2018). The current and future increasing demand for electricity is stimulated by population and economic growth, driven by a surge in consumer purchases (ibid).

In 2018 Iraq's operational capacity was between 14GW and 15GW, while the installed capacity was 26.2GW with a peak demand of 25GW, spiking in summer (IEA, 2019; Al-Maleki et al, 2019).

There is a significant gap between peak demand and grid supply. This has resulted in Iraqis privately acquiring diesel generators to fill the demand gap (Al-Kayiem and Mohammad, 2019; Istepanian, 2020b; TradeArabia, 2018).

The Electricity Law No. 53 of 2017 states its objective of "*supporting and encouraging*" the adoption of renewable energy and its activities.

The introduction of the **Law on Protection and Improvement of the Environment in 2009**, the **Integrated National Energy Strategy of 2014** and **renewable energy auctions in 2016** have so far had little impact on renewables-based electricity generation.

In **2006** the **Foreign Direct Investment Law 13** was introduced, which was amended to **Law No. 2 of 2010 and subsequently to Law No. 50 of 2015**. Pursuant to such legislative framework, a foreign investor or developer is entitled to make investments in Iraq without limitations.

In **2009** the **Law on Protection and Improvement of the Environment (Law No. 27 of 2009)** was passed, focusing on monitoring pollution from all activities.

In **2014** the **Integrated National Energy Strategy of Iraq** was developed as an attempt to create an energy vision; however, it did not take into account the reality of the challenges facing Iraq and to date has been difficult to implement.

The energy auction scheme was implemented in 2016, followed by the Electricity Law No. 53 of 2017; both were designed to accelerate the use of renewable energy. This legislation was Iraq's first endeavour to combine support for renewables, to increase energy efficiency and to protect the environment.

The National Development Plan from 2018 recognises that Iraq is one of the countries most affected by climate change and lists eight objectives for the electricity sector, which mainly target the security of electricity supply (*Ministry of Planning, 2018*).

In 2019 the Ministry of Planning formulated "*Vision Sustainability 2030*", which focuses on "*empowered Iraqis in a safe country, a unified society with diversified economy, sustainable environment, justice and good governance*" (*Ministry of Planning, 2019*).

However neither the National Development Plan (2018) nor the Vision Sustainability 2030 outlined a specific renewable energy development plan. Despite this, the Republic of Iraq's legislative framework represents a starting point for bankable renewable energy projects.

4 INSTITUTIONS AND GOVERNANCE

The electricity sector is fully managed by the Ministry of Electricity. Under the Ministry of Electricity, four federal companies are responsible for generation and transmission. Similarly, four federal distribution companies – Baghdad, Middle, South and North – are the entities responsible for electricity distribution.



5 IRAQ'S POTENTIAL FOR RENEWABLE ENERGY



Iraq has a huge potential for renewable energy. However, the Iraqi electricity sector has struggled to adequately develop its renewables potential with political instability creating challenging market conditions.

The existing *"Vision Sustainability 2030, which embraces a new social contract between the state and its citizens to enhance their trust in the government and provide opportunities for self-development, work and generating income"* (Ministry of Planning, 2019) represents a starting point for Iraq's move to renewables.

As Iraq looks to the future, harnessing the potential of renewable energy with the requirements for energy security and stability of electricity can be considered one of the many priorities of the Government of Iraq.

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