



Iran 36



Islamic Republic of Iran
The Ministry of Energy
Deputy of Electricity and Energy Affairs

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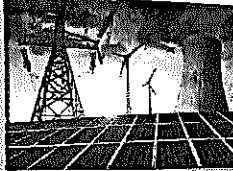

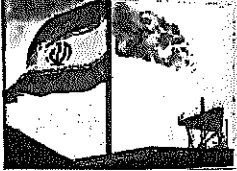
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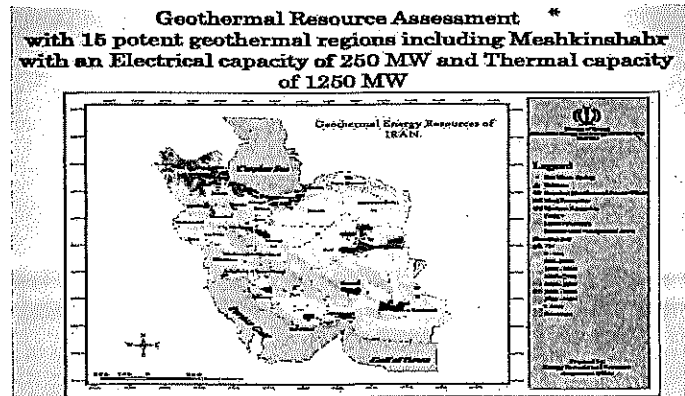
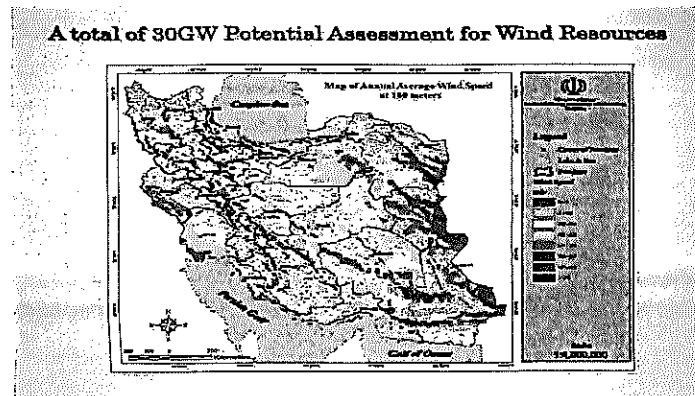
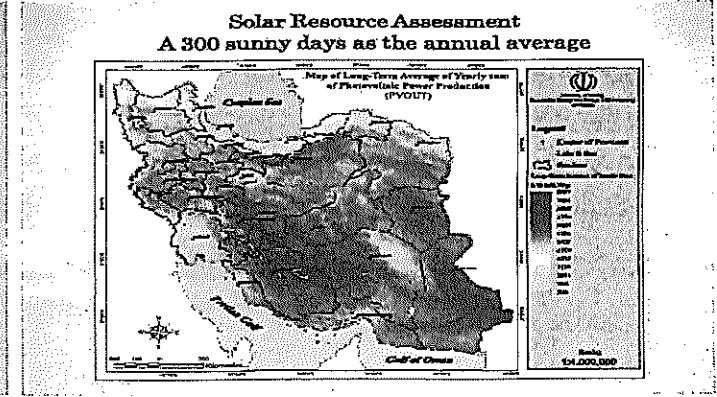
Renewable Energy


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Introducing Iran

- ✓ Iran is one of the largest countries in the southwest Asia and Middle East region, with an area of about 1.6 million square kilometers and a population of about 80 million.
- ✓ Iran has a significant share of energy production, accounting for 27% of the world's oil and gas reserves (18% of gas and 9% of oil reserves).
- ✓ First place in the Middle East and 14th place in the world with 81000 MW power plant capacity
- ✓ 9th place in world's of installed capacity of thermal power plants
- ✓ 19th in world , 6th in Asia and second in the Middle East with over 12000 MW of hydro power capacity



- ### Renewable Energy Targets
- A minimum of 5000 MW renewable development by 2021 (The 6th Development Plan Law)
 - A more ambitious target may be set by 2030.
 - The above mentioned targets to be fulfilled by the interactive private sector participation through the Feed in Tariff system (A 20-years PPA).
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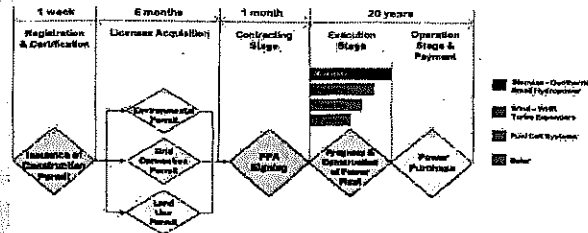
w/ Policy Related to "Renewable Energy" in IRAN

Law on Protection of Power Industry Article 5 (Receive 10% of electricity bills as electricity charges)

The law on the purchase of electricity from renewable and clean power plants (Article 61 of the executive regulations of the law modifying the pattern of energy consumptions)

Law on Removing Competitive Production Barriers and Promoting the Financial System of the Country, Section B, Article 12

Executive process of Clean and Renewable Energy Power Plants Investment



Steps of implementing projects

- (1) Registration and acquiring Establishment License from SATBA
- (2) Gathering three permissions including:
 - Grid Connection Permission from the Local Electricity Companies or TAVANIR
 - Environmental Permission from Iran's Environmental Protection Organization (IEPO)
 - State Owned Land Use Permission from the governmental lands authorities (It is not the case for the private lands)
- (3) Signing Power Purchase Agreement (PPA) contract with SATBA
- (4) Construction of the power plant. SATBA will generally monitor and supervise the activities in this step
- (5) Operation of the Power Plant. SATBA will coordinate the grid connection tests & inspections via Iran Grid Management Company (IGMC) to start the operation period, and will also pay the monthly invoices.

Feed-in-Tariffs on different Technologies

Power Plant Type		Tariff (Rls/kWh)
1 Biomass	landfill	2700
	Aerobic digestion of manure, sewage and agriculture Incineration and waste gas storage	3500
2 Wind farm	above 50 MW	3400
	50 MW and less	4200
3 Solar farm	above 30 MW	3200
	10 To 30 MW 10 MW and less	4000
4 Geothermal (including excavation and equipment)		4900
5 Waste Heat Recovery in industrial processes		2500
6 Small Hydro (<10 MW)	on the rivers and side facility of dams	3800
	on the pipelines	3250
7 Fuel cell systems		4948
8 Turbo expanders		1600
Small scale prosumers plants limited to subscriber connection capacity		
9 Wind with the capacity of 1 megawatt and less		3700
10 Solar	20 to 100 kW	7100
	20 kW and less	8000

More Points on PPA

- In any time during and after the PPA period, the power plants are permitted to sell their electricity to the Electricity Market, to a third party or even export from Iran.
- If the payments by SATBA done with delay, SATBA will pay a delayed payment penalty based on inflation rate announced by Central Bank.
- SATBA as the "PPA buyer", should buy the contacted amount of electricity generated. If the National Grid was not prepared to take the electricity, SATBA will pay the price to the seller.
- As soon as the construction phase completed, "Investor" is free to transfer the property of its own power plant.
- MOE's policy is to reduce the tariffs in a smooth manner in proportion with an increase in installed capacities. However this does not affect the already signed PPAs.

Export of renewable electricity to abroad

- Ministry of Energy has endorsed the goal of exporting electricity to neighboring countries in order to encourage domestic and foreign investors to generate solar and wind power.
- Renewable Energy and Energy Efficiency Organization (SATBA) plays a facilitating role in this regard.
- Investors are requested to pay only the cost of electricity transit to Ministry of Energy.
- SATBA will issue RE construction licenses for applicants in a week time to export electricity.

