Future Israeli Energy Mix

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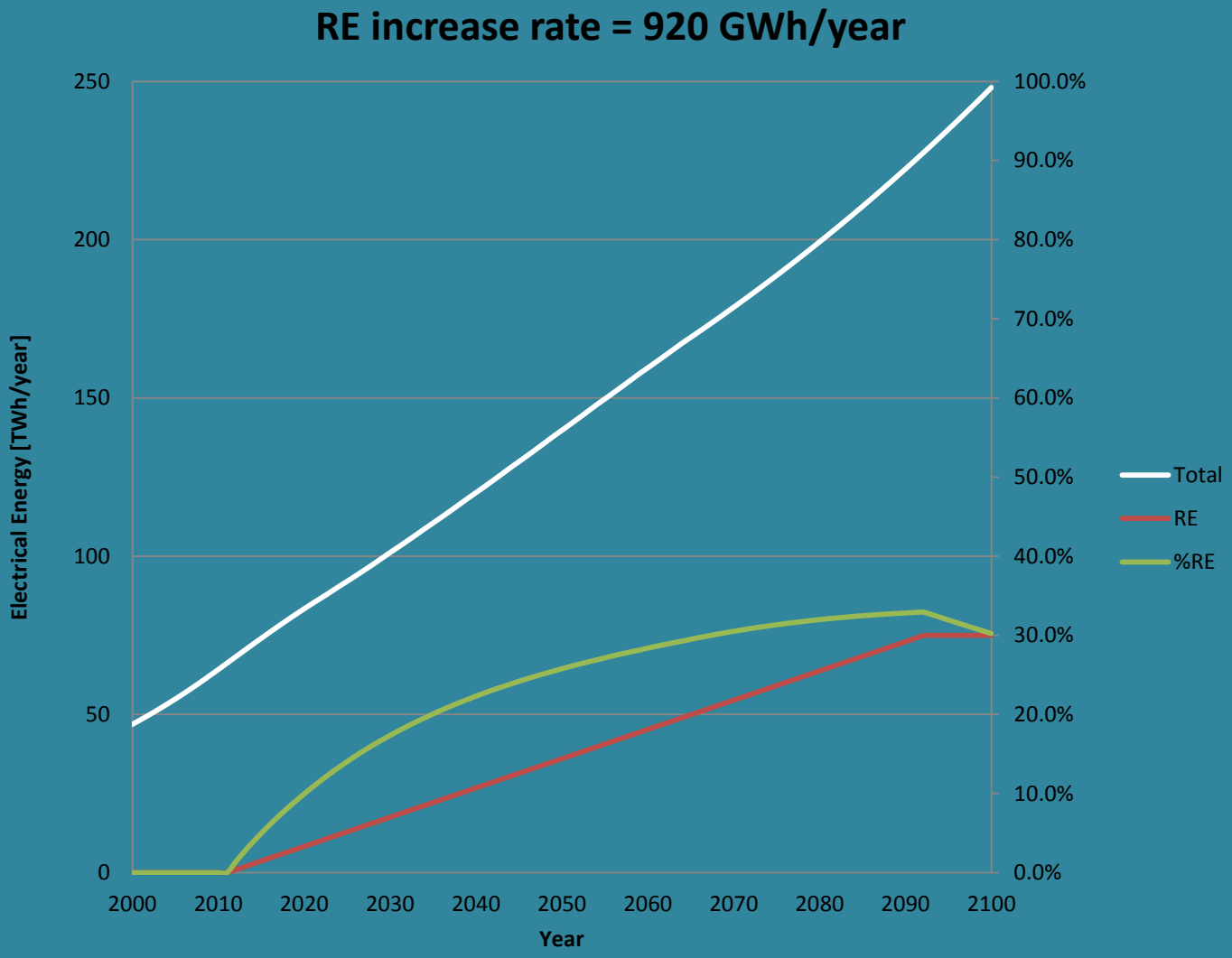
2008 IEA data

Primary Energy sources

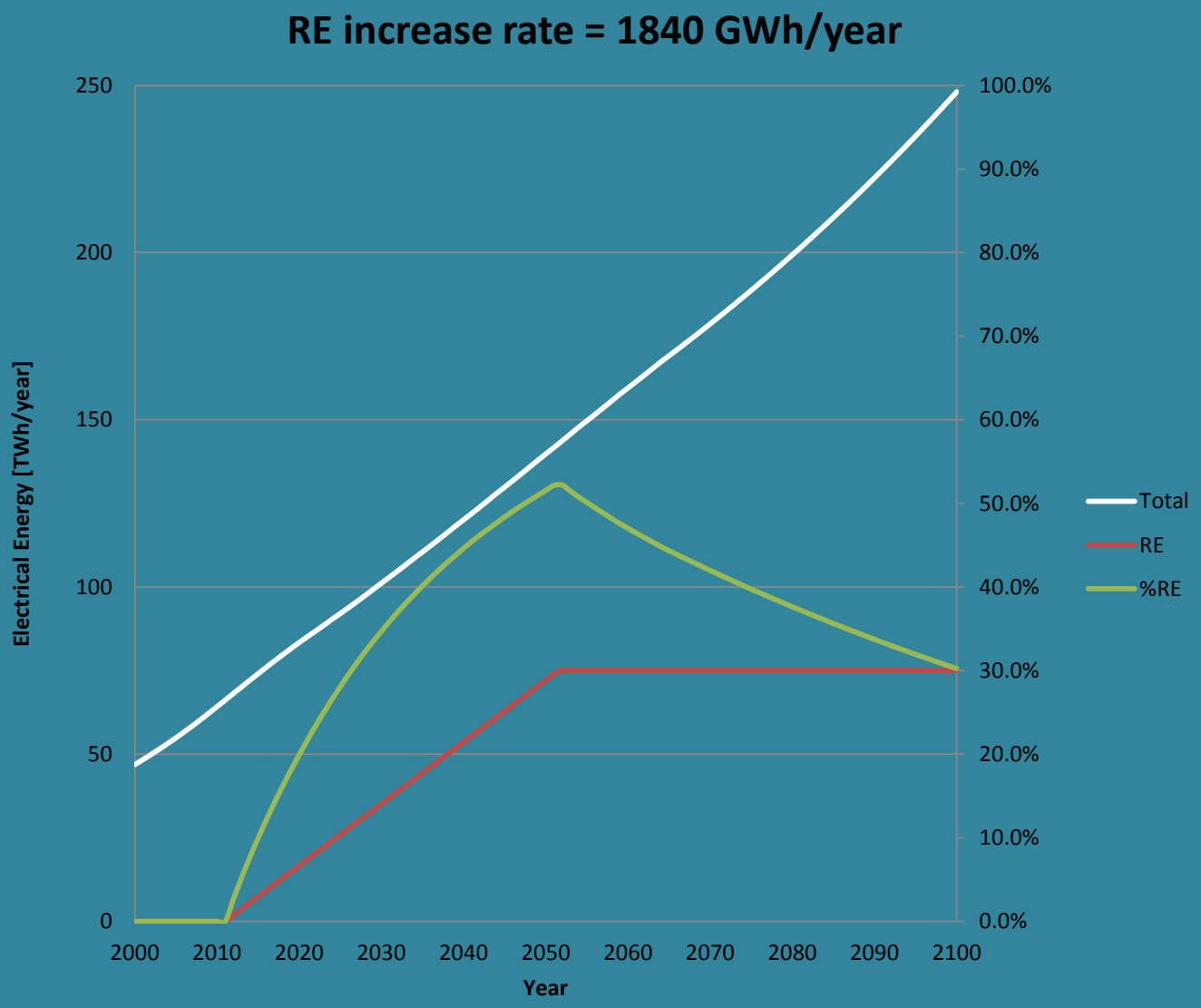
Source	Quantity [Mtoe]	Electricity [TWh]	Imported [%]	Estimated Local resources & Estimated availability on Y2020	Notes
Coal	**9.6** (9.6)	**36.7** (36.7)	100%	None	ε=33%
NG	**5.5** (1.8)	**29.2** (9.7)	50 %	600 BCM (540 Mtoe)	ε=46%
Crude Oil	**13.4** (9.1)		~100%	Almost none	
Refining Products	**11.1** (7.5)	**0.7** (7.6)	<20%		
Oil Shale	**0.023** (0.023)	**0.04** (0.04)	0%	15 Bt (700 Mtoe) not yet exploited	
Biomass	**0.04**	**0.47** (0.003)		Wastes: ~6 Mt/year; Algae, Jatropha, … ~1.5Mtoe 100MW mainly gas from MSW landfill	
Sun	**1.5** (0.7)	**5** (0.0015)		~600 km^2 ➔ ~30 GW; **~58 TWh**, but **2.5 GW on 2020**	2000h/y ε=28%
Wind	**0.3**	**2.5** (0.012)		~1.8 GW e.g. **~4.5 TWh** approaching **1 GW on 2020**	2900h/y
Hydro		**0.027** (0.027)		< 20MW (Without Red-Dead Canal)	
Geothermal				Negligible (Only at ~10km deep)	
Tides				Negligible	
Total	**40.6 (28.7)**	**73.5 (54.1)**		➔ A limit of ~75TWh/year from RE sources	

The Renewable (RE) role in the Future Electrical Energy (1)



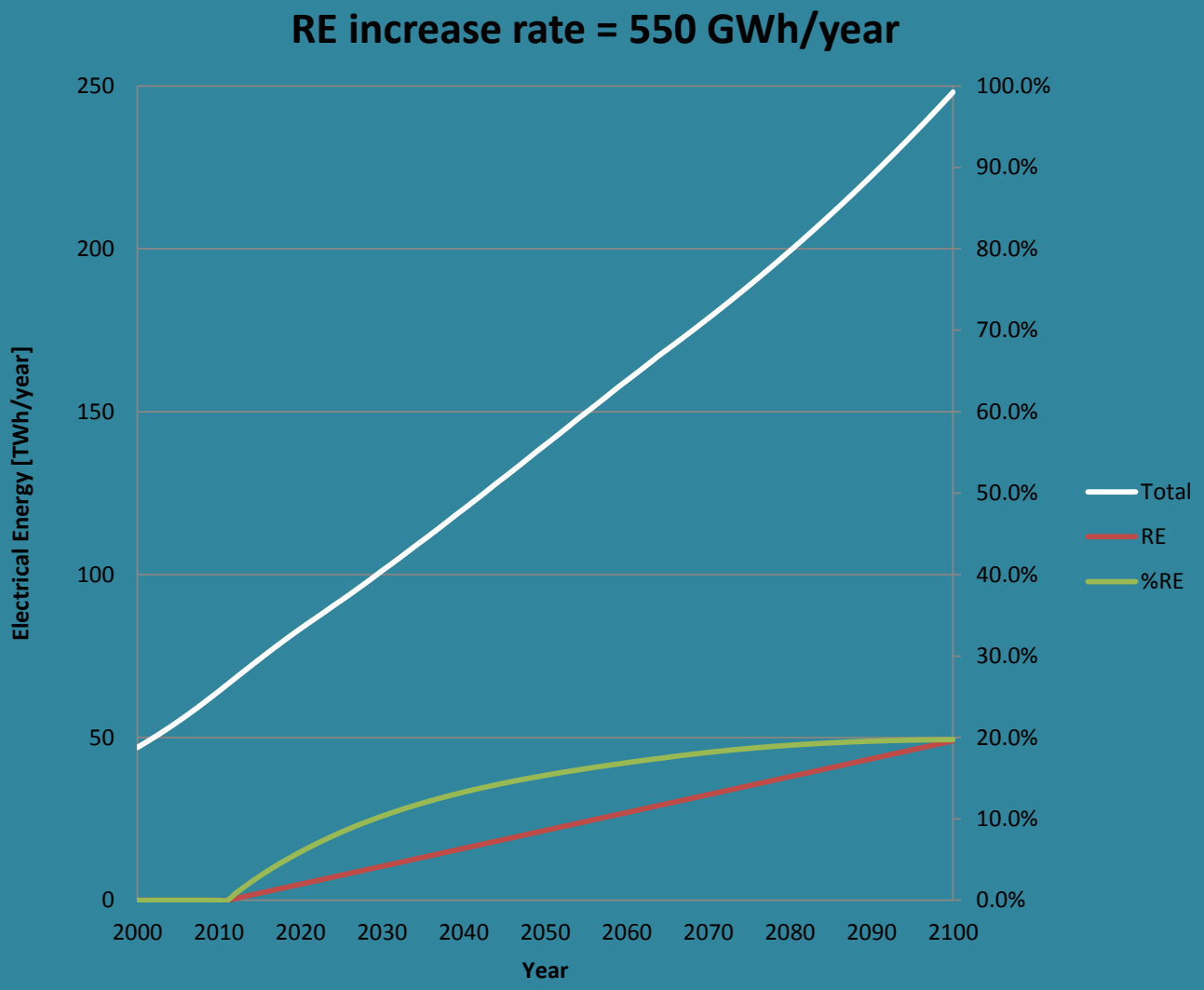
The ratio of RE to the total electricity consumption in case of fulfillment of the Governmental 2008 decisions (Equivalent to the installation of about 400MW solar power-plants a year)

RE portion from the Future Electrical Energy (2)



The ratio of RE to the total electricity consumption in case of ambitious scenario (Equivalent to the installation of about 800MW solar power-plants a year

RE portion from the Future Electrical Energy (3)



The ratio of RE to the total electricity consumption in case of modest scenario (Equivalent to the installation of about 250MW solar power-plants a year