

Renewable Energy Resources in Kenya and the Current Feed-In Tariff Policy

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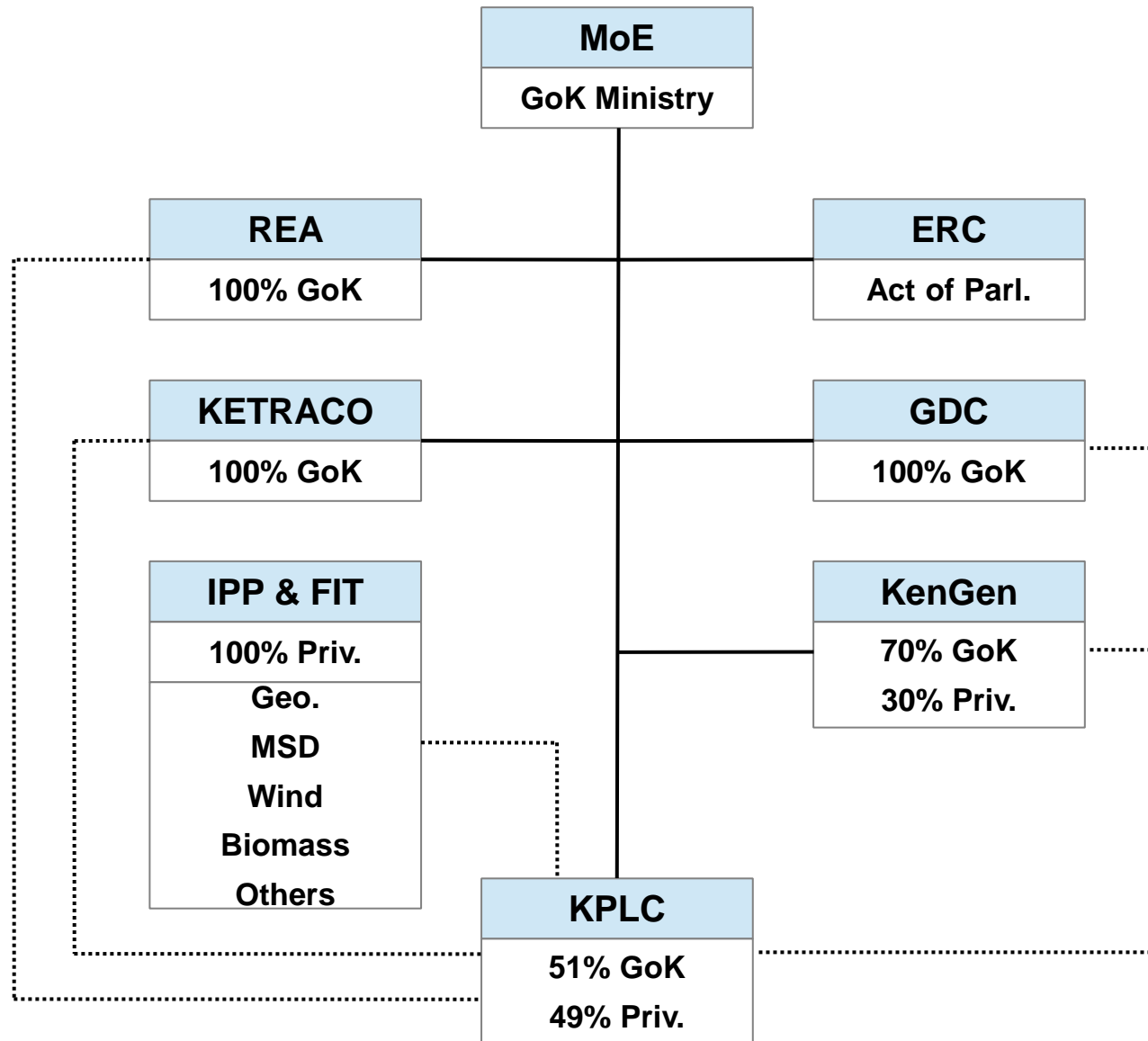
Former Chairman, Energy Regulatory Commission of Kenya

Seminar on Sustainable Energy Investments in Africa
June 24-25, 2014, Copenhagen, Denmark

Demand, Supply, and Existing Grid



Organising Structure of Kenya's Power Sector



Feed-In Tariff in Kenya

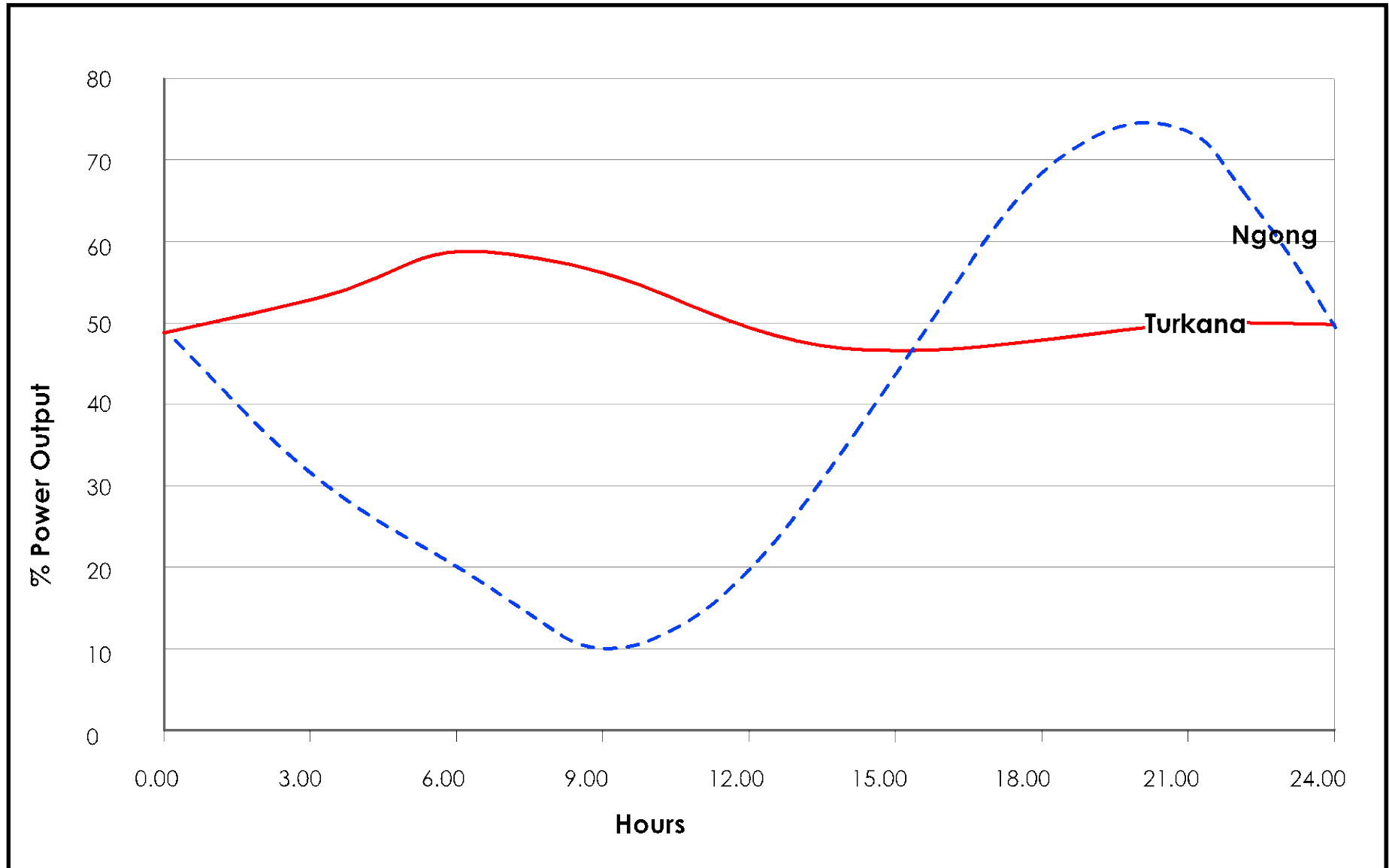
- Feed-In Tariff Policy
- Connection Guidelines
- Standardised PPAs under and over 10 MW

(for details, refer to MoE website: www.energy.go.ke)

Comparitive Costs of Renewable Resources in Kenya

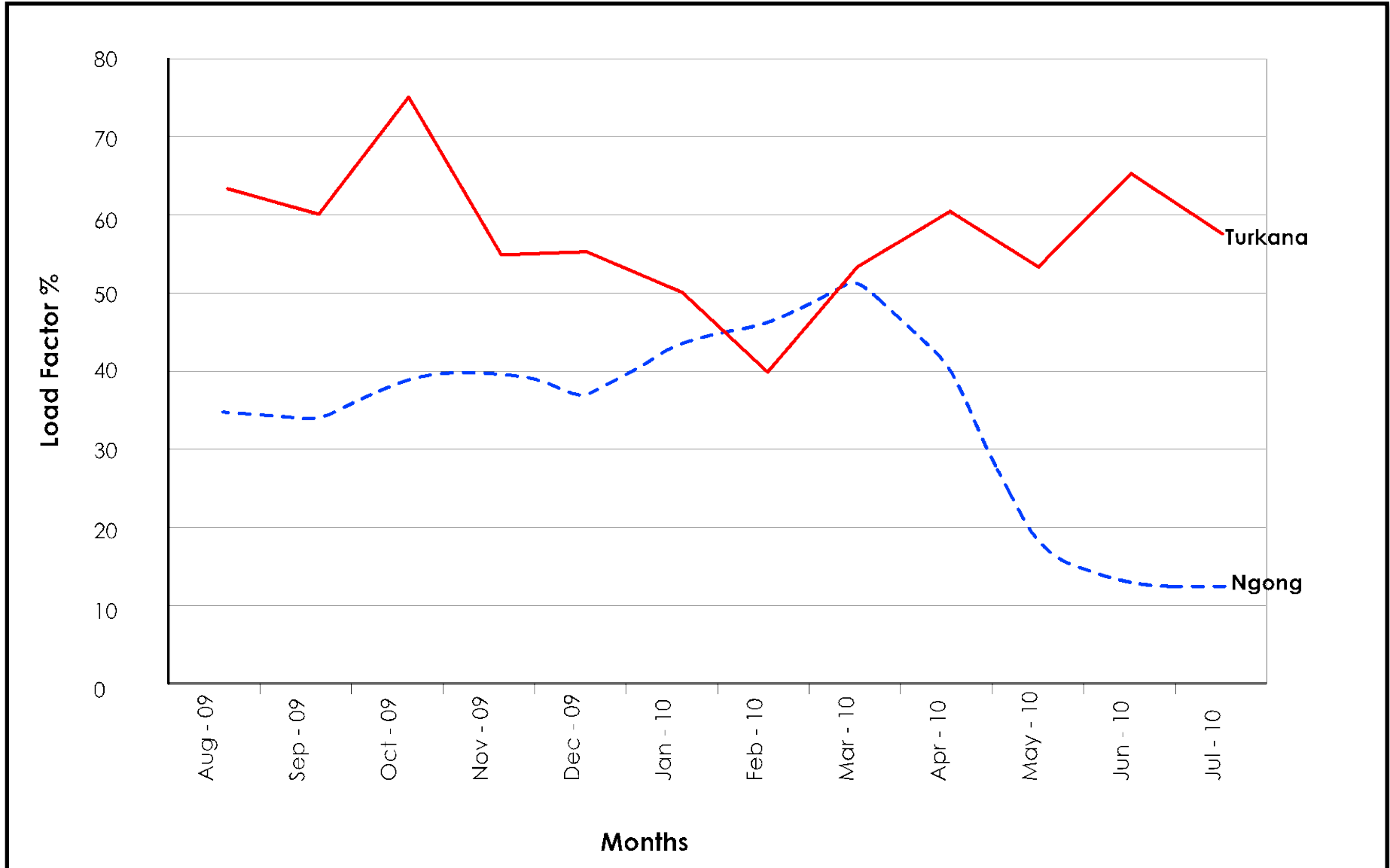
	Typical Load Factor	Cost (U.S. ¢/kWh)	Feed-In Tariff (U.S. ¢/kWh)	
Geothermal				
Conventional	0.8	8.5-9.5	8.8	
Well-Head	0.8	7.5-8.5	8.8	
Wind				
Turkana/ Marsabit	0.50	9.0-10.0	10.0	
All others	0.35	11.0-13.0	11.0	
Biomass	0.8	10.0-11.0	10.0	
Solar				
Grid	0.25	15.0-17.0	12.0	
Off-Grid	0.25	15.0-17.0	20.0	
Hybrid				
Solar/ Biomass	0.8	10.0-12.0	11.0?	
Hydro - Small	0.5	8.0-12.0	8.25	

Daily Wind Power Output

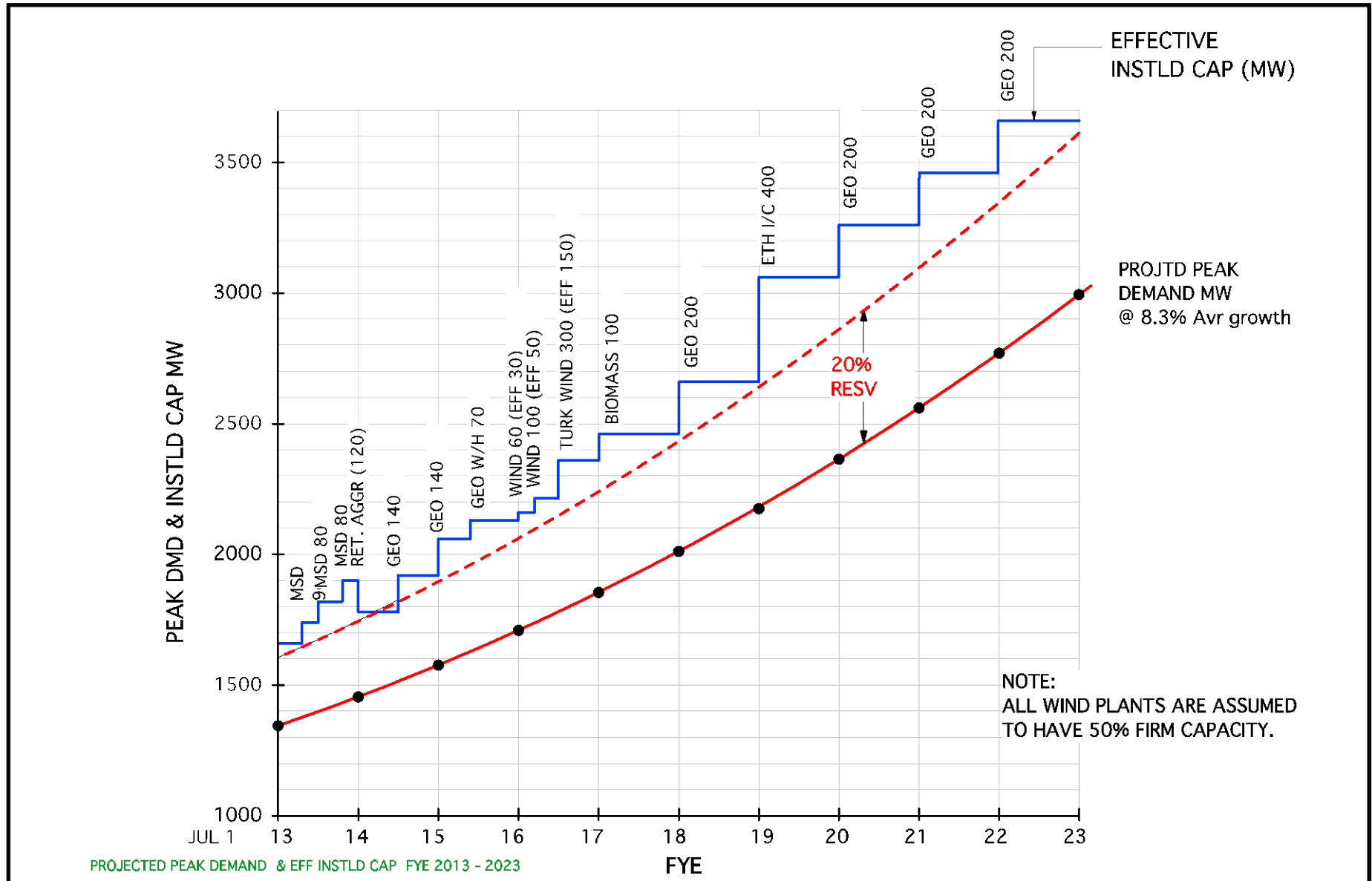


DAILY WIND POWER OUTPUT

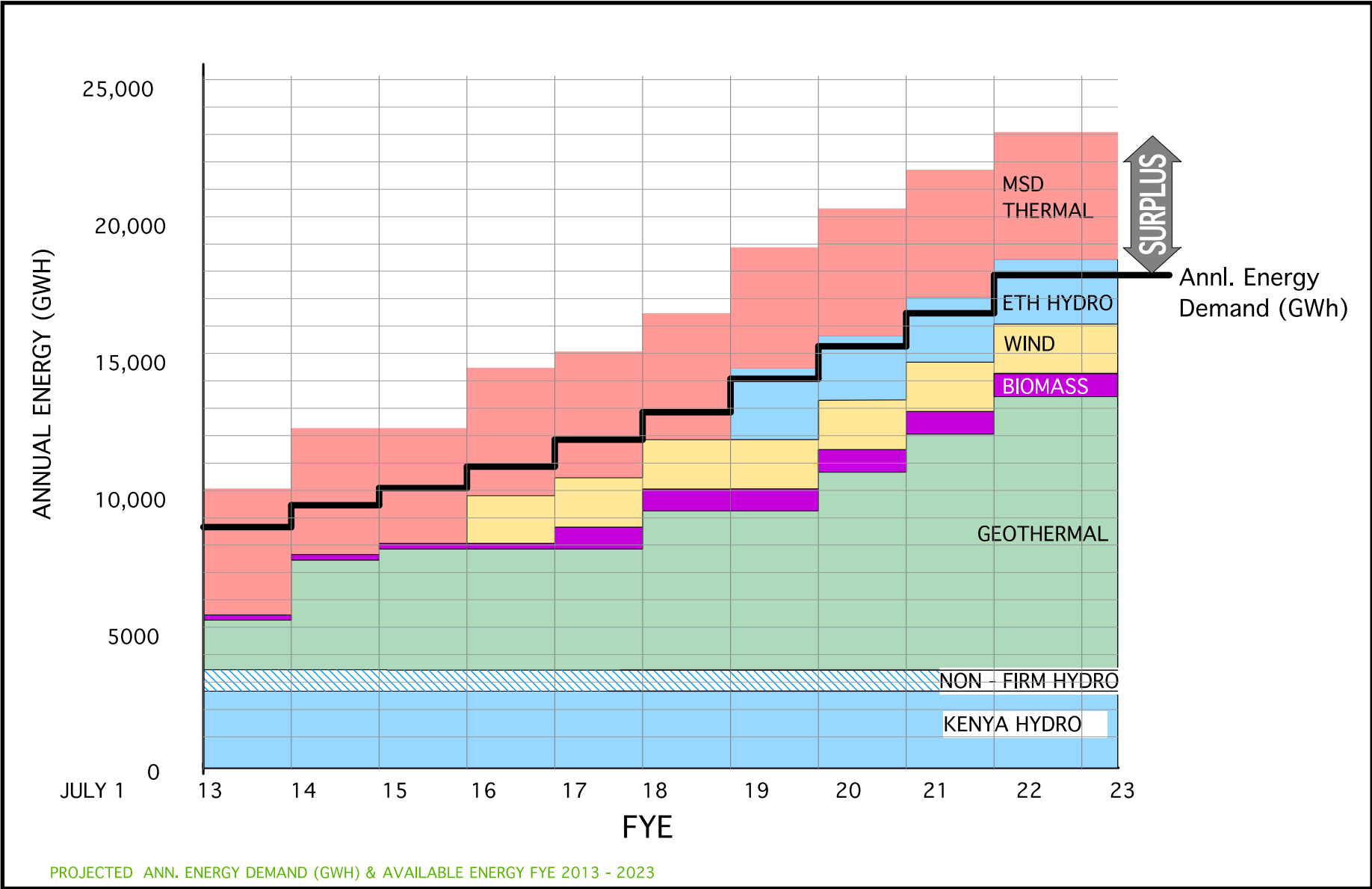
Monthly Power Output



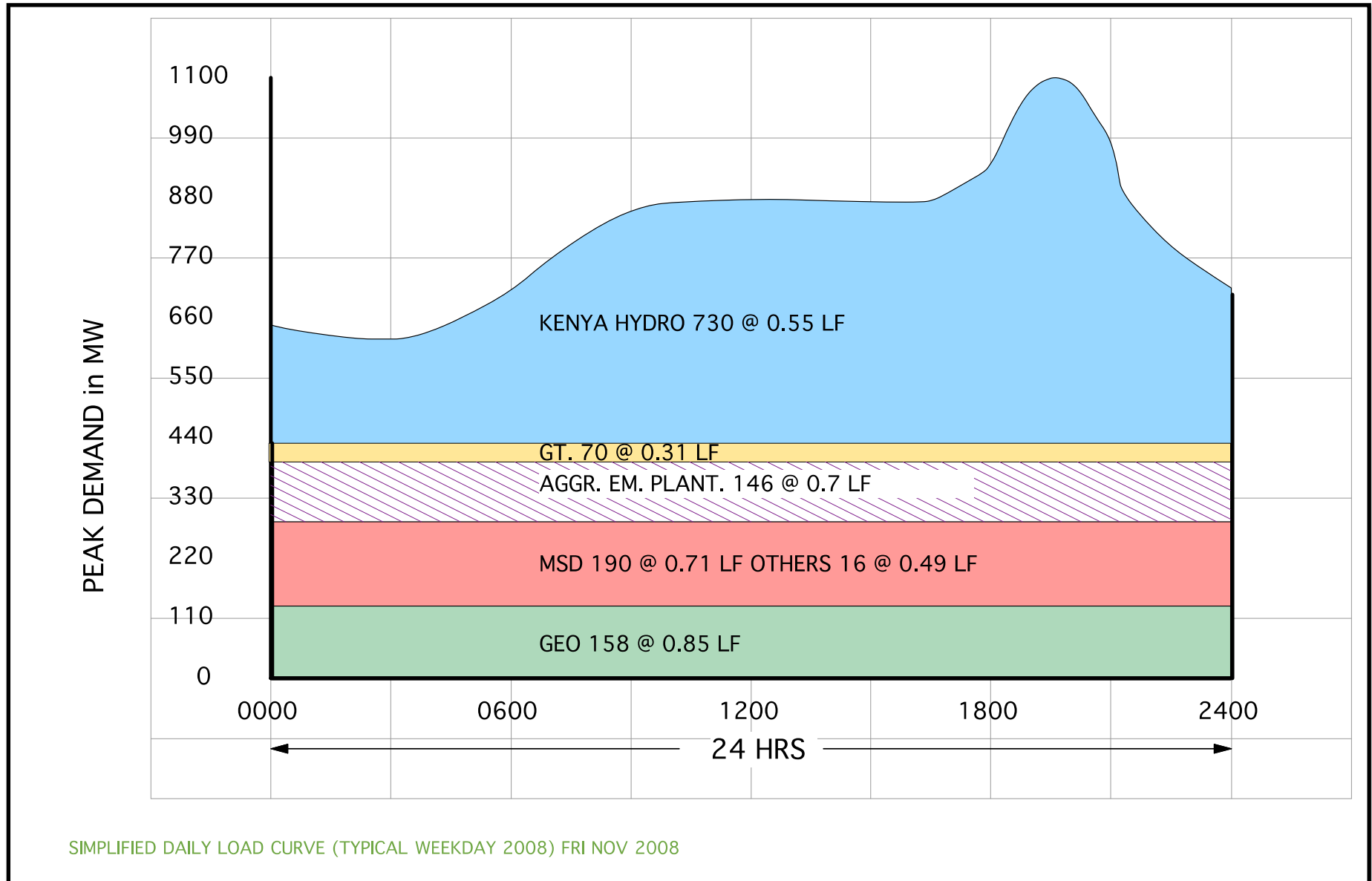
Projected Peak demand & Effective Installed capacity FYE 2013 - 2023



Projected annual energy demand (GWH) & available Energy FYE 2013 - 2023



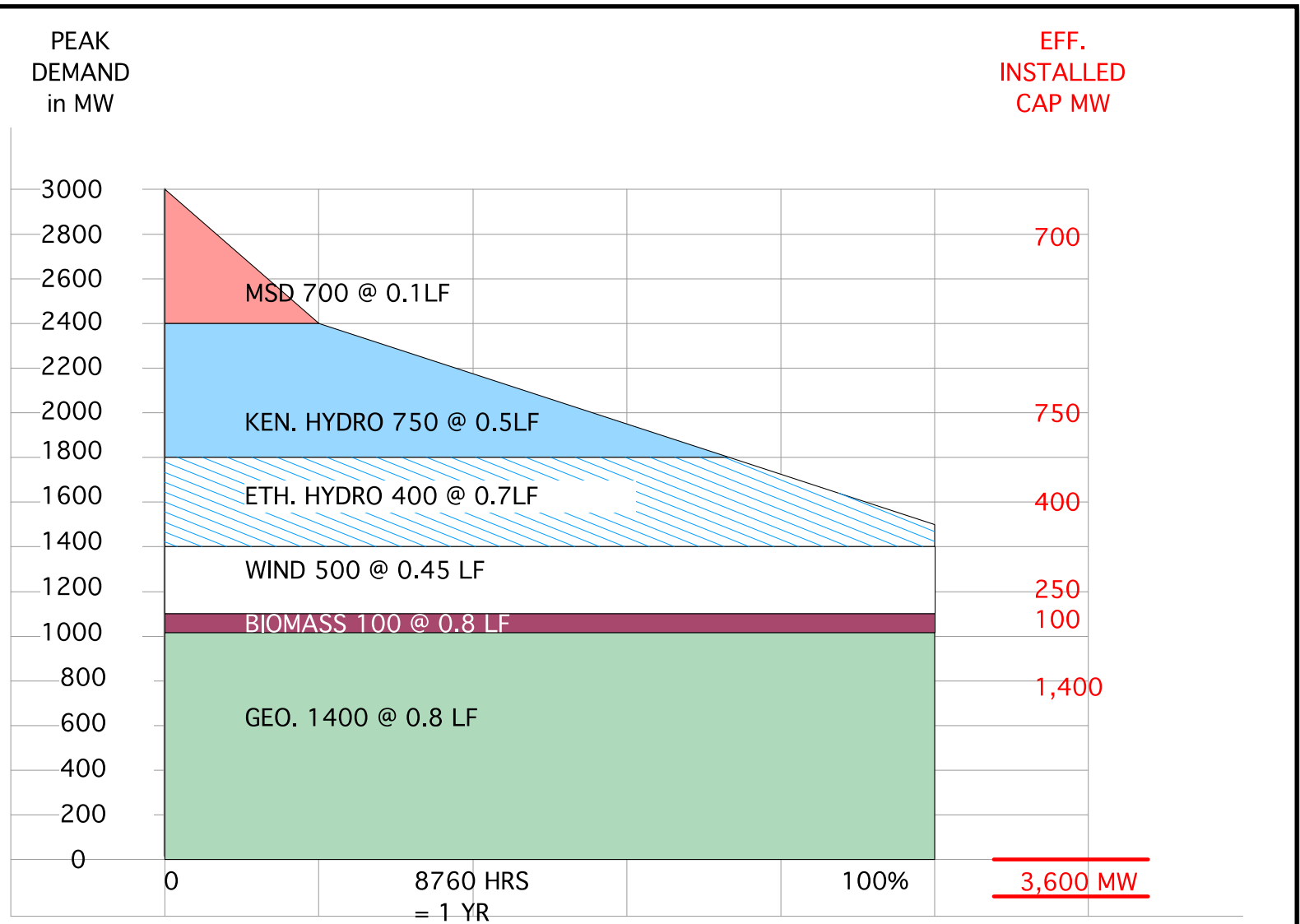
Simplified daily load curve (Typical weekday 2008) Fri Nov 2008



SIMPLIFIED DAILY LOAD CURVE (TYPICAL WEEKDAY 2008) FRI NOV 2008

Simplified annual load duration curve

FYE 2022/2023



PEAK DEMAND = 3000 MW EFF. INSTALLED CAP = 3600 MW ANN. ENERGY = 18,000 GWH LF = 0.68