

THE HARD EXPERIENCE OF RENEWABLE ENERGY PROFESSIONALS

Renewable Energy Development Workshop (**T-RED-LEVEL 1**)

Design from the base!

See the bigger picture for renewable energy technologies and their economics for both urban and rural areas.



In this level participants will be able to build a common ground about the various renewable energy types and their working concepts. On completion of T-RED Level 1 participants should have a comprehensive overview of the main commercially viable renewable technologies, how systems are designed and sized and do initial designs for renewable energy systems. In this level the attendees must be able to design and analyze **Off-Grid** Systems easily.



THE HARD EXPERIENCE OF RENEWABLE ENERGY PROFESSIONALS**Course Content****Day One (1)**

5:30-7:00	About Taqetna and T-RED Program
	Renewable Energy Overview
	Energy, Electricity and Renewable Energy
	Why Use Renewable energy
7:00-7:15	Coffee Break and pray
	Introduction to wind power
7: 15-8:30	Wind energy principles
	Types of wind turbines, large/small, grid-tied/stand-alone

Day One (2)

5:30-7:00	Photovoltaics (PV)
	The solar resource and PV module types
	Installation and Calculation
7:00-7:15	PV Modeling using Computer Aided Design
	Coffee Break and pray
7: 15-8:30	Safety & Battery types and cutting-edge technologies
	Real Problem Design and Modeling

Day One (3)

5:30-7:00	Introduction of solar technologies (Photovoltaic)
	Off-Grid Systems: From concept to design
	Off-Grid Systems design using PV Syst.
7:00-7:15	Coffee Break and pray
	Exercise: Design stand – alone system manually
7: 15-8:30	Exercise: Design stand – alone system using PV Syst