

Centre for Renewable Energy Sources and Saving-(CRES)



Description and scope

The Centre for Renewable Energy Sources and Saving (CRES) is the Greek national centre for Renewable Energy Sources (RES), Rational Use of Energy (RUE) and Energy Saving (ES). The Department of PV and Distributed Generation Systems of CRES is part of the Division of Renewable Energy Sources (RES-D)

Research Infrastructure(s)

EXPERIMENTAL MICROGRID

- Two PV units with single phase inverters
- Two battery storage systems with battery inverters
- One diesel generator
- Various controllable loads
- One desalination unit
- Load controllers
- One fuel cell unit with three phase inverter system
- One single phase electrolyser
- Interconnection to the public grid
- SCADA system with graphical user's interface



PV TESTING LABORATORY

- One class "A" solar simulator
- One portable IV curve tracer for PV power up to 100kW
- One Environmental Chamber of 5m³, with temperature control range from -40°C to 85°C



BATTERY TESTING LABORATORY

- Programmable charge-discharge power units ranging up to 300 VDC and 300A.
- High rate discharge tester 12V-1500A.
- Environmental chamber of 1m³ and the temperature between -20°C and +45°C.
- One temperature controlled water bath ranging between ambient and 40°C.



POWER ELECTRONICS LABORATORY

- One PV array simulator 0-400V and 0-25A
- Programmable load bank consisting 100 kVA ohmic and inductive loads,
- Programmable grid-simulator rated at 12kVA
- One high quality power-meter for the measurement of power of DC and AC circuits
- One portable power quality meter



Contact details

Address: 19th km Marathonos Ave. 19009, Pikermi Athens, Greece

Website: www.cres.gr

For Management/Organization Issues

For Technical issues

Dr. Stathis Tselepis
Tel. +30 210 6603369
Fax +30 210 6603318
E-mail: stselep@cres.gr



Dr. Evangelos Rikos
Tel. +30 210 6603368
Fax +30 210 6603318
E-mail: vrikos@cres.gr

