

New Task Definition Workshop

IEA SHC Task on New Generation Solar Cooling systems

Typological study of best configurations for PV cooling systems



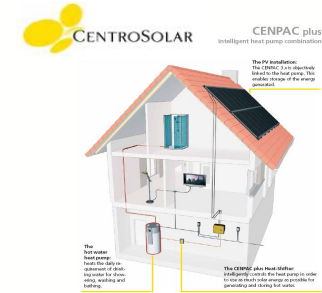
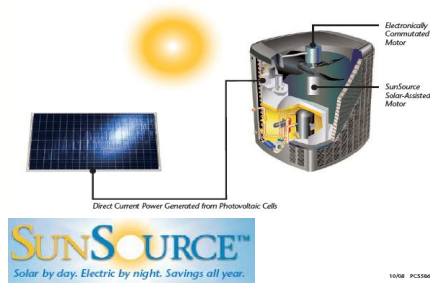
Daniel MUGNIER – Paris, 22/10/2013

Typological study of best configurations for PV cooling systems

- Study ongoing for ADEME
- Content :
 - State of the art of PV cooling systems
 - Framework conditions for selfconsumption (worldwide)
 - Target markets for the concept(s)
 - Economical approach for 3 promising configurations

State of the art of this new Market

(no claim for completeness)



Paket-Aktion*
Wärmepumpenpaket Vitocal 222-S
mit Photovoltaik



Heizen und Kühlen mit Solarstrom –
Eigenstromnutzung mit Split-Wärmepumpe Vitocal 222-S



Target markets for the concept(s)

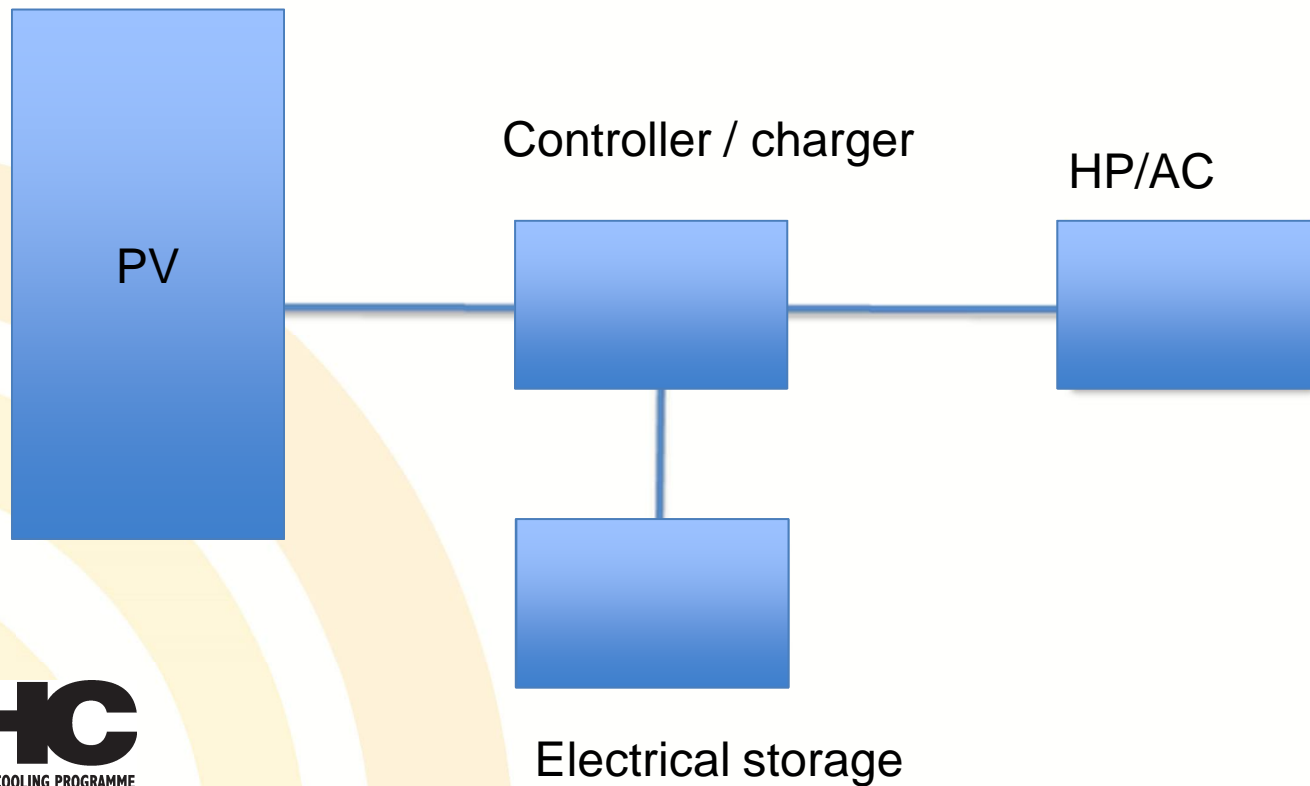
	Climatic context		Reglementary context		Economical context
	Solar Ressource	Adequation ressource/load	Local energy tariff	PV-friendly politics	Economical situation
Germany	Red	Red	Green	Green	Green
France (metropole)	Yellow	Green	Yellow	Red	Yellow
USA	Green	Green	Yellow	Green	Green
Guadeloupe	Green	Yellow	Yellow	Yellow	Yellow
Tahiti	Green	Green	Green	Red	Yellow
New Caledonia	Green	Yellow	Green	Yellow	Green
Saudi Arabia	Green	Green	Red	Yellow	Green
Morocco	Green	Yellow	Yellow	Red	Red
Tunisia	Green	Yellow	Yellow	Red	Red
Australia	Green	Green	Yellow	Green	Green
Italy	Green	Green	Green	Green	Yellow
Spain	Green	Green	Green	Green	Yellow

3 promising configurations

- « Low cost » configuration
- « Demand side management » configuration
- « Peak management » configuration

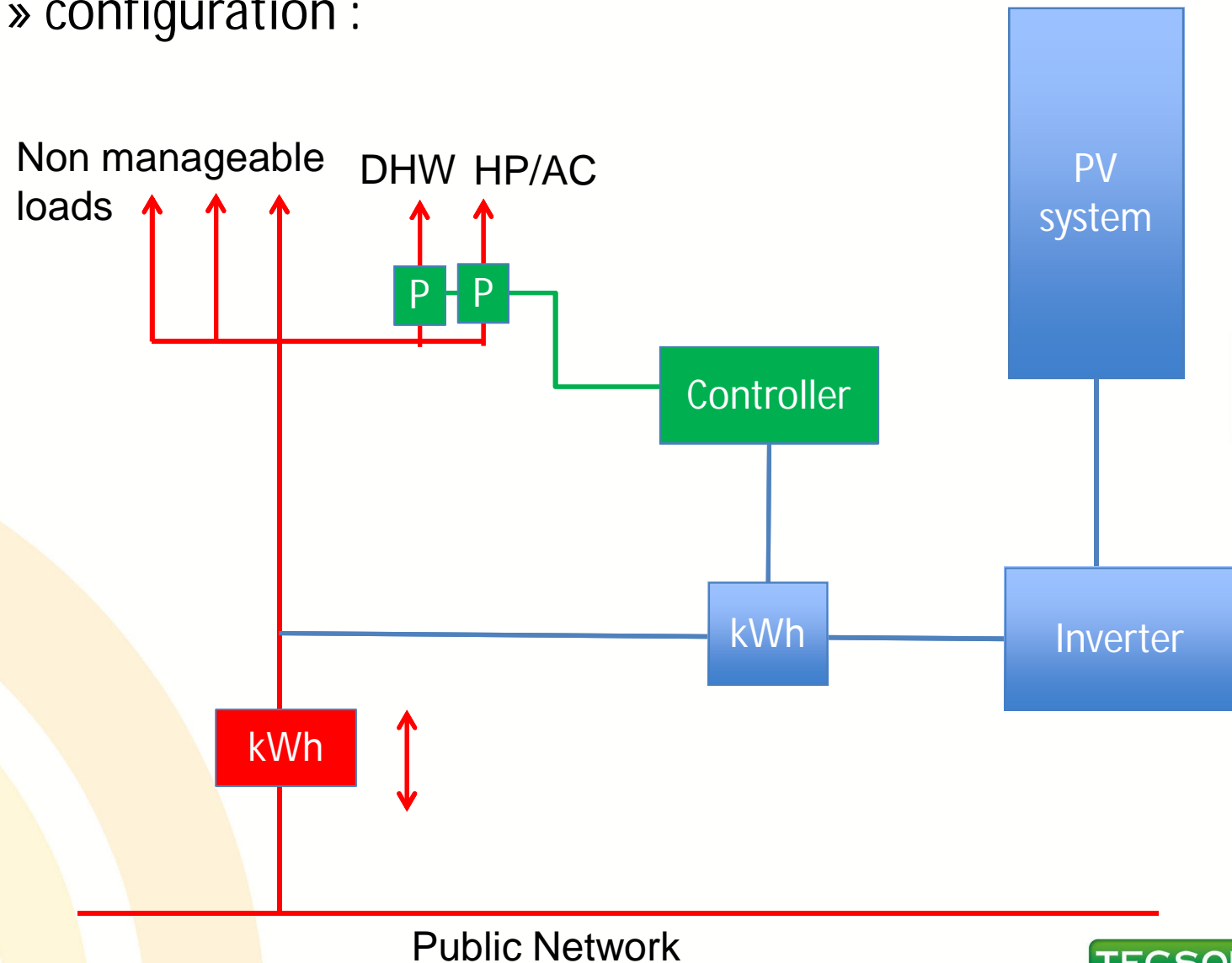
3 promising configurations

- « Low cost » configuration : remote areas, not grid



3 promising configurations

- « DMS » configuration :



3 promising configurations

- « Peak management » configuration :

