

Enjoy future energy !

## Off –Grid photovoltaic systems

Electrification of  
isolated sites



**AES**



## Autonomous photovoltaic installation

PV system consists of PV modules. These generators convert solar energy directly into electricity (DC).

One or more inverters convert the direct current produced by the panels to the alternating mains current (220 V, 50 Hz). According to the selected choice, part of the produced energy is consumed by the producer while the rest is injected into the public grid. When there is not enough power to supply needs, electricity is drawn from the grid.



### Components

An off-grid system is generally composed of the following elements :

- Solar panel generating a direct current.
- Batteries 12, 24, 48 V.
- Photovoltaic charge controllers.
- The inverter convert the DC power into AC ,230 V.

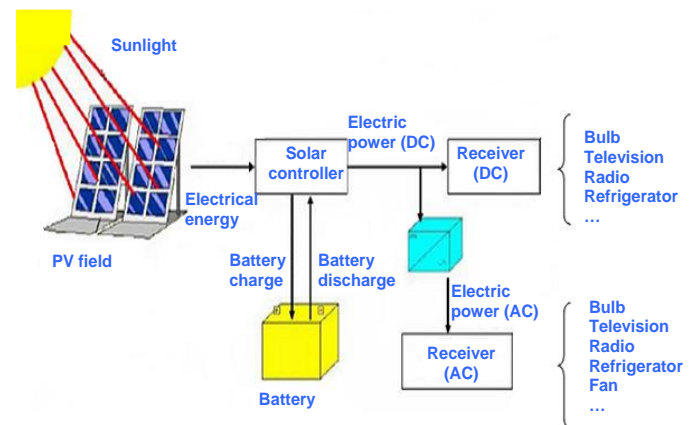


Diagram for off-grid system

## Applications

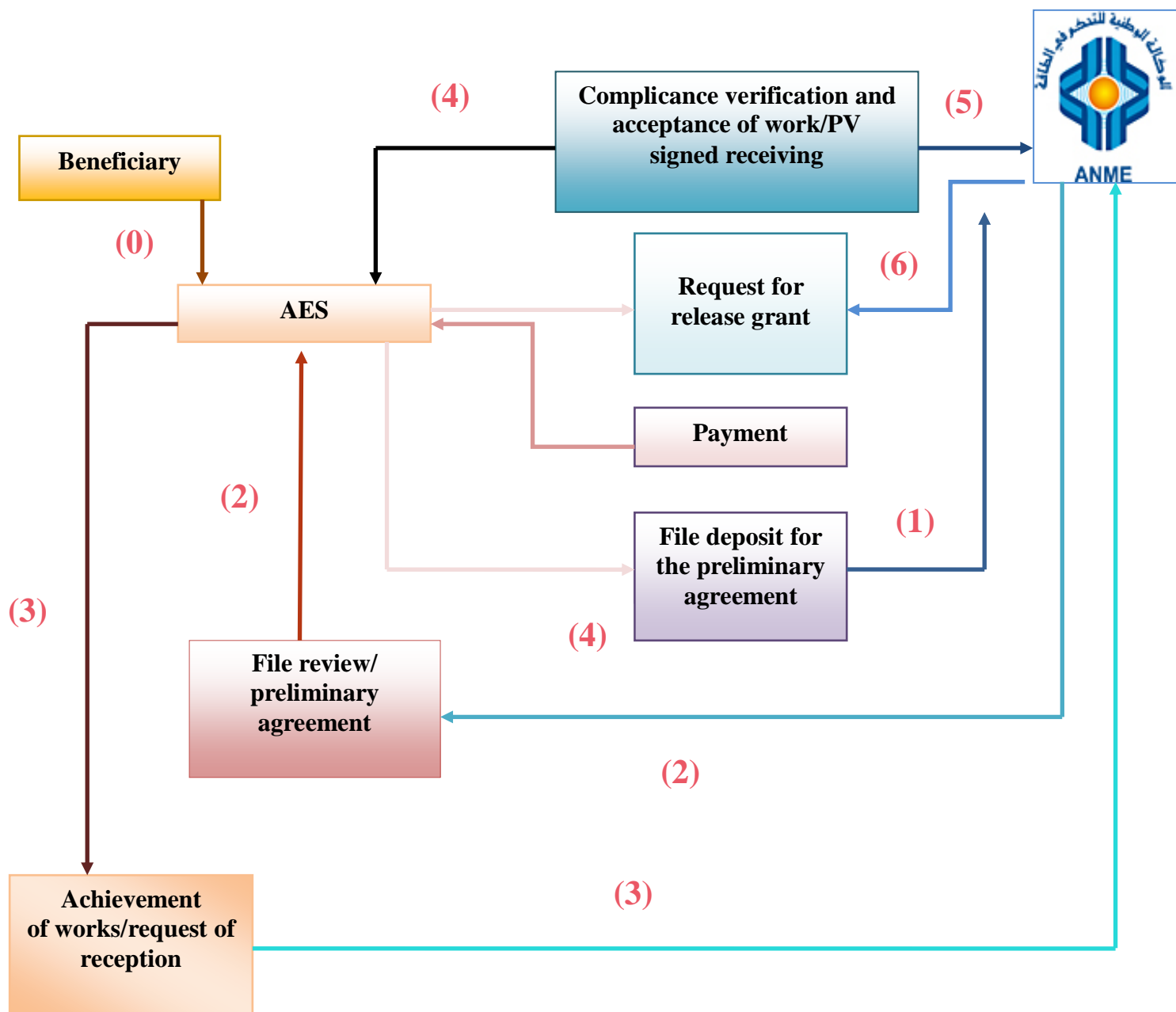
- *Off-grid electrification :*  
Primary and secondary residences, sheds, shelters, water sports, pumping station, reservoirs, weather station, radio relay...
- *Talk travel :*  
Motor home, caravan, mobile homes...
- *Road signs, airport and maritime self:*  
Plots et warning lights, spot lights, fog...
- *Systems for autonomous communities :*  
Bus shelters, street lighting, waste isolated
- *Backup power:*  
Camping, electric gates
- *Systems emergency :*  
Aid stations , mobile care unit, telecommunication...



## Financial incentive

A premium of 40 % of the investment cost, with a maximum of twenty thousand dinars (20 000 DT) is granted for lighting project and rural water pumping by solar energy for farms and rural projects.

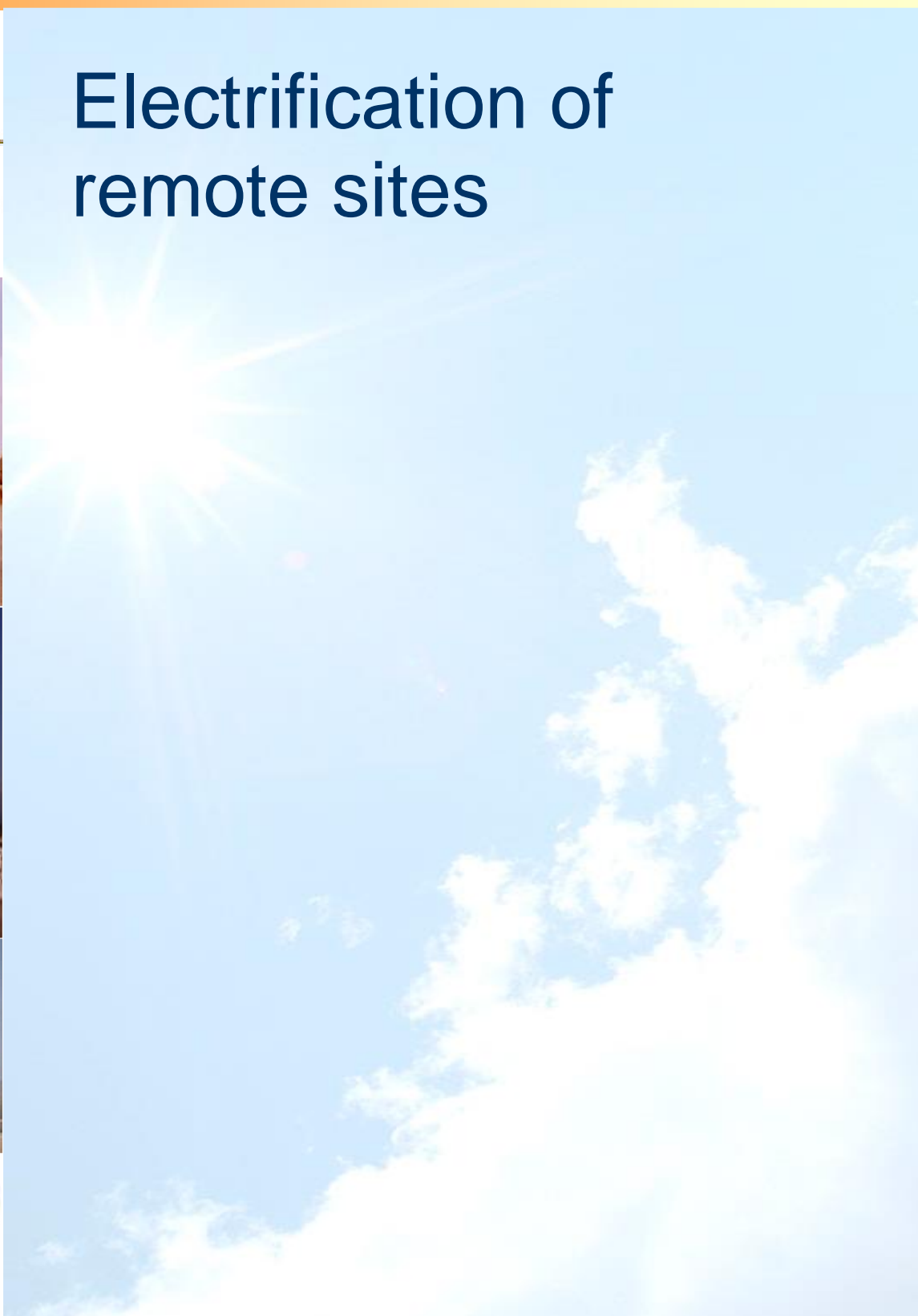
Joining process



# Autonomous photovoltaic systems



## Electrification of remote sites



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