



# Financing renewable energy in islands

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*développeur d'avenirs durables*

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# AFD at a glance

- French donor, created in 1941



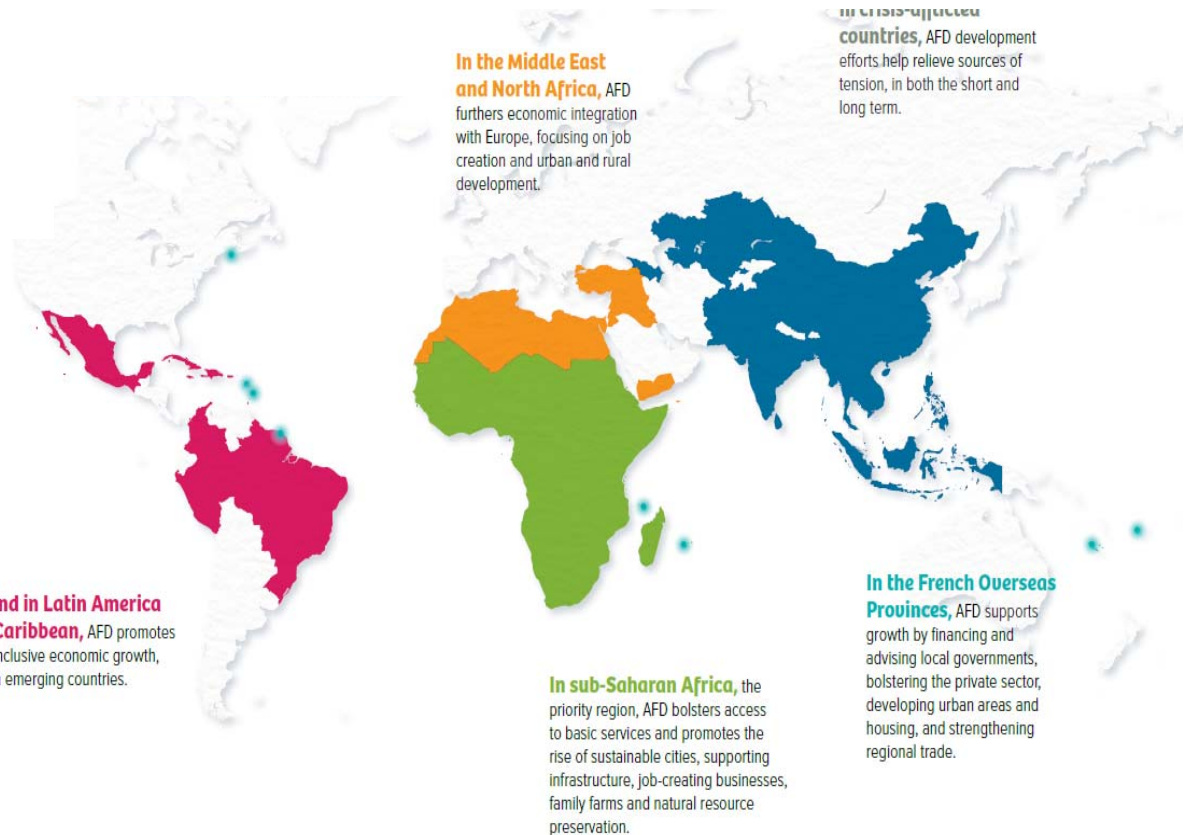
€ **7.8** billion  
of financing commitments

**71** offices  
around the world

more than  
**90** countries  
helped

**1,744** employees

développeur d'avenirs d



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## AFD in islands

States		
Atlantic	Pacific	Indian Ocean
Antigua et-Barbuda		Comores
Cap Vert		Indonésia
Dominique		Madagascar
Grenade		Maurice
Guinée-Bissau		Philippines
Saint-Christophe et-Niévès		Sri Lanka
Sainte-Lucie		Seychelles
Saint-Vincent et-les Grenadines		
Sao Tomé et-Principe		
Suriname		
French Overseas territories		
Atlantic	Pacific	Indian Ocean
Guadeloupe	Wallis et Futuna	Mayotte
Guyane	Nouvelle Calédonie	Réunion
Martinique	Polynésie française	
Saint Barthélémy		
Saint Martin		

Regarding foreign states, mainly active in Atlantic and Indian oceans

Long experience in French Overseas Territories (« French labs for renewable energy »)



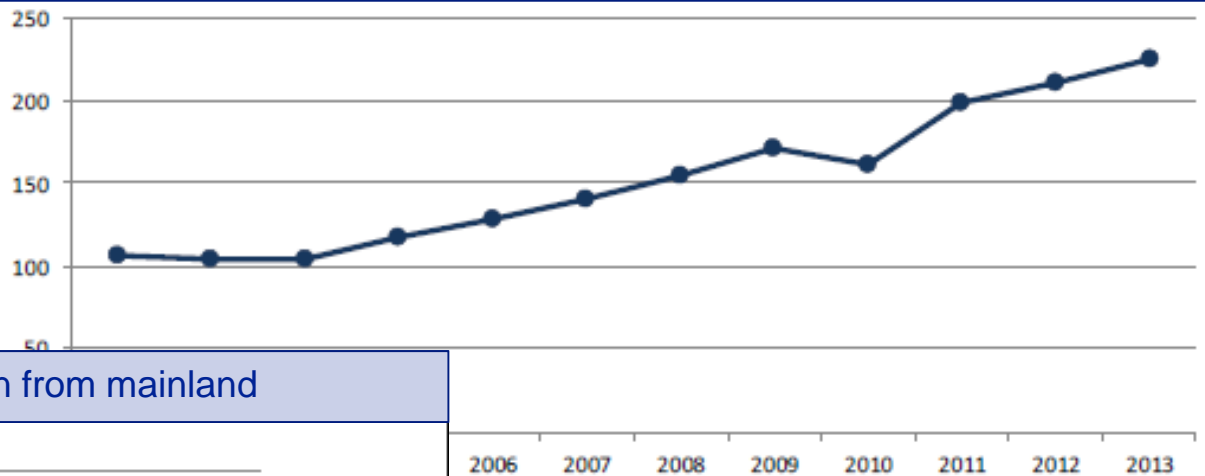
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## French Islands characteristics

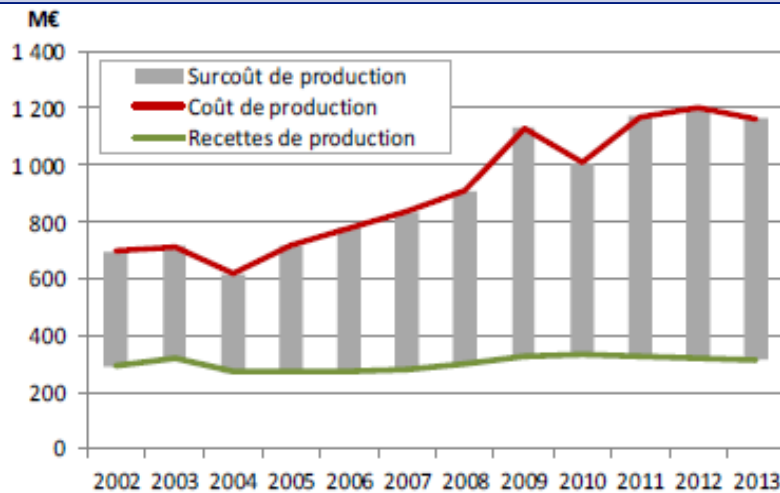
- Equalisation between mainland France and islands tariffs in order to ensure the same tariffs for all French citizens
- Increase of supply from fossil-based power generation to meet the demand

- Need to foster investments in renewable energy

Average cost of power production in French Islands (€/MWh)



Evolution of the compensation from mainland



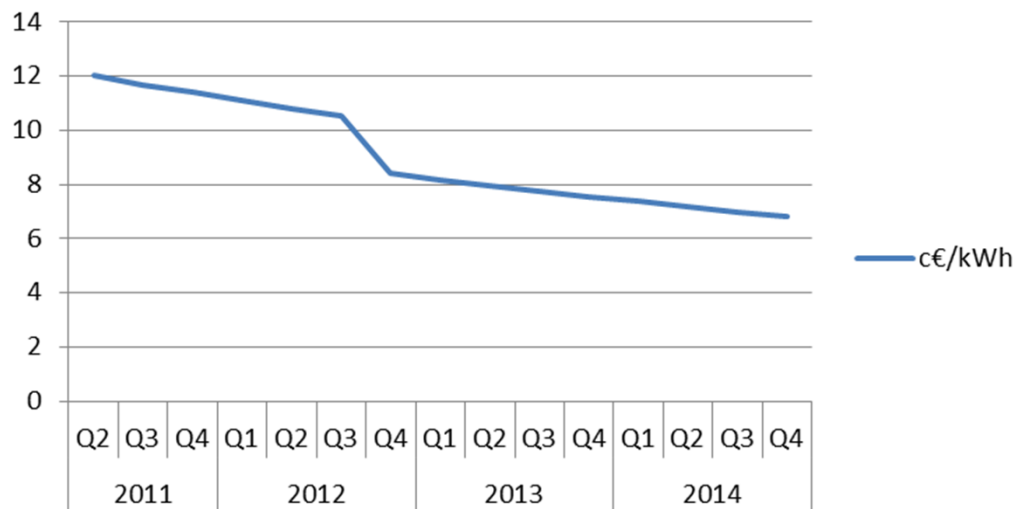
Source: Commission de Régulation de l'Énergie



## 4 Projects selection

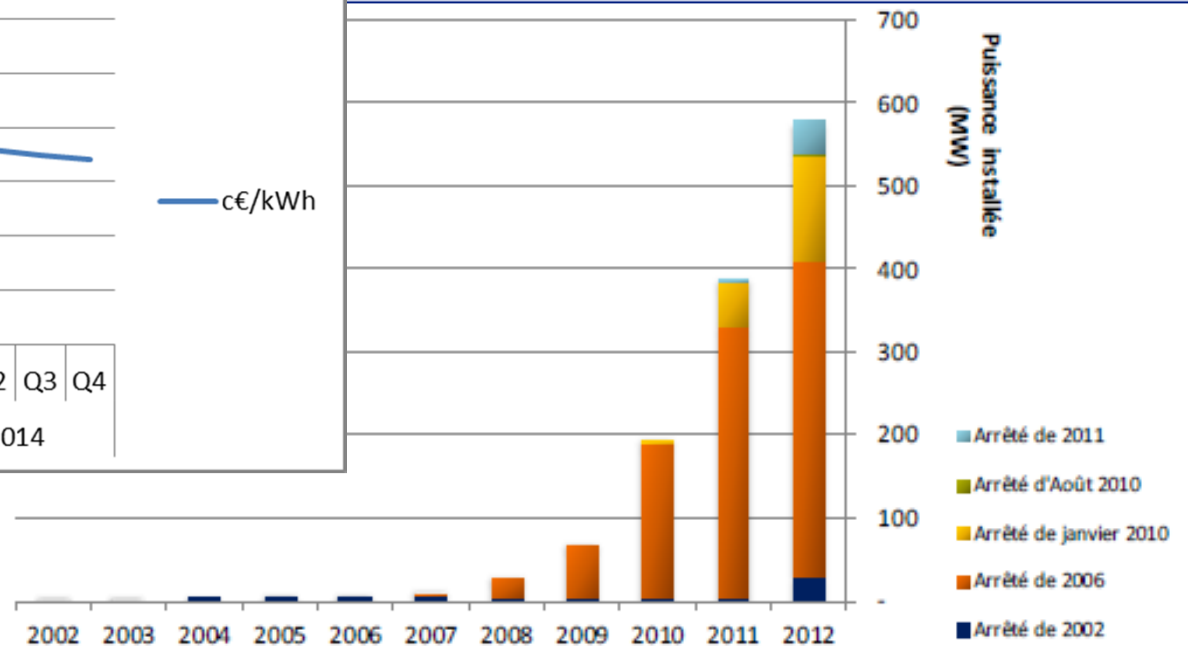
- First phase, implementation of a feed-in-tarif, equal to the one used in mainland

**Tarif evolution for PV (0-12 MW)**



Source: French Ministry of Sustainable Development and Energy

**Evolution of the PV installed capacity**



- In four islands (Corse, Réunion, Guadeloupe and Mayotte) the 30% threshold of intermittent power is reached

→ Need to select only projects with storage: call of projects launched in 2011 concluded to the selection of 17 projects of 59,5 MW with an average LCOE of 397,5 €/MWh

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## Projects financed by AFD

- AFD financed projects through loans from 1 to 10 M€ to SPV owned by the private sector: windfarms and PV power plants with or without storage
- Environment where available land is scarce, need to develop multi-usage schemes
  - Example of anticyclonic greenhouses PV power plants in la Réunion



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# Key take-away

- Small to medium size projects developed by the private sector allowed a rapid development of RE installed capacity
- A comprehensive PPA and a reliable off-taker is mandatory to attract the private sector and allow financial structuration through SPV schemes
- FIT is suitable for simple technologies, attract investments and developers but introduce difficulties to properly select the desired capacity to be installed and to reflect the up-to-date production costs.
- Reverse bidding would be a preferable option in an existing competitive environment (South Africa and India moved from FIT to reverse bidding when the market was considered mature)
- Call for projects is recommendable for technically innovative projects
- Introduction of net-metering may ease the development of decentralized units (Sri Lanka, Dominican Republic)
- Development of smart grids is compulsory to reach high RE integration rates