



Conference

***"New rising era for photovoltaic integration in buildings"***

**Legal frameworks promoting BIVP : the French case**

Brussels 2 February 2007 - Marc Jedliczka - Hespul



# BIPV, a strategic choice for the French PV Community



*As approved through the National Position Paper and Action Plan from the 'PV-Policy-Group' Altener program*

- To promote PV as a ***building component*** producing electricity
- To help hitting the '***Energy+ Building***' concept
- To ***accelerate PV competitiveness*** through
  - Multifunctional uses
  - Grid losses savings
  - Integration as an architectonic component
- To make the building Industry ***prime contractor*** to the PV Industry



# The new feed-in-tariff



- **In force since July 06** (arrêté du 10 juillet 2006)
- **Base = 0.30 €/kWh (0.40 Oversea & Corsica)**
- **BIPV Premium = 0.25 €/kWh (0.15 O&C)**
- **20 years contract, inflation compensated**
- **No annual decrease for new contracts**  
(previously 5%)
- **No cap** (indicative objective 2010 = 160 MWp)



# Other incentives



- **50% tax credit on hardware for individuals**  
(max. 8 k€/family, competition with other domestic RES)
- **Accelerated depreciation for corporates**  
(subject to annual renewal, OK for 2007)
- **Local investment subsidies** (up to 30% of costs)  
(depending on regional Governments)
- **ADEME complementary support** (up to 1€/Wp)  
(based on bids at Regional level, limited budget)
- **Building performance regulation (RT 2005)**  
(PV to be included as of 2010)
- **Ground occupancy ratio bonus (building densification)**  
(need to be promoted toward local Authorities)



# The French definition of « BIPV » (legal)



Eligible applications as listed in the *Tariff Order* :

- *Roofs, slates or tiles manufactured by the Industry, with or without support (1)*
- *Sun protection*
- *Window apron*
- *Glazed roof without back protection*
- *Window, terrace or balcony balustrade*
- *Cladding, curtain wall*

*(1) to be detailed in a still-expected administrative memo*



# Administrative procedure



- **To declare any grid-connected PV plant**  
=> **Ministry for Industry (MINEFI)**
- **To apply for '*purchase obligation certificate*'**  
=> **Ministry of Industry Regional Office (DRIRE), who will decide the BIPV premium (no eligible products/solutions list)**
- **To apply for building permit/declaration**  
=> **Municipality**
- **To apply for grid-connection contract** (50 pages)  
=> **Low-voltage grid operator (generally EDF-ARD)**
- **To apply for purchase contract** (20 pages)  
=> **Binded purchaser (generally EDF-AOA)**



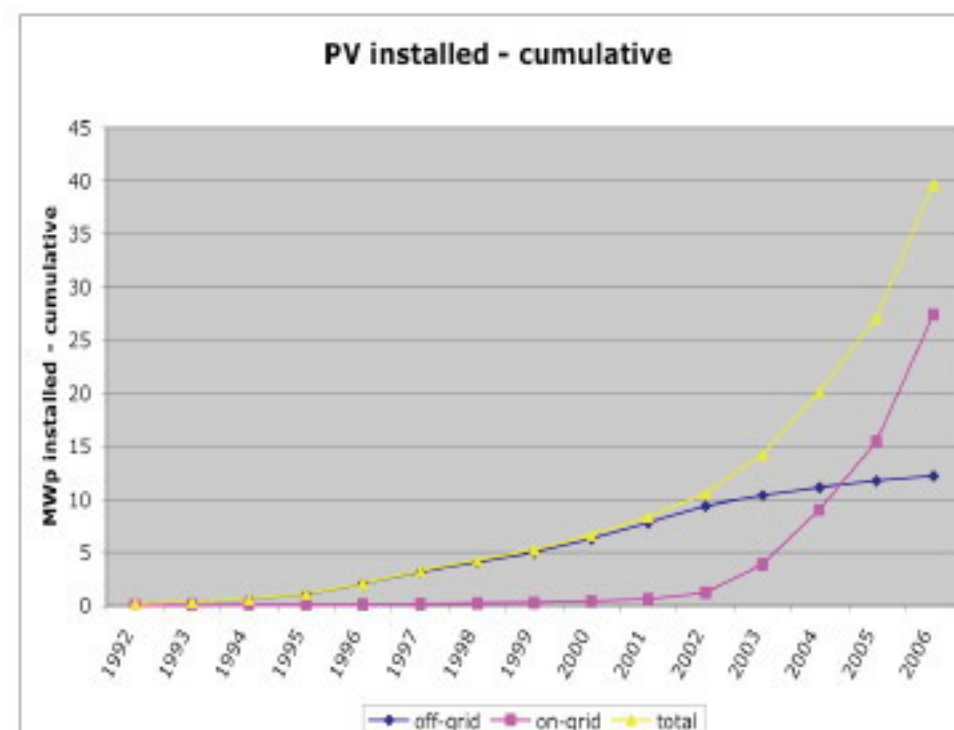
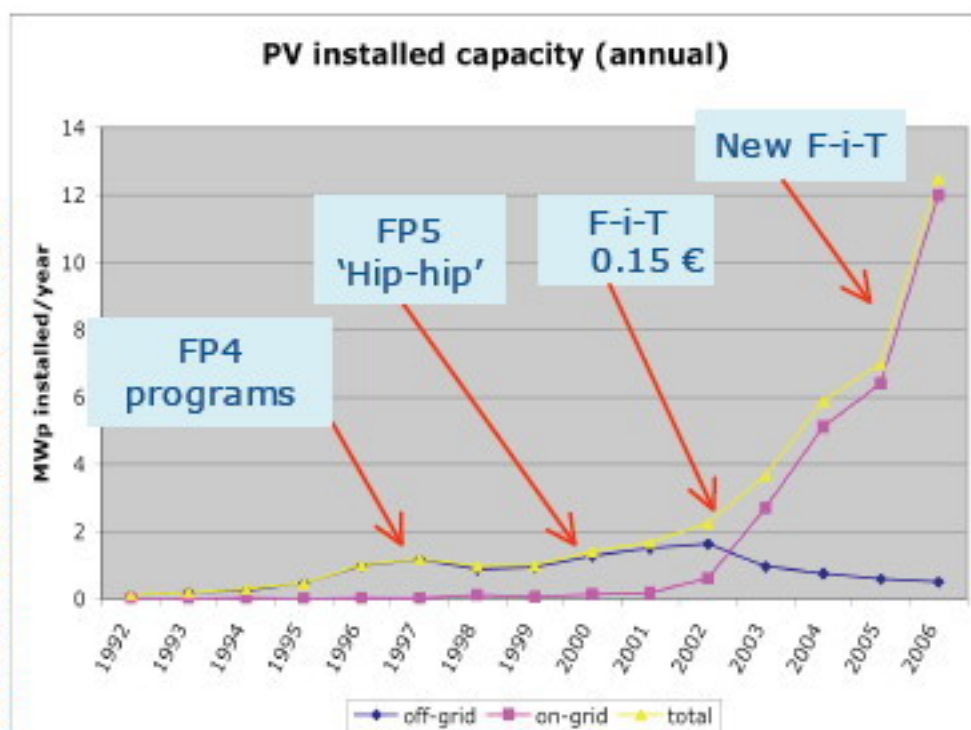
# Main remaining uncertainties/problems



- **Heritage protected areas** (the '500m' rule)
- **Administrative proceeding length** (simplification needed)
- **Investment-based tax regime** (« professional tax »)
- **Grid-connection regulation** (36-250 kVA not clear yet)
- **Building standards compliance** (TÜV vs. CSTB)
- **Works insurance regime** ('decennial guarantee')
- **Lack of trained/qualified staff**



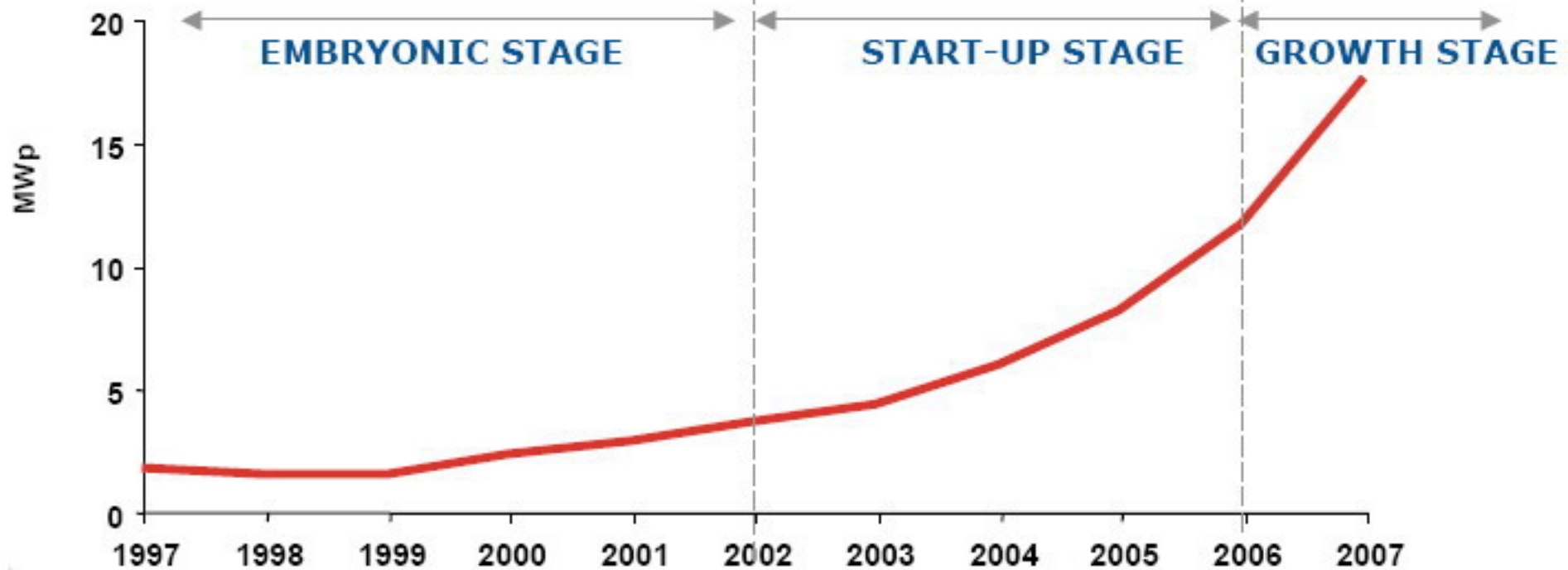
# French PV market 1992-2006



# Expected expansion: $\approx 30\% / \text{year}$



Annual newly installed PV capacity in France



Net metering contract  
30 december 1999

Arrêté du 13 mars 2002

Arrêté du 10 juillet 2006

Stand alone systems +  
E-funded demonstration projects

Small to medium grid-connected systems  
ADEME and Regional Council grants

Mass market

Source: ADEME for 1997-2005 figures and Hespul for 2006 & 2007 estimated figures



# Samples of BIPV in France 1



# Samples of BIPV in France 2



Window apron



Glazed roof



Sun protection



# Samples of BIPV in France 3



**Cladding**



ENERGIES RENOUVELABLES ET EFFICACITE ENERGETIQUE





**Thank you for your attention !**



## **HESPUL**

**114, boulevard du 11 novembre**

**F-69100 Villeurbanne**

**Tel : +33 4 37 47 80 90**

**Fax : +33 4 37 47 80 99**

**info@hespul.org**

**www.hespul.org**

