Ex-post evaluation of the french white certificates schemes in France

Didier Bosseboeuf (ADEME France); Berlin 16th December 2019
Some elements for the ex-post evaluation

- An evaluation with many targets (actors request, Interest for the next period of obligation etc.)
- Large implication and complementarity between the ministry and ADEME
- Good mobilisation and collaboration of professionals benificiating from the scheme
- A good avaibility of statistical material (Balance, surveys, visits)

- Evaluation until 2018
- Response rate of the online survey rather weak (Excepted households)
- Limited number of visits in services and industries sectors
- Evaluation of energy savings limited to informations coming from visits.
Main features of the evaluation: a scheme very concentrated

- Less than de 10% of the requests concern more than 90% of the volumes of obligations.

- 70 beneficiaries concentrates more than 10% of the production.

- Half of the operations are realised based on 10 standarsised operations (deemed savings), 2/3 on 20 operations.
Main features of the evaluation
Obligations dedicated to fuel poverty is increasing

Since 2016 a share of obligations should be realised towards fuel poverty households. As the results 60% of the volumes of obligations have dedicated to Fuel poverty).

This is due to a better valorisation of this type of obligations compared to the classic ones.
Main features of the evaluation: The beneficiaries

More than 1.5 million beneficiaries since 2011

Each year, 96% of beneficiaries are new

<table>
<thead>
<tr>
<th>Sector</th>
<th>« small » beneficiaries</th>
<th>« Large multi-beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>% volumes CEE du secteur</td>
</tr>
<tr>
<td>Households</td>
<td>1 448 317</td>
<td>84%</td>
</tr>
<tr>
<td>Transport</td>
<td>23 964</td>
<td>96%</td>
</tr>
<tr>
<td>Services</td>
<td>21 437</td>
<td>94%</td>
</tr>
<tr>
<td>Industry</td>
<td>3 932</td>
<td>97%</td>
</tr>
<tr>
<td>Distric heating</td>
<td>2 153</td>
<td>94%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>1 242</td>
<td>100%</td>
</tr>
<tr>
<td>Program</td>
<td>464</td>
<td>67%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>100%</td>
</tr>
</tbody>
</table>

Un « grand multi-bénéficiaire » est un bénéficiaire ayant totalisé plus de 500 GWh\textsuperscript{cumac} en plus de 4 opérations (liens Emmy).
General statistics on beneficiaries point of view: Which operation?

Nombre total de réponses : 2 866
What type of subsidies have been made?

What kind of Aid did you get?

- Subsidies: 78%
- Reduction on proposal: 13%
- Purchase ticket: 8%

Is the chosen option was on a voluntarie basis?

- Individuals: 50%
- Social housing: 75%
- Industry: 43%
- Services: 73%
Beneficiaries satisfaction and energy savings

« Are you satisfied about the quality of EE works? »

- Households: 91%
  - 11% 0–5%
  - 21% 5–10%
  - 41% 10–25%
  - 22% >25%
  - 5% Non

- Social housing: 98%
  - 6% 0–5%
  - 25% 5–10%
  - 50% 10–25%
  - 19% >25%
  - 0% Non

- Industry: 99%
  - 26% 0–5%
  - 24% 5–10%
  - 35% 10–25%
  - 15% >25%
  - 0% Non

- Services: 97%
  - 25% 0–5%
  - 38% 5–10%
  - 21% 10–25%
  - 13% >25%
  - 3% Non

Do you think that your works have delivered EE?

- Households: 11% 0–5%
- Social housing: 6% 0–5%
- Industry: 26% 0–5%
- Services: 25% 0–5%
Impact of the subsidies to engage works

- **Triggering effect**
  - Particuliers: 51%
  - Bailleurs sociaux: 75%
  - Industrie: 71%
  - Tertiaire: 53%
  - Ensemble: 55%

- **Free rider effect**
  - Particuliers: 21%
  - Bailleurs sociaux: 2%
  - Industrie: 5%
  - Tertiaire: 11%
  - Ensemble: 12%

**Certain**: uniquement réponses « Non, pas du tout »  
**Incertain**: Certain + réponses « Non, pas vraiment »  

En pondérant selon le poids des secteurs

- Certaines questions : l’aide a-t-elle permis de faire :  
  - des travaux de meilleure qualité ?  
  - des travaux plus importants ?  
  - des travaux que vous n’auriez pas pu faire autrement ?
Impact of the subsidies to engage works for individuals

Share of respondents having subsidies
- Tax credit: 82%
- Subsidies (ANAH): 3%
- Local Subsidies: 7%
- Reduced VAT: 31%

Aids
- Tax credit
  - No effect: 1
  - Very important: 4.02
  - Number of answers: 996
- Subsidies (ANAH)
  - No effect: 2
  - Very important: 3.96
  - Number of answers: 28
- Local Subsidies
  - No effect: 3
  - Very important: 3.82
  - Number of answers: 92
- Reduced VAT
  - No effect: 4
  - Very important: 3.78
  - Number of answers: 414

Obligation
- Réduction
  - No effect: 5
  - Very important: 3.85
  - Number of answers: 1,062
- Prime financière
  - No effect: 6
  - Very important: 3.21
  - Number of answers: 233
- Bon d'achat
  - No effect: 7
  - Very important: 2.69
  - Number of answers: 79

Nombre total de répondants uniques : 1 488
How did you know the scheme?

Did you know the obligation scheme before?

- Individuals: 60% (Non: 40%)
- Social housing: 94% (Non: 6%)
- Industry: 87% (Non: 13%)
- Services: 87% (Non: 13%)

How did you know it?

- 41% Awareness campaign
- 20% By hearing
- 19% Internet
- 41% Installer
- 19% ESCO's
- 24% municipality
### Impacts of energy efficiency works

#### Households

- **Le logement est plus chaud (ou frais en été)**: 76%
- **L'isolation phonique est meilleure**: 19%
- **Le logement est moins humide**: 18%
- **J'ai augmenté mon pouvoir d'achat**: 12%
- **Aucun**: 11%
- **La qualité de l'air est meilleure**: 9%
- **Je chauffe une plus grande surface**: 8%
- **Je chauffe plus longtemps**: 4%
- **Je ne sais pas car je ne l'occupe pas**: 1%

#### Industry

- **La qualité de process industriel s'est améliorée**: 30%
- **Le confort des collaborateurs s'est amélioré**: 21%
- **Non**: 15%
- **Mon site industriel est mieux chauffé**: 12%
- **La productivité de mon site a augmenté**: 11%
- **La qualité de l'air au sein de mon site est meilleure**: 3%
Some quantitative results : The beneficiaries

Since 2011, the WC scheme has pushed the installation of :

- 1 million of individual boilers and the replacement of collective boilers for 400 000 flats;
- 480 000 wood boilers;
- 116 000 heat pumps;
- 260 000 m² of captors for solar water heaters in french tropical islands (around 50 000 logements);
- 45 millions of insulated m² (around 300 000 dwellings for cave and roof and walls);
- More than 3 millions of double or triple glazings windows;
- 6 millions of LED labelled A+;
Some quantitative results

- 3 Billion € per year of activity linked to obligations compared to an annual market for refurbishment of 22 Billion € in housing
- Half of public subsidies dedicated to refurbishment come from obligations
- A very concentrated scheme with 10 % of beneficiaries which generate 90 % of the volumes of obligations
- 1,5 million of beneficiaries since depuis 2011 of which : 1 municipalitity against 8, 1 househod against 20, and 1 industrial site against 60.
- High level of satisfaction of the energy efficiency works. Only floor insulation has bad performances of satisfaction. Confort improvement for 75% of the households
- 3 000 job/years directly created or maintained, 17 000 jobs/year indirectly.
## Recommendations (1/3)

<table>
<thead>
<tr>
<th>R1</th>
<th>Make compulsory the energy consumption of industrial and agricultural companies, other than fuels (already submitted)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2</td>
<td>Do not modify the main application methods (standardized operation sheets and bonuses) during each obligation period</td>
</tr>
<tr>
<td>R6</td>
<td>Improve the synergies between CEE funding, Action Logement funding (PIV) and public funding (ANAH, local authorities) to accelerate energy renovation actions in the private housing stock.</td>
</tr>
<tr>
<td><strong>R7</strong></td>
<td><strong>To simplify the administrative burden</strong></td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td><strong>R8</strong></td>
<td>For individual beneficiaries, systematically send a paper questionnaire after the issuance of Certificates</td>
</tr>
<tr>
<td><strong>R9</strong></td>
<td>Limit the financial windfall that the system can represent, particularly in the industrial sector</td>
</tr>
<tr>
<td><strong>R10</strong></td>
<td>Evaluate periodically the real savings generated by the main files in order to correct, if necessary, the method of calculating packages</td>
</tr>
<tr>
<td><strong>R12</strong></td>
<td>Reorienting part of the system on lessor owners through better information</td>
</tr>
</tbody>
</table>
Recommandations (3/3)

R13
Study an increase in the share of the "fuel poverty" obligation for the fifth period

R14
Reorienting part of the system on landlord lessors through better information

R15
Stimulate specific operations in the industry by providing guarantees to manufacturers and applicants

R16
Fight against fraud and non-quality within the system