



European Union 22-26 March 2010
Sustainable Energy Week

Take a week to change tomorrow

French experience in Modernising Heating Systems & Renovating Buildings

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European
Partners for the
Environment

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French experience in Modernising Heating Systems & Renovating Buildings

	2000		2007	
	Number	%	Number	%
Heating oil	4.5	21.0	4.5	17.4
LPG	0.6	2.9	0.7	2.6
Natural Gas	8.5	39.8	10.9	43.3
Electricity	6.3	29.5	7.8	31.2
Wood	-	-	0.2	0.9
TOTAL	21.4	100	25.2	100

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Grenelle Targets

- Energy saving in the heating market in 2020 – 38 % vs 2006
- Renewable energy is counted as energy saving
- Energy consumption in 2020
 - Average 150 kWh Primary Energy / m²
- Developing “BBC” (low energy consumption) label for existing buildings : 80kWh Primary Energy /m²
- “BBC” label for new buildings: 50kWh Primary Energy /m²
- Plus – for new buildings only – a CO2 limit (5 – 8 kg/CO2/m²)
- This CO2 limit (new buildings) translates to c. 200 – 300 litres heating oil / house per year



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The Grenelle plan - The CEE (Energy-saving Certificates)

- First period 1/07/2006 – 30/06/2009
 - Target for oil heating sector 6.8 TWh
 - Target for Ecofioul 5.4 TWh
 - Realization by Ecofioul 8.5 TWh
 - A large part has been achieved by replacing old boilers with condensing boilers
 - Penalty if target not reached: 0.02 €/kWh, or total 136 millions Euros
- The second period beginning probably at the end of this year
 - Target: will be 3x more savings
 - Obligation for gasoline and diesel





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Energy-saving Certificates Data Ecofioul Achievements: 2006-9

- 1600 Ecofioul participants during First period 1/07/2006 – 30/06/2009
- 18 000 fitters, heating engineers, & heating oil distributor partners
- Over 165 000 files handled since 2006
- Budget created by Ecofioul members, and handled by Ecofioul as “arms’ length company” 2006-9 is c. € 77 million
- Ecofioul realised 8.5 TWh savings, compared to target set of 5.4 TWh



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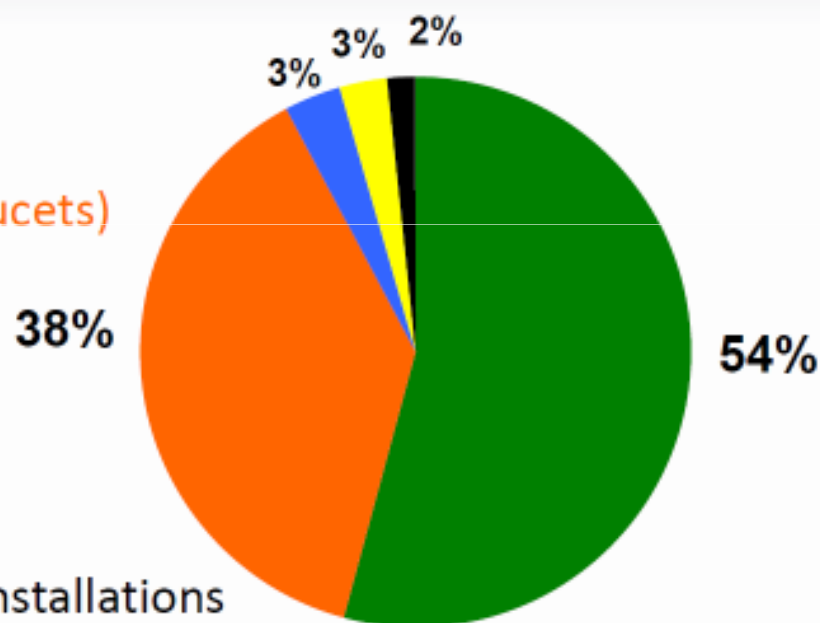


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Ecofioul Achievements: 2006-9

Standard actions typology

- ✓ 90 000 heaters
- ✓ 63 300 regulations (time switches, probes, faucets)
- ✓ 5 300 insulations
- ✓ 4 600 solar boilers
- ✓ 3 000 wood + heating oil installations



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The Grenelle plan - Tax Credit 2010

	Existing	New
Condensing boilers	15 %	-
Solar thermal energy	50 %	50 %
Heat pumps (air/water)	25 %	25 %
Wood stoves	25 %	25 %
Insulation		
- Windows	15 %	15 %
- Walls	25 %	25 %
-VAT (normal rate 19.6%)	5.5%	5.5%



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The Grenelle plan – 0% interest loans

- Two types of modernization actions: € 20 000
- Three separate modernization actions: € 30 000

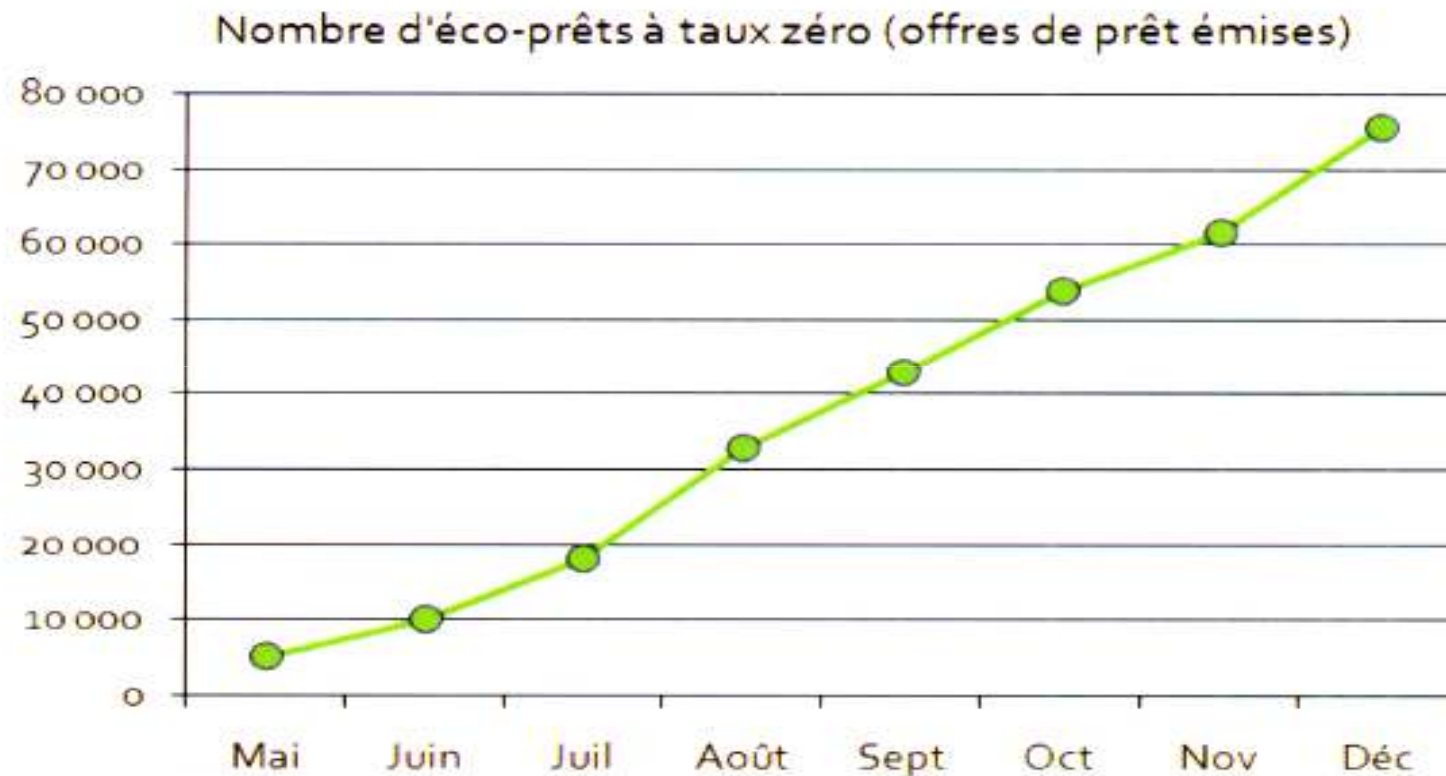


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The 0% interest loans Number of loans issued- status end 2009












Source : SGFGAS



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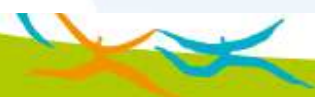
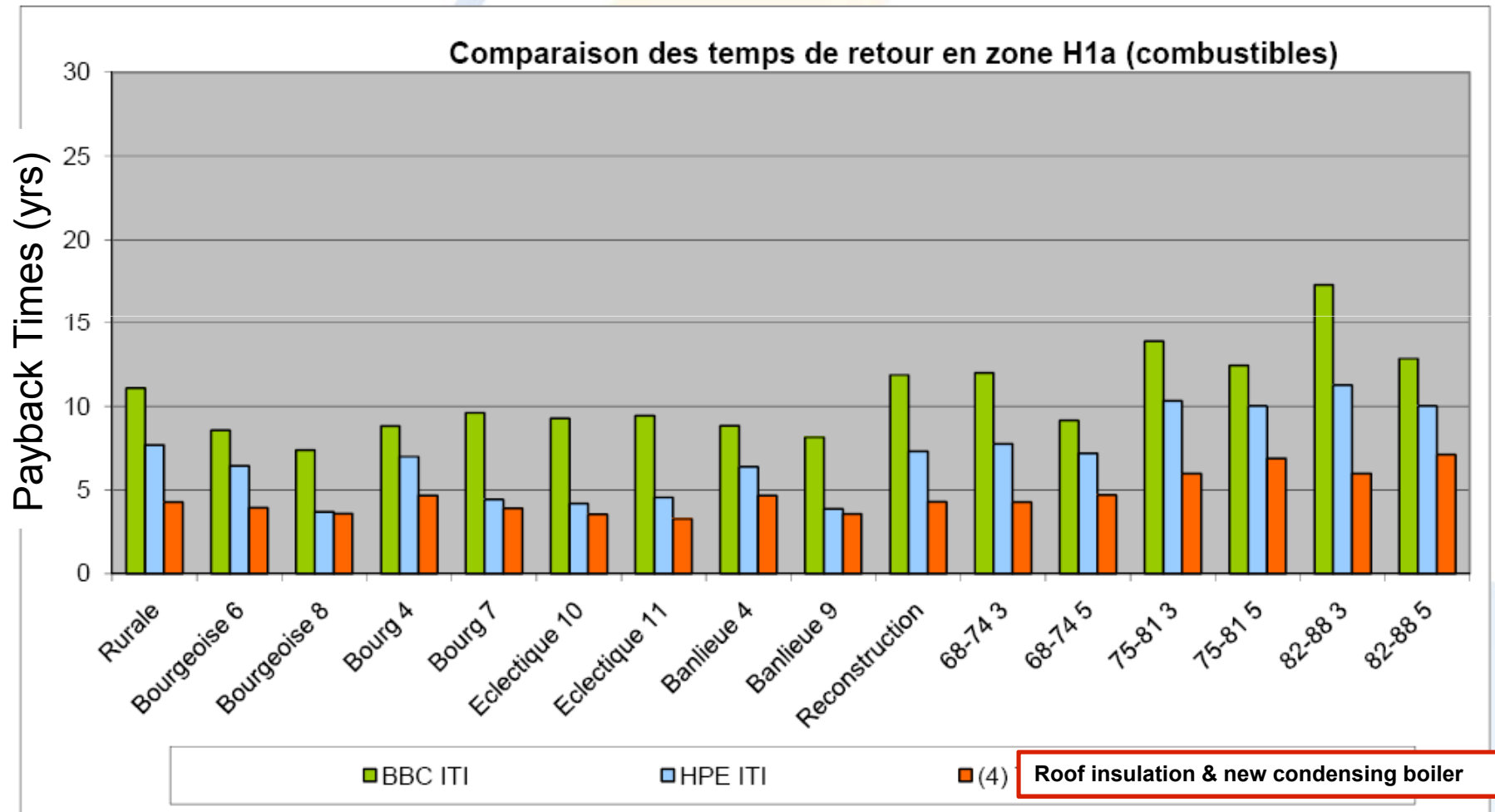
Study : Renovation - Energy & Houses

Typologies de l'étude MI : dates de construction, aspect et population - % du parc de MI					
MIRURALE 	< 1915	1.2 million 8%	PAVILLON DE LA RECONSTRUCTION 	1949-1967	396 000 3%
MIBOURGEOISE 	< 1915	184 000 1%			
MIDÉBOURG 	< 1915	1.8 million 12%	PAVILLON 68-74 TRADITIONNEL 	1968-1974	1.2 million 8%
VILLA ECLECTIQUE 	< 1948	642 000 4%	PAVILLON 74-82 PREFABRIQUE 	1975-1981	901 000 6%
PAVILLON DE BANLIEUE 	< 1967	3.3 millions 22%	PAVILLON 82-88 	1982-1988	1.9 millions 12%

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Study : Renovation - Energy & Houses

Payback Comparison – Renovation Actions



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BATIMENT BASSE CONSOMMATION Réhabilitation/Construction

Rénovation d'un pavillon des années 60

Une maison qui satisfait aux critères d'un Bâtiment Basse Consommation (BBC) : énergies renouvelables et fioul domestique, dépenses énergétiques limitées, isolation renforcée et utilisation de matériaux «écologiques».

OBJECTIFS DU GRENELLE DE L'ENVIRONNEMENT ATTEINTS !

Résultats de l'étude thermique :

Selon étude (réglementation 2005) en énergie primaire par m² et par an (kWhep/m².an)

Energie



UNE RÉALISATION
EXEMPLAIRE
À BESANÇON



EQUIPEMENTS DE LA MAISON

- ▶ **Chauffage** : chaudière fioul domestique basse température + poêle à bois (dans le séjour)
- ▶ **Eau chaude sanitaire** : chaudière fioul domestique et panneaux solaires thermiques (6,5 m²)
- ▶ **Ventilation** : VMC simple flux hydroréglable de type B avec préchauffage de l'air entrant par la véranda.

MATÉRIAUX DE CONSTRUCTION

- ▶ Fibre végétale (laine de bois)
- ▶ Véranda bioclimatique

INTERVENANTS

- ▶ **Maître d'œuvre** : Atelier Carré (Doubs)
- ▶ **Bureau d'étude thermique** : Critère (Doubs)
- ▶ **Informations** : Espace Info Energie du Doubs CAUE (03 81 82 04 33)

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SUSTAINABLE ENERGY EUROPE

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Heating oil and solar coupling



Heating oil and wood coupling



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Alliance des Métiers

Mettons notre énergie en commun



**L'Alliance
des métiers**

L'Alliance des métiers marque une nouvelle dynamique des métiers concernés par l'efficacité énergétique des logements utilisant l'énergie fioul et les solutions hybrides associant les énergies renouvelables.
Pour un vrai partenariat de proximité au service du client, rejoignez l'Alliance des métiers.

Membres :      

Partenaires associés :   

Sous l'égide de : 

Décembre 2009



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Conclusions

- To achieve the “Alliance des Métiers” plan it is necessary to involve many participants:
 - Heating oil producers
 - Heating oil distributors
 - Equipment manufacturers (oil, heat pumps, solar thermal, wood)
 - Insulation industry
 - Craftsmen (all specialties)

