

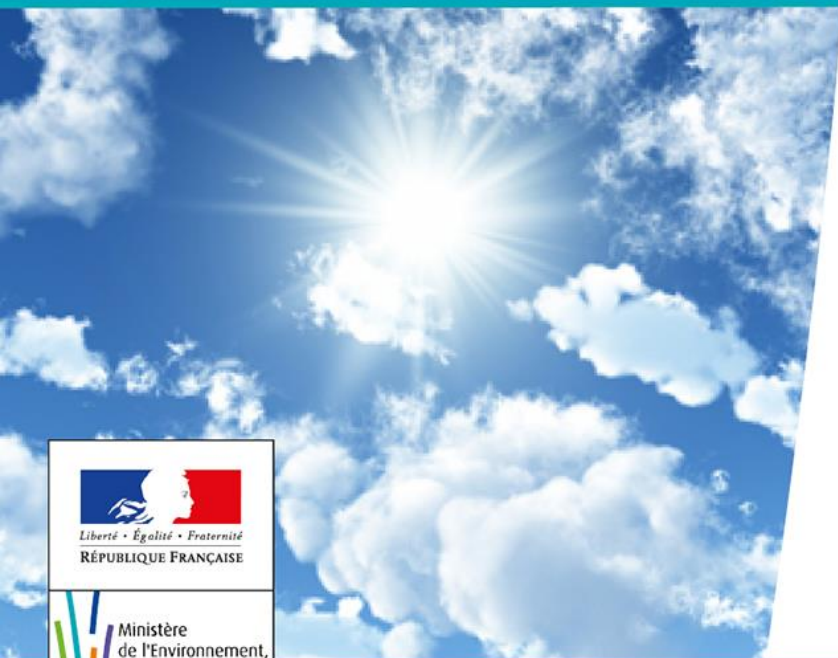
« Biomass 2016 » tender

Gérard DENOYER

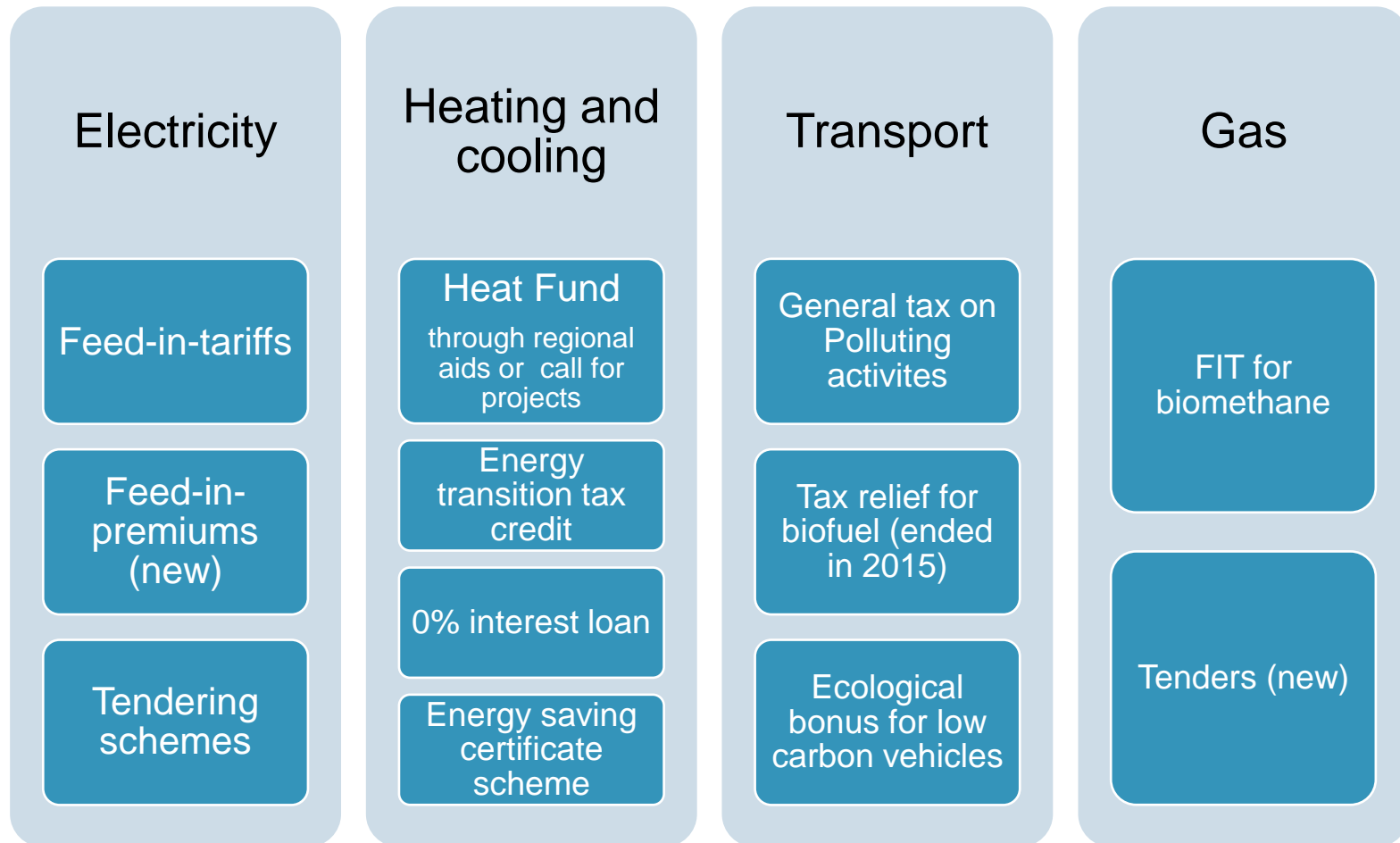
Renewable Energy Office

**Ministry of Environment,
Energy and the Sea**

October 13th 2016



RES support mechanisms for each sector



Support for innovation through several calls for projects addressing different levels of maturity

Regulatory measures for new buildings :

- set energy efficiency standards (<50 kWh/m²/year)
- impose that 5 kWh/m²/year are produced from RES

Support mechanisms for electricity

Small installations (<1MW) :

Direct contracting

- Contract with compelled operators
- Reference price set for each eligible technology

< 500 kW

Feed-in-tariffs
(exist since 2000s)

> 500 kW

Feed-in-premiums : market price + premium
since 2016

Medium to large scale installations (> 1MW except PV and small hydro) :

Tender procedures

- Pay-as-bid mechanism
- Selection mainly price-based + other criteria (environmental criteria, for example)
- **Can be launched as long as the targets are not met**

< 500 kW

Feed-in-tariffs
(exists since 2003)

> 500 kW

Feed-in-premiums
since 2016

Support mechanisms

- **Tenders** are especially appropriate for renewable categories with one of the following characteristics :
 - **Information asymmetry** regarding the cost of a given technology (ex : PV)
 - **Management of conflicts** over the use of land and resources (ex : high-capacity biomass)
 - **Scarcity of available areas** (ex : offshore wind)

- **Direct contracting** is better suited for :
 - **Small-scale installations** (ex : residential PV, biogas)
 - Mature sectors for which the **costs are relatively well known and stable** (ex : onshore wind)
 - For sectors with **numerous potential development sites** and limited conflicts of use (ex : PV, onshore wind, biogas)

Regulatory developments

- Energy transition
 - Law, published on August 18, 2015
- New value of feed-in tariff for biogas (methanization) :
 - Ministeriel orders on October 30, 2015 and September 23, 2016
- Biomethane tender procedure :
 - Ordinance of the President on April 7, 2016
- RES objectives :
 - Ministeriel order on April 24, 2016
- Feed-in-premium and feed-in tariffs :
 - Ministeriel decree on May 27, 2016
- Food crops and staple crops :
 - Ministeriel decree on July 7, 2016
- Feed-in tariff :
 - Ministeriel order notified to European Commission



« Biomass 2016 » tender procedure

- Launch by the French Minister of Energy on February 4, 2016
- Published in Official Journal of the European Union,
- Download specification and annexes at : <http://www.cre.fr/documents/appels-d-offres>
- Three calls in three years, excluding non-interconnected territories (Corsica, overseas countries and territories)
- Power tender call and deadlines*

Planned timetable	2016				2017				2018				2019
	T1	T2	T3	T4	T1	T2	T3	T4	T1	T2	T3	T4	T1
Biomass combustion 0,3 MW < installations < 25 MW	Launch		Deadline 1 50 MW	Administrative instruction	Designation of the winners		Deadline 2 50 MW	Administrative instruction	Designation of the winners		Deadline 3 50 MW	Administrative instruction	Designation of the winners
Methanization 0,5 MW < installations < 5 MW			Deadline 1 10 MW		Designation of the winners		Deadline 2 10 MW		Designation of the winners		Deadline 3 10 MW		Designation of the winners

- Two batches :
 - Biomass combustion (5th tender procedure)
 - Methanization : 1st tender procedure
- Notification in progress to the European Commission*

General presentation

➤ Facilities typology :

- Biomass cogeneration unit, from 300 kW to 25 MWe
- Biogas plants, from 500 kW to 5 MWe (excluding biogas produced by wastewater treatment plants and non-hazardous landfills)

➤ Ranking according price, with possible bonus if :

- use of unavoidable energy (heat originating from smokes) commitment
- air quality outperformance (dust and NOx emissions) commitment

➤ New :

Premium for equity-based investment (local communities, cooperative societies over 20 natural persons)



Biomass combustion

- Facilities electric power : from 300 kW to 25 MW
- High efficiency cogeneration units according European directive 2012/27/UE
- 100 % wood from sustainable forests if supply offside mainland France
- Maximum limit of 5% for fossil fuel
- Maximum limit of 400 GWh for for wood chips

(Wood chips LHV is about 2.7 GWh/t, so this limit corresponds 100% woodchips supply of a 10 MWe installation)



Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE



Ministère
de l'Environnement,
de l'Énergie
et de la Mer



Methanization

- Priority for biogas injected into the natural gas system
- Facilities electric power : from 500 kW to 5 MW
- Premium if methanization livestock manure in farms
- Maximum limit of 15 % for food crops and staple crops
- No limit for intermediate crops for energy
- Maximum limit of 5% for fossil fuel



Administrative instruction

- Instruction by the French energy regulator : Commission de Régulation de l'Energie (CRE), except supply of biomass plans
- The Prefect of region, where the project is located, must give an opinion as the project supply plan
 - he checks on compliance of project supply with specifications
 - he checks on compliance with conflicts of use
 - He give *in fine* a general opinion
- The regional biomass unit, made up of DREAL, DRAAF and ADEME sector experts, is involved by the prefect to put forward proposals



Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE



Ministère
de l'Environnement,
de l'Énergie
et de la Mer

Thank you very much for your attention

Contact : gerard.denoyer@developpement-durable.gouv.fr

To find out more :

Ministry of environment, energy and the sea website :

<http://www.developpement-durable.gouv.fr/-France-launches-its-energy-.html>

http://www.developpement-durable.gouv.fr/IMG/pdf/14123-8-GB_loi-TE-mode-emploi_DEF_light.pdf



ANNEXES

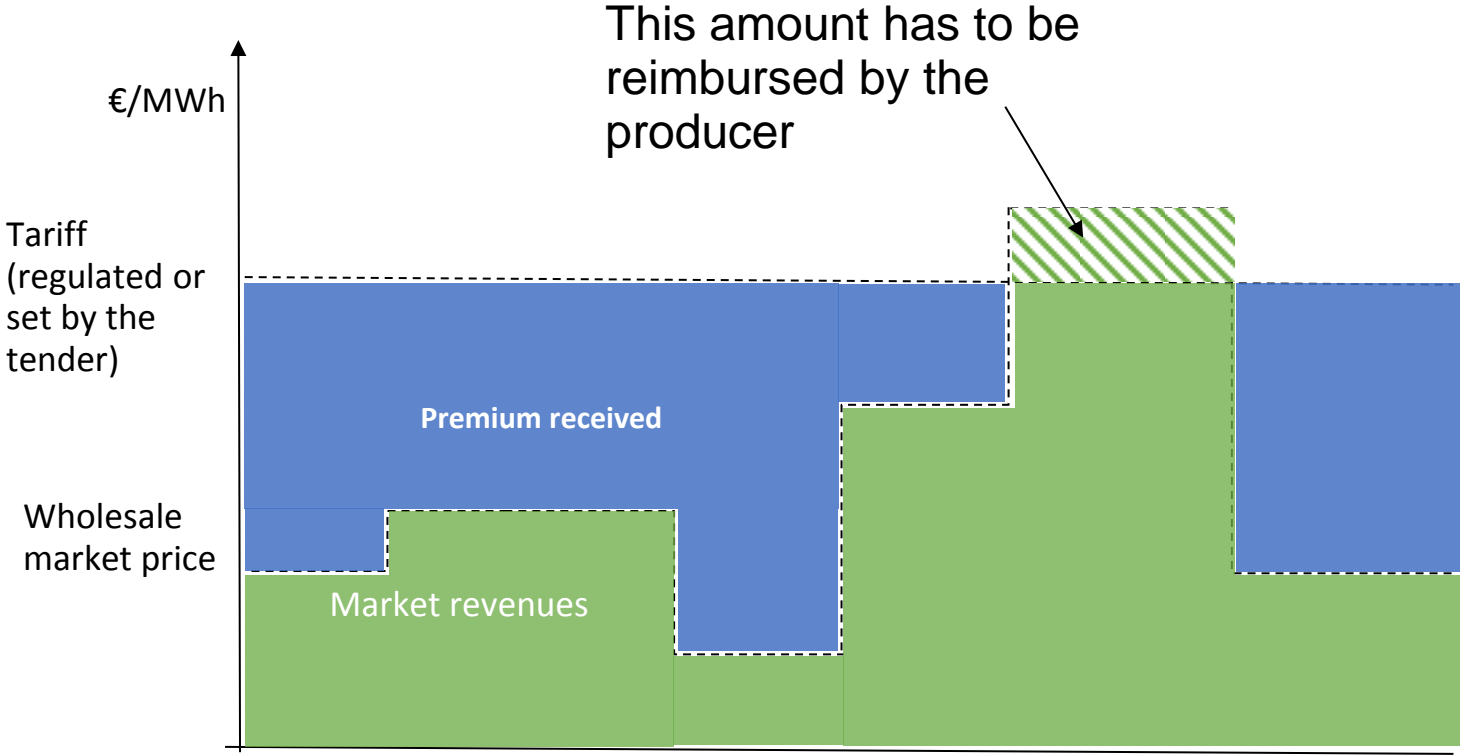


Technology support overview (from 2016)

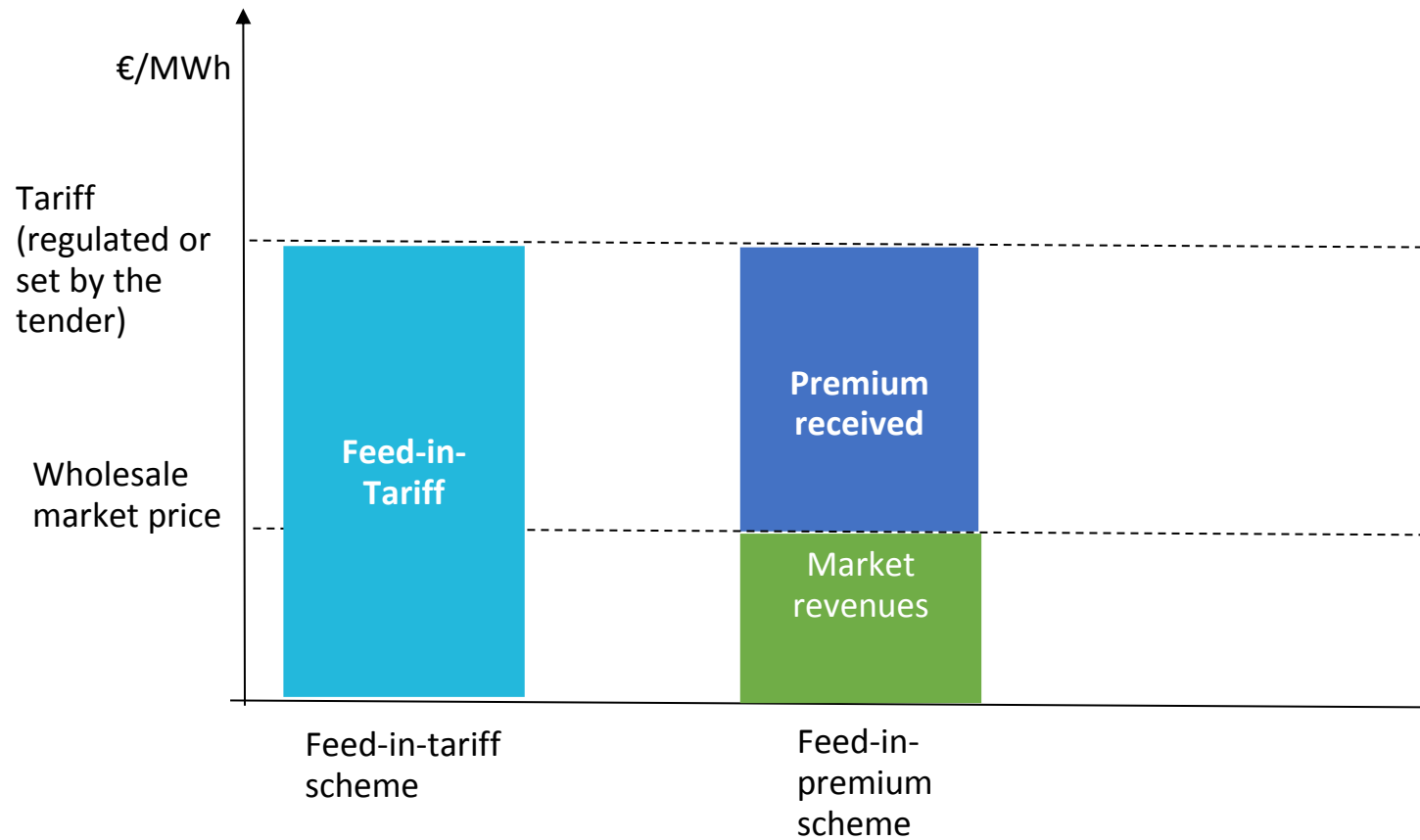
Renewable Energy Sources	Capacity (kW)				
	100	< 300	< 500	≤ 1000	> 1000
Hydropower	FIT				T (FIP)
Waste incineration	FIP				
Biomass	T (FIP)				
Biogas from waste water treatment plant and landfill	FIT			FIP	
Biogas (others)	FIT			AO (CR)	
Geothermal power	FIP				
Gas cogeneration	FIT		FIP		T (FIP)
Solar PV	FIT	T (FIT)		T (FIP)	
Onshore wind	FIT				
	FIP				
Energies marines	FIT (demonstration projects only)				
Offshore wind	T (FIP)				

Feed-in-premiums (FIP)

Feed-in-premium scheme (or contract-for-difference)



Comparison of the two schemes



Financing

