



**MINISTÈRE  
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# **SELF-CONSUMPTION: THE FRENCH FRAMEWORK**

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# 1. A recent yet evolving framework

# Individual self-consumption

- Energy Transition for Green Growth Act of August 2015: the Government was allowed to design and implement a framework that would enable the development of self-consumption, by way of ordinance
- Ordinance of July 2016: electricity is produced and consumed by **a same** legal (or physical) person (or household)
- Law of ratification of February 2017: individual self-consumption must occur **in a given location, instantly or after storage**
- Energy and Climate Act of November 2019: **the installation may be owned or managed by a third party, or managed by a third party for installation, operation and maintenance** (cf. RED II)

# Collective self-consumption

- Ordinance of July 2016: electricity is produced and consumed by **several** legal (or physical) persons (or households), located **downstream of a low-tension substation** of the electricity distribution network, and **linked within a Legal Organising Body**
- Energy and Climate Act of November 2019:
  - Collective self-consumption is “narrowed” to a **single building** (cf. RED II)
  - Collective self-consumption can be “**extended**”: within a perimeter defined by Ministerial order: **1 km-radius (10 km in rural areas since October 2020) and maximum generating power of 3 MW, in the low-voltage network, but possibly downstream of different substations**
  - Social landlords can be Legal Organising Bodies

## 2. The framework in detail

# General rules

- **Net-metering is not allowed:** a consumer cannot be “granted” more energy than its own instantaneous consumption
- **Small producers (< 3kW)** can be **exonerated from balancing responsibility** for the injected surplus:
  - This surplus is “assigned” to network losses
  - No compensation is given

# Specific rules for collective self-consumption

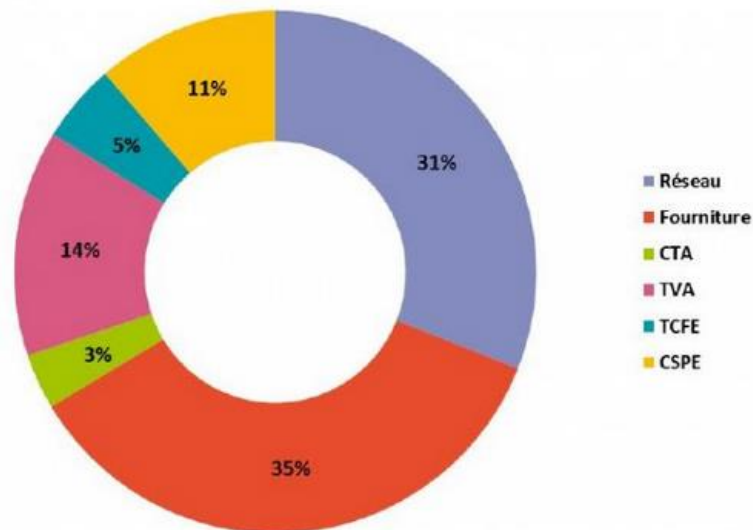
- The regulatory authority (CRE) shall establish a **specific network-use tariff (“TURPE”) for self-consumption**. So far:
  - Only collective self-consumption downstream of a low-voltage substation is concerned
  - This tariff is **optional**
- There must be a **contract between the Legal Organising Body and the DSO**, that includes in particular:
  - The list of participants
  - The **rule on allocation** of the electricity produced (default: pro rata of each consumer’s consumption)

# 3. Support mechanisms



# Economic rationale of self-consumption

- For a residential consumer, supply, network tariff and taxes each account for about a third of the electricity bill, and **individually self-consumed electricity is not subject to:**
  - **Taxes based on the electricity consumption**
  - **The consumption part of the network tariff**
- Self-consumed production is valued at roughly three times the market price ( $\approx$ supply), less for bigger consumers
- **Is it profitable enough? What to do with the surplus?**



# What to do with the surplus without support schemes?

- Despite a high valuation of self-consumed electricity, self-consumption rates are not always enough to make it profitable
  - The surplus can be:
    - “Assigned”, for free, to network losses (only for installations < 3 kW)
    - Shared in a collective self-consumption operation, **but taxes and network tariffs are due**
    - Sold on the market : difficult for small actors (households, small businesses...), or costly (aggregators), and not always profitable enough
- **Need of a support scheme for the surplus**

# Support schemes for individual self-consumption

- PV installations <100 kWp : feed-in tariff (FIT) + investment premium
- “Technology-neutral” installations >100 kW and <1 MW: tenders
  - Feed-in premium (FIP) computed on self-consumed and injected electricity, with an aim to maximise self-consumption
  - Leads to “undersizing” of installations and lack of interest in the tenders

Capacity (kWp)	FIT (€/MWh)	Premium (€/kWp)
0 – 3	100	390
3 – 9		290
9 – 36	60	180
36 – 100		90

$$\begin{aligned}
 FIP = & \\
 & (P + 5) \times E_{self-consumed} + P \times E_{injected} \\
 & - 12 \times E_{produced} \times \frac{P_{max,injected}}{P_{installed}}
 \end{aligned}$$

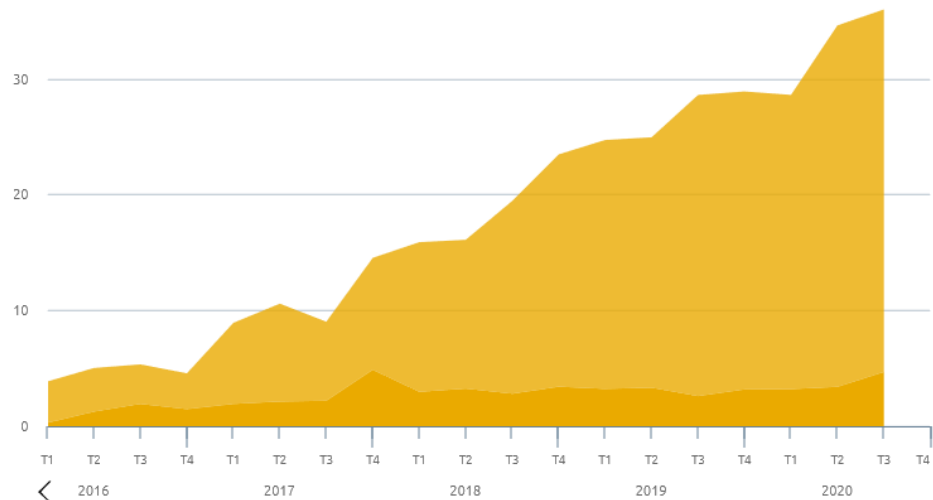
# A glimpse of future support schemes

- Issue: tenders are not adapted for medium (100-500kW) installations
  - **Extension of the current FIT scheme up to 500 kW**
    - Similar conditions for installations < 100 kW
    - For 100-500 kW, at this point: **only FIT for the surplus** (no investment premium is foreseen)
- Issue: no network tariff and tax exemptions for collective self-consumption and no possibility to get FIT or FIT on the surplus
  - **Individual self-consumers under FIT or FIP could be allowed to share their surplus within an operation.** The “surplus of surpluses” could then get FIT or FIP
  - Network tariffs and taxes could be accounted for in the FIP of future tenders

# 4. Where are we and where are we going?

# Self-consumption is developing, mainly PV

- At the end of Q3 2020:
  - **86 060 installations, 99.5% of which is PV** (63% of which is <3 kW and 27% is between 3 kW and 6 kW)
  - **506 MW installed capacity, 71% of which is PV** (41% of which is <3kW and 32% is between 3 kW and 6 kW))
  - **8 388 connection requests in Q3 2020 (+51% vs Q2)**



*Quarterly newly connected PV capacity, with (light) and without (dark) surplus injection*

# French objectives for self-consumption

- Objectives for 2023, set out in April 2020 in the multiannual energy plan (“PPE”)
  - 200 000 PV self-consumers
  - 50 collective operations (vs 39 today)
- At the current pace, both objectives should be met
- The future evolution of support schemes could accelerate the trend

# Contact

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