

Electricity consumption in manufacturing industry is picking up but still lagging behind

Electricity consumption has been a useful source for monitoring real-time changes in company and household activity during the health crisis.¹

The change in consumption by businesses during and after lockdown reflects the drop in activity in March and April, then the gradual recovery. According to data from RTE (Electricity Transmission Network) on businesses connected directly to their network, electricity consumption shrank most in those branches that were most affected by the decline in activity and those that use most electricity, for example, the manufacture of transport equipment (which includes the automobile and aeronautics industries). According to data from Enedis, non-residential consumption (businesses not connected directly to RTE and the public sector) followed a similar, though slightly reduced trend.

Regarding household consumption, which on average was higher than normal during lockdown, it has now returned almost to normal, according to Enedis.

After a sharp decline during lockdown, the upswing in activity has also been evident in companies' electricity consumption, but with some disparities between branches

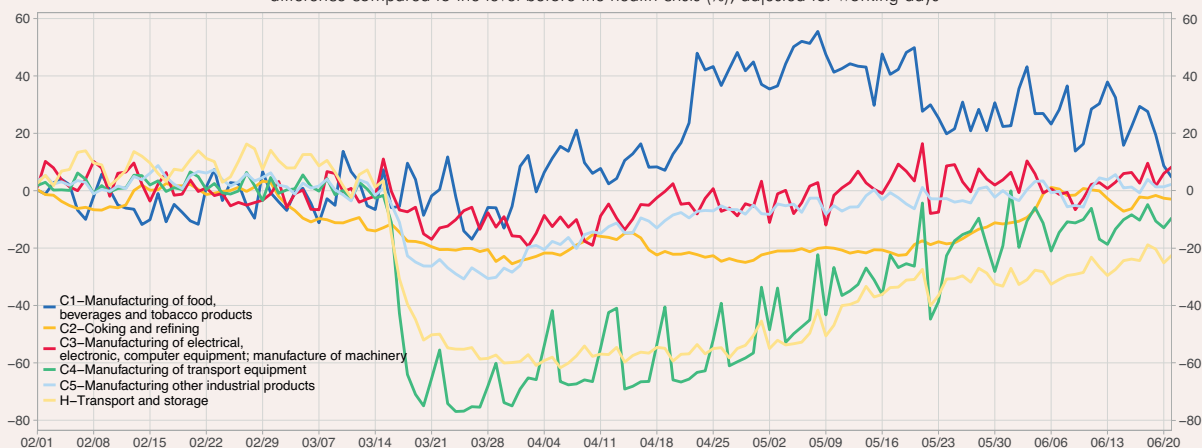
Electricity consumption data from RTE was used to monitor consumption both during and after lockdown in certain sectors of activity, where a sufficiently representative number of businesses were connected directly to the network. Their representativeness, measured from turnover, varied widely between sectors but was fairly high, even very high, in the transport services and manufacturing industry branches.

Within manufacturing industry, some strong sectoral disparities emerged after 17 March, although until then trends in electricity consumption had been relatively similar (Graph 1). For example, electricity consumption in "Manufacture of food products,

beverages and tobacco-based products" increased during lockdown (+18% between 23 March and 10 May compared to a normal period), but this rise was even more pronounced later (+31% between 11 May and 26 June, compared to a normal period), driven by consumption in the "Manufacture of starch products" branch (i.e. from rice, wheat, potatoes, corn, etc.). For the other manufacturing branches, lockdown had a negative impact on their electricity consumption but was then followed by a gradual return to normal. There was a particularly sharp decline for the manufacture of transport equipment (-61% between 23 March and 10 May, while the decline across the manufacturing industry as a whole was 17%), a branch where recovery was also slower than in the other branches of manufacturing industry (-18% between 11 May and 26 June, against -2% for the manufacturing industry as a whole). This profile of change is the same as in the sub-branch

1. Regarding the methodology, see the focus in the *Point de Conjoncture* of 7 May 2020: "What do electricity production and consumption data tell us about economic activity during lockdown?" Since climate and seasonality have a significant effect on electricity consumption, time comparisons are made only after adjustment for the effects of variations in temperature, working days and months of the year for households and businesses not connected to RTE; and after adjustment for working days for businesses connected directly to RTE.

1 - Electricity consumption of companies connected directly to RTE by branch
difference compared to the level before the health crisis (%), adjusted for working days



How to read it: on Monday 15 June 2020, the consumption of electricity by companies in the Transport and Storage branch connected directly to the electricity network was still 24% lower than the average consumption level for a Monday.

Sources: RTE, INSEE calculations

French economic outlook

that is the largest consumer of electricity, automobile manufacturing, which was very much affected by the health crisis. This was also the manufacturing industry branch that experienced the greatest drop in activity: -67% in April compared to a normal period (*Economic Activity sheet*).

For the transport and storage branch, where the decline in electricity consumption during lockdown was the greatest across all branches,² electricity consumption has still only partially recovered: between 11 May and 26 June, it was still 30% below normal.

According to Enedis, non-residential consumption, all subscribed power levels combined, was at -24% compared to a normal situation between 23 March and 10 May, before climbing back up to -13% between 11 May and 5 June (*Graph 2*). This exceptional downturn is similar to what was experienced by companies connected directly to RTE, where it was -22% between 23 March and 10 May and -8% between 11 May and 5 June.

Household consumption has been getting closer to normal levels since the easing of lockdown started

During lockdown, households used more electricity to heat and light their homes, where they cooked their meals and used digital technology for work and entertainment. As a result, their electricity consumption increased by 3% between 23 March and 10 May (*Graph 2*). After 11 May, the end of lockdown meant a gradual return to daytime travel and working on site for a growing number of households. Their electricity consumption is therefore likely to be only slightly higher than normal between 11 May and 5 June, at around +1%.

Data:

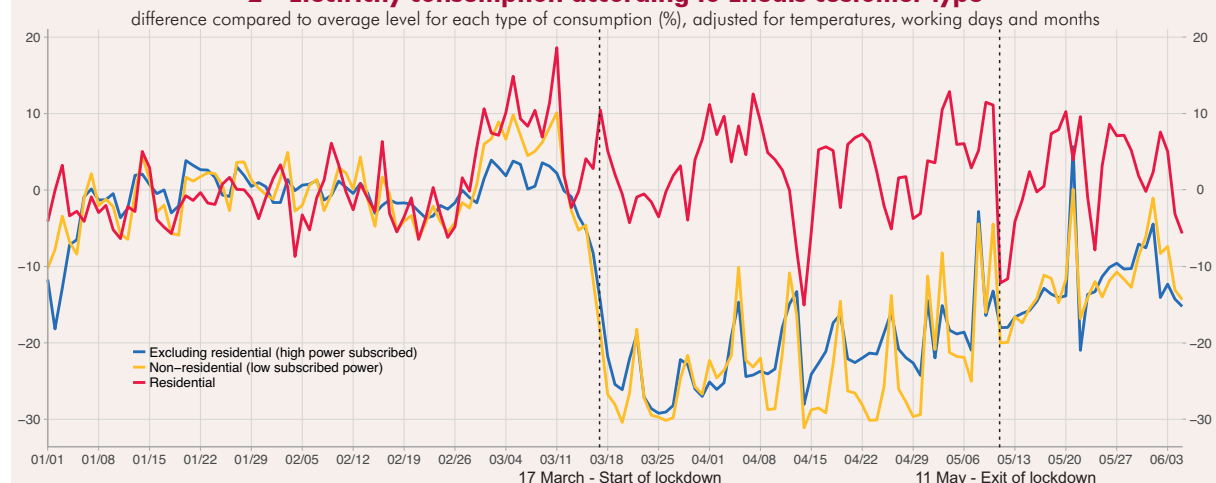
RTE (Electricity Transmission Network) is the French transmission system operator. RTE carries electricity between (French and European) electricity suppliers and consumers, whether they are electricity distributors or industrial companies connected directly to the

transmission network. The data used in this focus were supplied by RTE, and cover companies connected directly for the period 1st January 2020 to 26 June 2020.

Enedis is the main distributor of electricity (80% of consumption in Metropolitan France). The data used in this focus were supplied by Enedis, and cover the period 1st July 2018 to 5 June 2020. They are based on dynamic profiling of consumption by all customers on the Enedis network. ■

2. See *Point de Conjoncture* of 7 May

2 - Electricity consumption according to Enedis customer type



How to read it: on Monday 6 April 2020, electricity consumption by households was 5% higher than the average consumption level for a Monday in April with similar temperatures.

Sources: Enedis, INSEE calculations