

## Tracking effect of COVID-19 on energy supply and demand

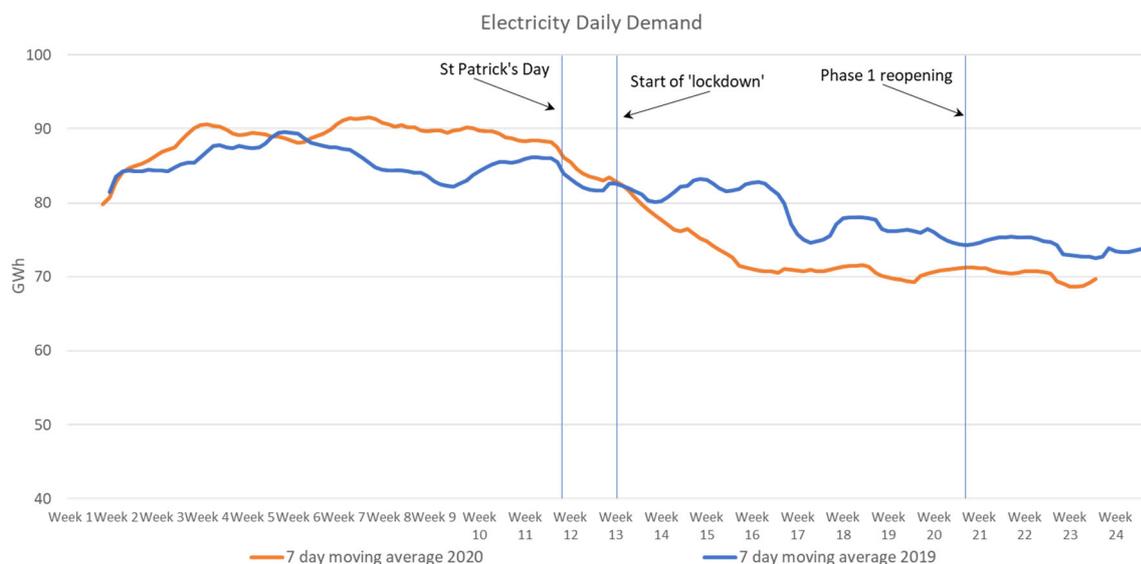
May 2020

This note provides a brief overview of energy demand trends for electricity, gas, oil and solid fuel in Ireland since 1<sup>st</sup> January 2020.

The most recent data included in the demand trends is for **April**. Some of the impact of COVID-19 on energy demand reductions are becoming evident. These are described below.

### Electricity

The chart below shows analysis of the demand data on EirGrid's website. This shows the 7-day moving average of the daily demand in GWh since 1<sup>st</sup> January, which smooths out differences in weekday and weekend demand.



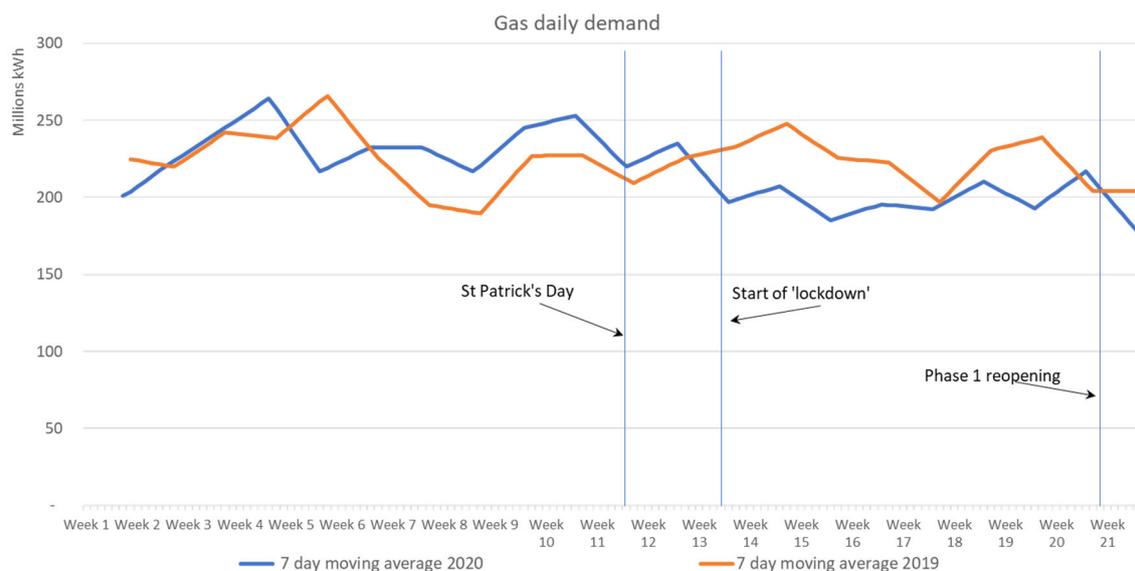
Electricity can be followed daily on the EirGrid websites. Some analysis is needed to make them accessible.

- Current indications are that average daily electricity demand is some 15% to 20% lower during the first week of 'stay-at-home' restrictions compared with the same week a month previous.
- The average daily demand from week 3 to week 12 of 2020 was around 90 GWh.
- The first week of the stay-at-home restriction was week 14 when demand dropped to an average of 76 GWh.
- The second week of the travel restriction included Easter (weekend of week 15 and 16), demand dropped further to 71 GWh and has remained more or less at this level since. Easter occurred between week 16 and 17 in 2019, hence the dip in demand in the 2019 series.
- In week 21, demand averaged 71 GWh, a 21% reduction on pre-restrictions. Using an intensity figure of 0.33 kgCO<sub>2</sub>/kWh, this results in a 6.3 ktCO<sub>2</sub> per day reduction in emissions.

Official monthly statistics on electricity are available on an M-1 basis. These give high level production, import/export, stock change and supply figures. Energy input to electricity generation is available at M-2.

## Gas

The chart below shows analysis of the demand data on GNI's website. This shows the 7-day moving average of the daily demand in GWh since 1<sup>st</sup> January, which smooths out differences in weekday and weekend demand.



This data is not weather corrected but there does appear to be a reduction in gas demand during the first two weeks of the stay-at-home travel restriction. Notwithstanding the lack of weather correction, demand dropped from an average daily demand of 230 GWh pre lockdown to 196 GWh during lock down – a fall of approximately 15% - while during the same period in 2019 demand was increasing.

In January (weeks 1 to 5) there were 5% fewer heating degree days compared with January 2019 – that is it was slightly warmer. February and March (weeks 5 to 13) there were 24% and 12% respectively more degree days signifying that these months were somewhat colder than 2019. April (weeks 14 to 18) was slightly warmer than April 2019 with 9% fewer degree days. The good weather during April and May has seen flat demand for gas between week 14 and 20.

Official monthly statistics on gas are available on an M-1 basis. These give high level production, import/export, stock change and supply figures. Gas can be followed daily on the GNI websites.

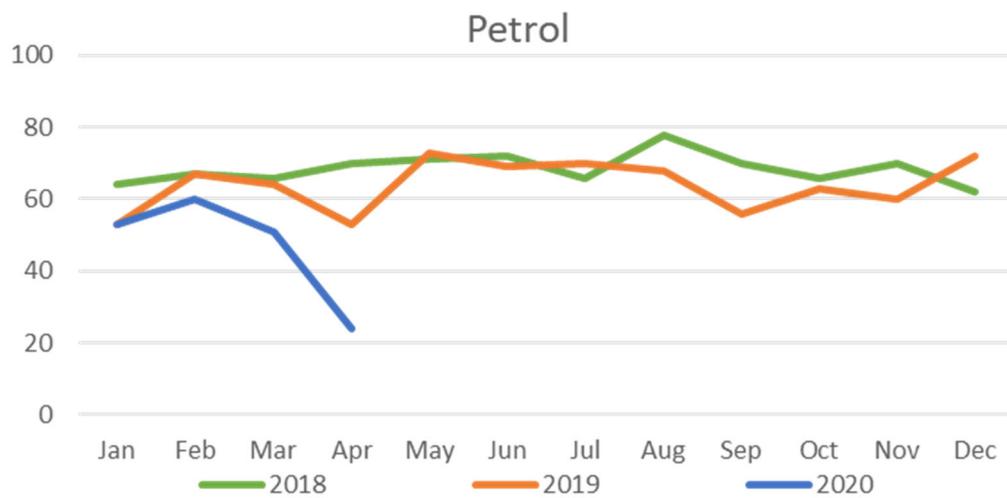
## Oil

Traffic movements are down by approximately 60%<sup>1</sup> during the lock-down compared with directly beforehand. Currently oil supply data is available up to the end of April.

Of the oil products, petrol, diesel and jet kerosene are the most immediately affected due to the travel restrictions.

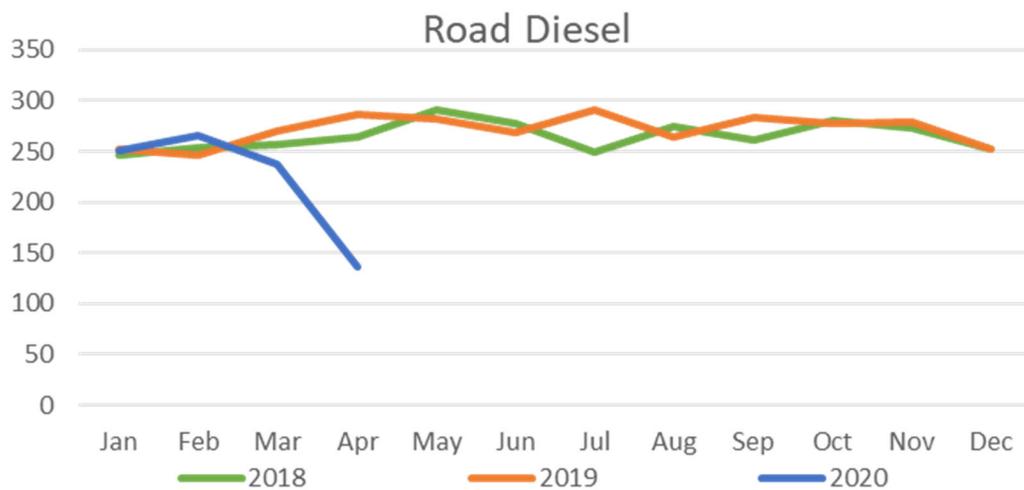
<sup>1</sup> [https://www.nratrafficdata.ie/c2/gmapbasic.asp?sgid=ZvyVmXU8jBt9PJE\\$c7UXt6](https://www.nratrafficdata.ie/c2/gmapbasic.asp?sgid=ZvyVmXU8jBt9PJE$c7UXt6)

## Petrol



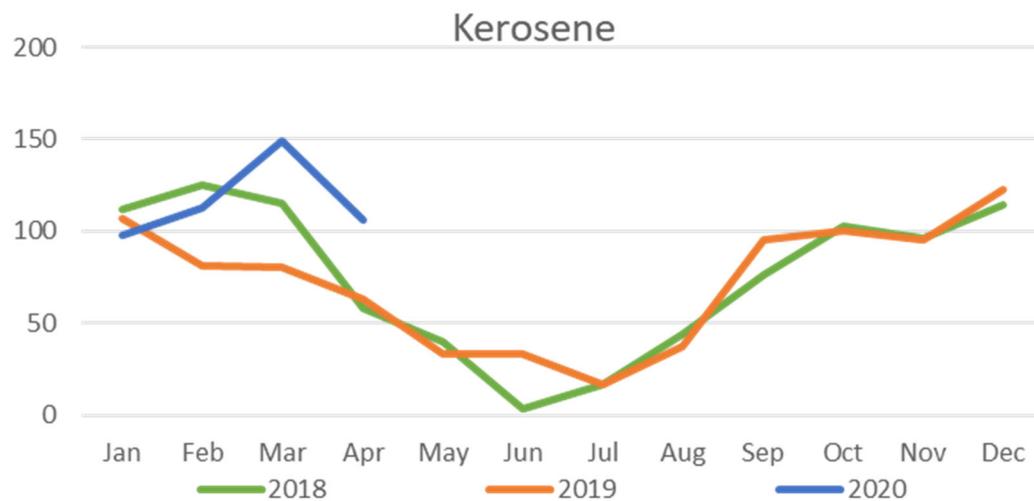
- Deliveries of petrol dropped by 15% in March 2020 compared with February 2020 and by a further 53% in April compared with March.
- Compared with 2019 deliveries were 20% and 55% lower respectively in March and April.

## Diesel



- Deliveries of road diesel dropped by 10% in March 2020 compared with February 2020 and by a further 42% in April compared with March.
- Compared with 2019 deliveries were 12% and 52% lower respectively in March and April.

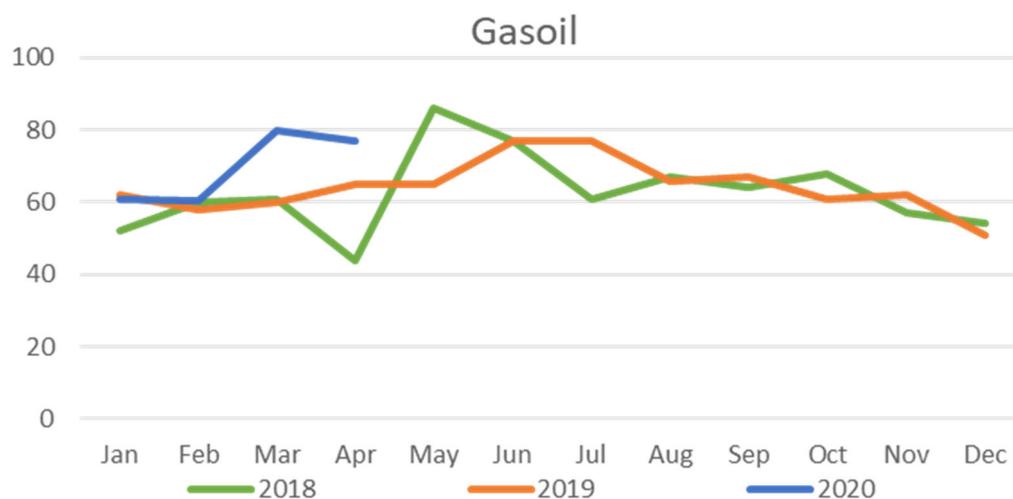
## Kerosene



Kerosene is used for heating in households, services and industry

- Deliveries of kerosene increased by 32% in March 2020 compared with February 2020 and then fell by 29% in April compared with March.
- Compared with 2019 deliveries were 86% and 68% higher respectively in March and April.
- This dramatic increase in March and April 2020 compared the same period in 2019 is likely due to a combination of low oil prices and stocking up at the start of the lockdown. This build-up of kerosene in the oil tanks of households should result in lower deliveries later in the year.

## Gasoil

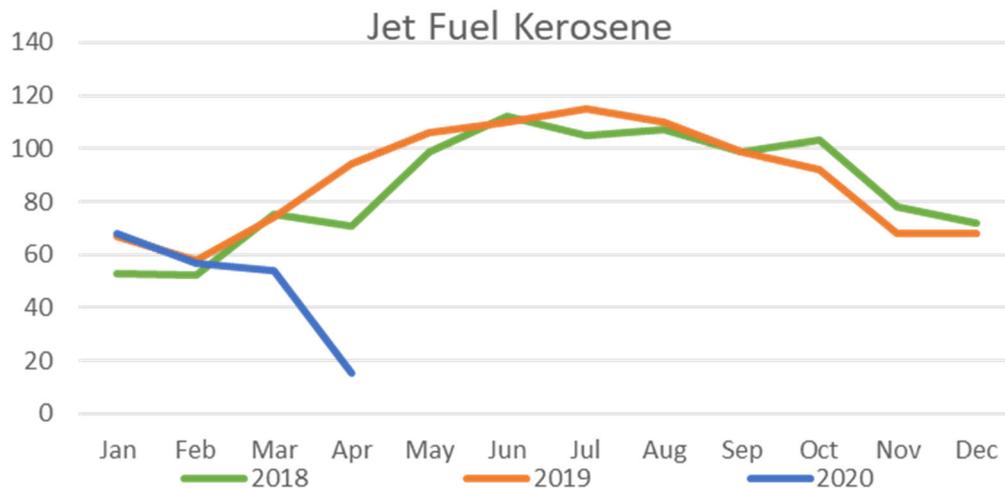


Gas oil is also used for heating in households, service and industry. Again, as with kerosene, there could be some filling of tanks due to low price and delivery anxieties.

- Deliveries of gasoil increased by 32% in March 2020 compared with February 2020 and then fell by 3.8% in April compared with March.

- Compared with 2019 deliveries were 33% and 18% higher respectively in March and April. This build-up of gas oil in the oil tanks of households and business should result in lower deliveries later in the year.

### Jet Kerosene



- Deliveries of jet kerosene for air travel dropped by 5.3% in March 2020 compared with February 2020 and by a further 72% in April compared with March.
- Compared with 2019 deliveries were 27% and 84% lower respectively in March and April.

### About SEAI

SEAI is Ireland’s national energy authority investing in, and delivering, appropriate, effective and sustainable solutions to help Ireland’s transition to a clean energy future.

We work with Government, homeowners, businesses and communities to achieve this, through expertise, funding, educational programmes, policy advice, research and the development of new technologies.

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