

An announcement from Freight21 about the Carbon Impact of Freight on the A14.

Freight21 has been analysing the volume and transport of container traffic flowing through the Port of Felixstowe – the largest in the UK. The study has looked at the present situation and the likely situation in 2044 and its impact on the A14.

Presently¹, 23.17 Mt of container goods pass through Felixstowe each year, shipped in 3.71M TEUs². Of this, about 25% travels by rail (the vast majority via Ely), and most of the rest by road up the A14 to other parts of the UK. This involves an average of about 4000 HGV journeys per day along the A14. Taking the section of the journey from Felixstowe to Nuneaton as a fair analysis for the UK trade as a whole, we estimate that road transport emits 529,000 tpa and rail transport emits 59,000 tpa of GHG, a total of 587,000tpa of GHG. (See: Freight21 working paper - Freight to and from Felixstowe and the East Coast in 2044 [here](#))

Looking ahead³ to 2044, it is predicted that if there are no capacity constraints there would be about 6.16M TEUs² pa passing through Felixstowe. What this implies will depend on improvements to rail provision:

1. With no change to the existing rail provision, there would be about 7,500 HGV journeys daily on the A14 (more than 5 HGVs per minute entering or leaving the port, around the clock), and an overall GHG emission of 1,051,000 tpa;
2. If the railway through Ely were upgraded and electrified to double its present capacity, there would be about 6,200 HGV journeys daily and 80 trains a day, and overall GHG emissions of 845,000 tpa;
3. If the Ely line were upgraded and electrified to double its capacity, and the Freight21 study route past Cambridge and Bedford to Bletchley were built and carrying the same volume as the Ely line, then there would be about 3,500 HGV journeys daily and 80 trains per day on each of the two tracks, with overall GHG emissions of 520,000 tpa.
4. If 90% of container traffic were directed equally via Ely or Bletchley by rail, total GHG emissions would be about 197,000 tpa. There would be 900 HGV movements a day, and there would be a train entering or leaving the port every 6 minutes.

See Freight21 Route analysis [here](#) and route plots [here](#), (set out in Freight21 website). Note: these do not include freight from Ipswich or Harwich ports.

¹Averaging over 2010-2021.

²TEU=twenty-foot equivalent units, a standard maritime container being 40ft

³We use the predictions of this Department for Transport report.

Conclusions:

Only the last two scenarios (3 & 4 above) would result in lower GHG emissions.

Even with double capacity on the Ely line (2 above), there would be 44% more GHG emitted.

A bigger problem with these assumptions is whether by 2044 there would there be *sufficient* HGVs available? New sales of diesel HGVs end in 2040, and there is as yet no viable replacement. Put simply, *by 2044 rail may be the only viable means of long-distance overland transport of heavy loads*. Road alternatives for freight that save GHG are at best still only experimental; we know that electrified rail (Switzerland!) is already a form of transport for freight that works.

EWK as currently planned is **not** an option as it has online stops and goes through Bedford and Cambridge and is considered inappropriate for high volumes of freight.

The answer is to build a non-stopping trunk line as suggested by Freight21 that can take high volumes of freight as well as passengers.