The Coastal Highway Route E39: Benefits for freight transport

October 2018

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The case in brief

Realising the E39 as an improved and continuous route without ferries will reduce travel time from Kristiansand to Trondheim by around 11 hours. The route will be almost 50 km shorter, and as many as seven ferry connections will be replaced.

This reduction in distance, travel time and disruptions will improve conditions for freight transport on this route. Driving costs and time costs will be reduced, whereas toll costs will increase temporarily in the toll period. All in all, the cost level for heavy vehicles will be lower with the improved and continuous E39 than it is today. When the toll periods for the entire route expire, the costs for heavy vehicles will be reduced by almost 50 % compared to today’s level.

Assumptions

The graphs are meant as examples of generalised costs for heavy vehicles today and in the future. The examples are based on a number of assumptions, and the cost information here presented will be changing in

GOAL

The E39 from Kristiansand to Trondheim is approx. 1100 km. Current travel time is approx. 21 hrs, including 7 ferry connections. The aim is to create an improved E39 without ferries, which will reduce the travel time to 11 hours.

The road toll level is based on our development strategy. The toll rate for heavy vehicles has been entered for category of 17-19 metres and 2x the rate for light vehicles in the example. We have assumed a speed limit of 80 km/hour for heavy vehicles along the entire route.

Time costs for heavy vehicles comprise, in addition to the cost of wages to driver and assistant, time-dependent operation costs in terms of administration and garaging as well as a time-dependent share of capital costs and taxes. Time-dependent costs accumulate both when the vehicle is in motion and at a standstill.

Distance-dependent vehicle costs comprise fuels, oil, tyres, repairs and maintenance as well as distance-dependent depreciation. The size of the various cost components vary with different types of vehicles. Fuel consumption for the different vehicle categories is calculated as a function of speed, curvature and gradient. All heavy vehicles are assumed to run on diesel. Other vehicle costs are calculated per kilometre based on distance driven.

Sources:
Development strategy for an improved and continuous E39 Coastal Highway Route - NPRA
NPRA Manual V712 - Konsekvensanalyser (Impact assessments)
Photo: Knut Opeide/NPRA

More information: vegvesen.no/ferjefrie39 and facebook.com/ferjefrie39
Examples of general cost for freight transport today and in the future

Kjøreknad = driving costs
Tidskostnad = time costs
Bompengar = road tolls