



The Coastal Highway Route E39: Benefits for passenger cars

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Photo: Statens Vegvesen

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 reduce driving costs and time costs for passenger cars, but 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 passenger cars will be reduced by one third compared to today's level.

Assumptions

The graphs are meant as examples of generalised costs for passenger cars today and in the future. The examples are based on a number of assumptions, and the cost information here presented will be changing in line with changing assumptions and selected road section.

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. We have assumed a speed limit of 100/90 km/h for passenger cars along the entire route.

Time costs for leisure trips and home-work trips are based on surveys measuring the road users' willingness to pay to save travel time. Time values are determined based on a major Norwegian time value survey (Ramjerdi et al 2010). Time values are national average values (NOK/person-hour) and vary with travel distance, travel purpose, transport mode, and access and waiting time for public transport trips. Toll costs in the examples are based on passenger cars with one passenger for today's situation, whereas passengers will be included in future toll rates (AutoPASS).

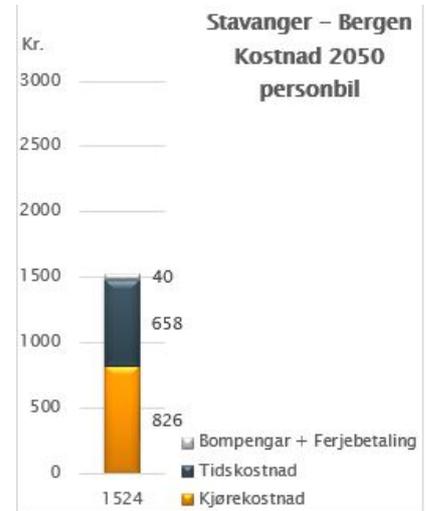
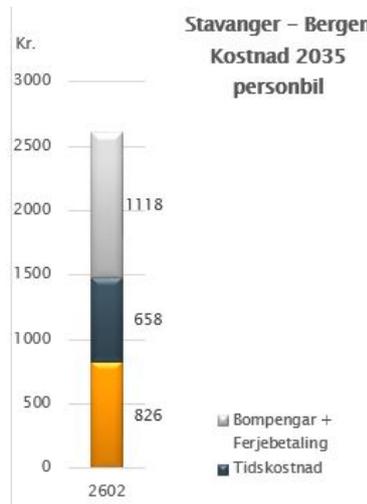
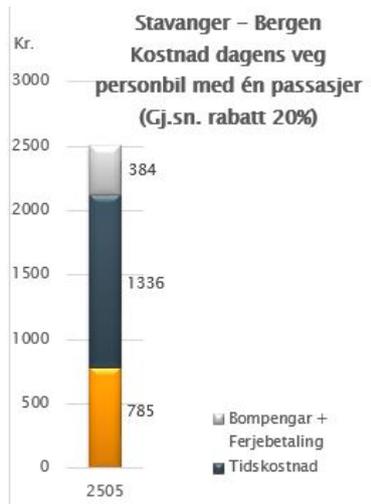
Distance-dependent vehicle costs comprise fuels, oil, tyres, repairs and maintenance, as well as distance-dependent depreciation. The size of the various cost components varies with different types of vehicles. The methodology differentiates between light and heavy vehicles. Vehicles with a maximum authorised mass of more than 3.5 tonnes are defined as heavy. Fuel consumption for the different vehicle categories is calculated as a function of speed, curvature and gradient.

For light vehicles, calculations are based on a distribution between diesel and petrol cars. The methodology for calculating emissions from our vehicle fleet contains forecasts for future fuel consumption. Other vehicle costs are calculated per kilometre based on distance driven.

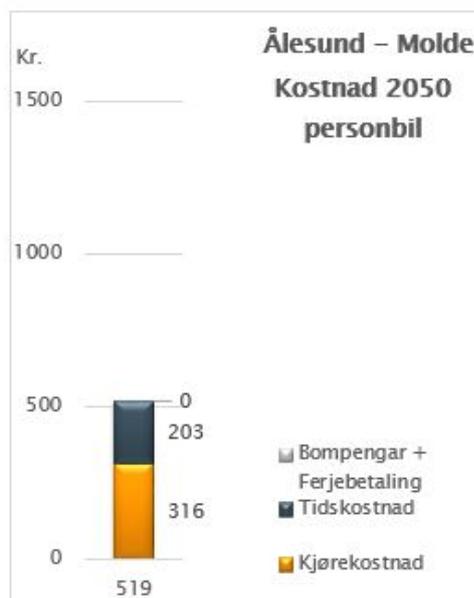
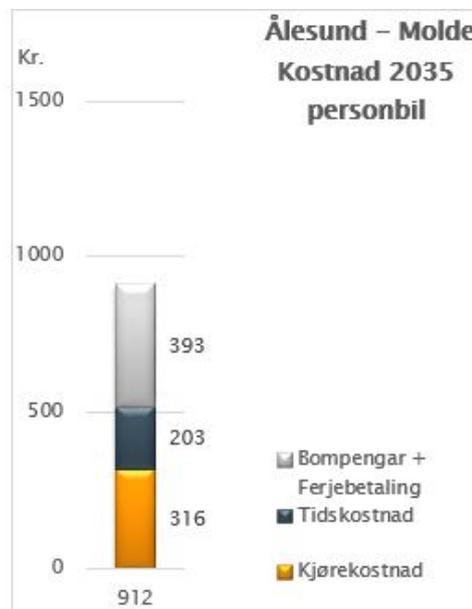
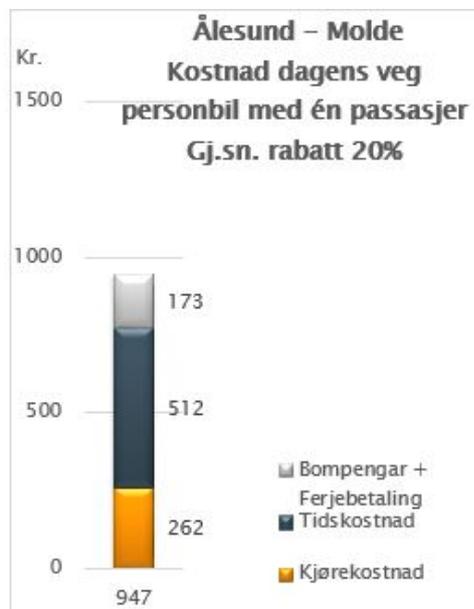
Sources:

Development strategy for an improved and continuous E39 Coastal Highway Route - NPRA
NPRA Manual V712 - Konsekvensanalyser (Impact assessments)

Example, travel costs Stavanger - Bergen



Example, travel costs Ålesund-Molde



Bompengar + ferjebetaling= toll costs and ferry fee

Tidskostnad= time costs

Kjørekostnad = driving costs