

The Eco ladder for energy management: A literature review of economical driving and energy management

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Author: Tor-Olav Navestad og Rolf Hagman
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Transport accounts for 30 % of man-made emissions of greenhouse gases, and goods transport by road accounts for 45% of the total energy consumption in transport. Measures within goods transport will therefore be a good starting point for reducing greenhouse gas emissions. Existing research shows that trucking companies' measures to facilitate an economical driving style can generally achieve between 5 and 10% reduction in fuel consumption, and that they can probably reduce their energy consumption even more, by also focusing on factors additional to driving style. However, the existing recipes for such measures (e.g. ISO: 50001) seem to be relatively complicated, resource-intensive, and to a small extent adapted to transport. Previous research shows low implementation of such management systems in trucking companies, because most of them are small (<5 employees), and probably have few resources when it comes to finances, time and expertise. In the present study, we therefore develop a research-based model for how trucking companies can work with economical driving and energy management at the organizational level. We call the model the Eco Ladder for energy management. The Eco ladder describes an approach with gradual introduction of specific measures, where companies must start with the measures that we assume to have the greatest effect, and which are easiest to implement, before moving on to the next level. We also discuss what effects companies can expect from the measures, for finances, emissions, traffic safety and the working environment, based on existing research.