

## Looking for New Energy Taxes

The Danish state depends heavily on taxes on commodities and technologies which are supposed to fade away. The Danish minister for Climate, Energy and Building has clearly stated that falling revenue from present taxation must be replaced by increased or new taxes.

The annual revenue from energy and cars in Denmark is about 65 billion DKK.

### The Security of Supply Tax

For replacement of the decreasing revenues an increased tax on fossil fuel for space heating is in preparation. In order to avoid unreasonably high taxes on fossil fuels the new rules also include taxes on bio-fuels.

The name of the tax had to suggest a useful purpose. "Security of supply tax" was chosen, maybe in order to leave the impression that the new tax will contribute to improve security of supply.

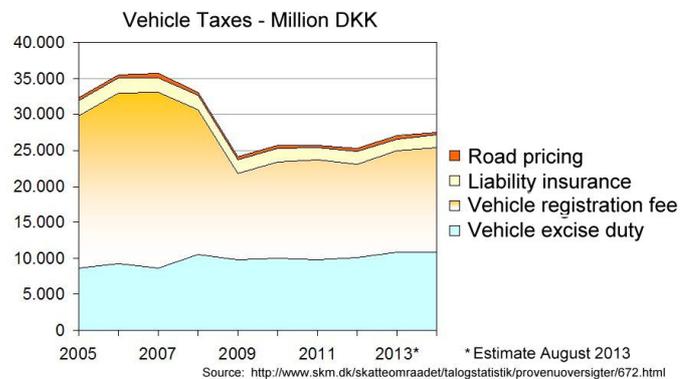
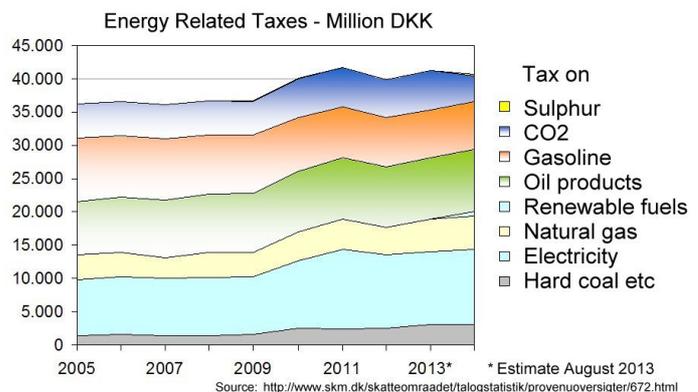
The preparation of collecting the bio-fuel tax has already revealed complications, such as people buying woodchips for the garden or laths for a fence would have to prove to the tax authorities that these particular items would not be used for heating purposes. Due to such problems the implementation of the new tax has been postponed.

### An Increasing Challenge

It is obvious that much larger problems will arise when the targets of the energy policy are met. Therefore it is high time for a public debate of the future tax replacement policy.

Main results for the future Danish energy systems have been presented by the Danish Energy Agency<sup>1</sup> and by the Danish Economic Councils<sup>2</sup>. The results include future energy demand, fuel consumptions and cost estimates but there are no calculations or considerations on the necessary future tax replacement policy.

Let us assume that in some years from now important sources of energy related taxes have decreased to half the level in 2014. It could be carbon emission and consumption of gasoline, oil products, natural gas and coal, and it could be registration of new cars and annual vehicle excise duty. If the replacing technologies are duty free the loss of revenue for the Danish state could be 27 billion DKK.



<sup>1</sup> Danmarks Energifremskrivning 2012, Energistyrelsen, 11-10-2012

<sup>2</sup> Baggrundsnotat til Energifremskrivning, De Økonomiske Råd, 27-2-2013

One solution could be to double the present tax levels. It is doubtful if this is realistic, and it is almost certain that no politician would defend that target today.

Another solution could be to move the taxation downstream from purchase of commodities to end-user services. Road pricing and electricity taxes are independent of technology. Space heating is more difficult because more expensive heating by gas and district heating would encourage creative alternatives which are independent of the public infrastructure. Therefore bio-fuels have been included in the security of supply tax, but due to the complexity this solution seems to be a troublesome way to go.

It would be a step further downstream to introduce a taxation per m<sup>2</sup> of heated area like the vehicle excise duty which is completely independent of how much the car is used. Even this solution will probably face strong political resistance.

There is obviously a strong need for the development of fair and practical taxation methods for energy and cars.

### **A Vicious Circle of Increasing Consumer Expenses**

The taxation system is designed to support cleaner, but also more expensive, energy technologies. The incentives create a new consumption pattern with lower tax revenues. Therefore the tax level will be raised and the end-consumers must pay both the full tax and the more expensive solutions. The outcome will be steadily increasing consumer expenses. This result was never highlighted in the energy plans.

### **A Call for Ideas of a Tax Replacement Policy**

The Danish Ministry of Finance is known to plan the public revenue in the long term. Experts have probably already analyzed alternative taxation models, but so far I did not find any plan for the future taxation for energy and transport sectors in Denmark.

In order to pave the way for a better informed debate this note is a call for ideas and plans of possible future taxation models including estimates of their consequences for end-consumers.