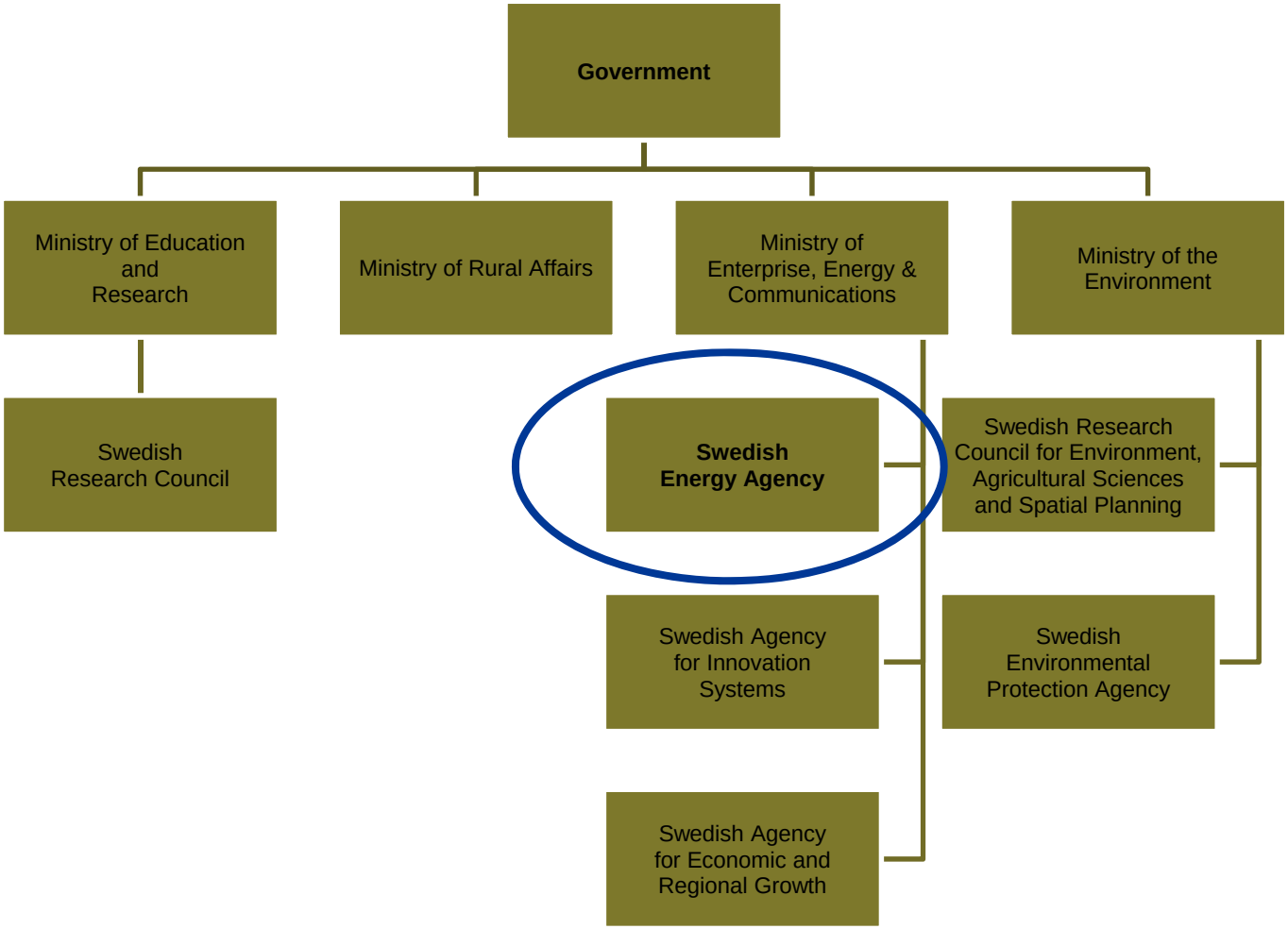
The Swedish Energy Agency

Large Scale Demonstration Projects in Sweden

Anders Lewald
Swedish Energy Agency

Swedish Energy Agency

Main public players in Energy RD&D



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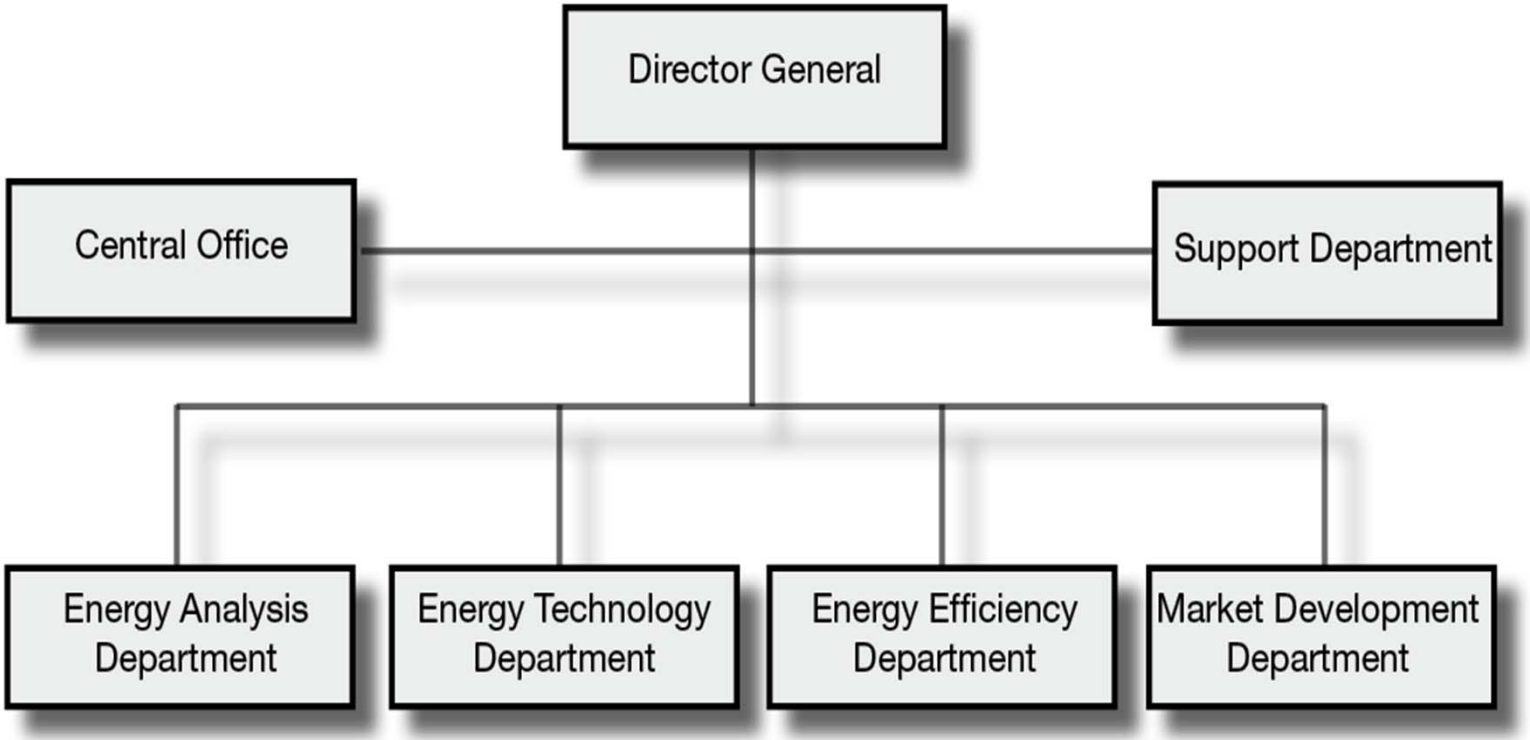

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Mission of the Swedish Energy Agency

- Carry out the Swedish national energy policy
- Promote the development of Sweden's energy system so that it will become ecologically and economically sustainable

"Energy must be available at competitive prices and energy generation must make the least possible impact on people and the environment"

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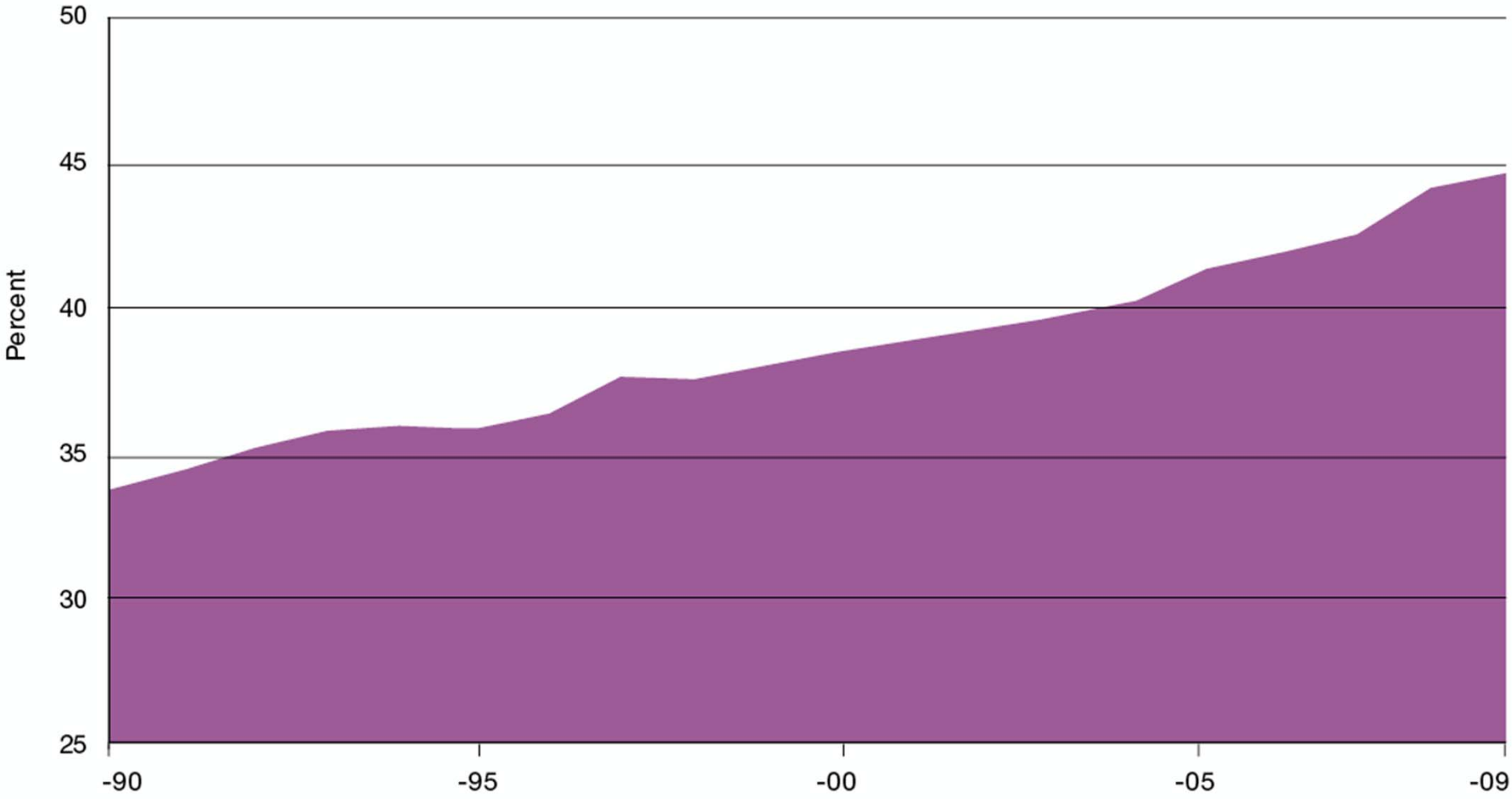
Figure 11 Sweden's total proportion of renewable energy use, 1990–2009



Source: Statistics Sweden and the Swedish Energy Agency.

Note: The proportion for 2009 is based on short-term statistics, and is therefore subject to change.

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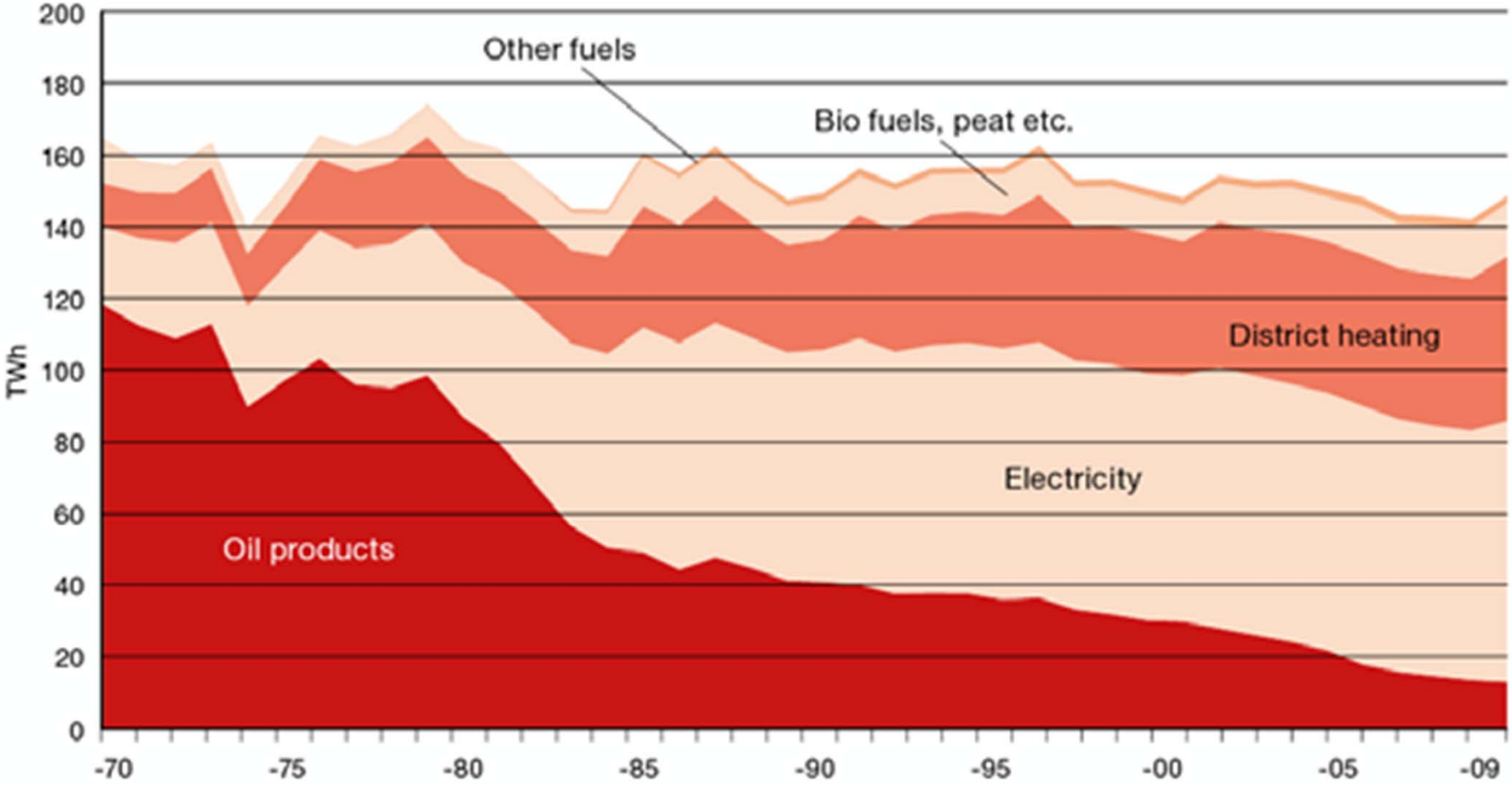
Figure 13 Final energy use within the residential and service sectors etc, 1970–2009



Source: Statistics Sweden and the Swedish Energy Agency.

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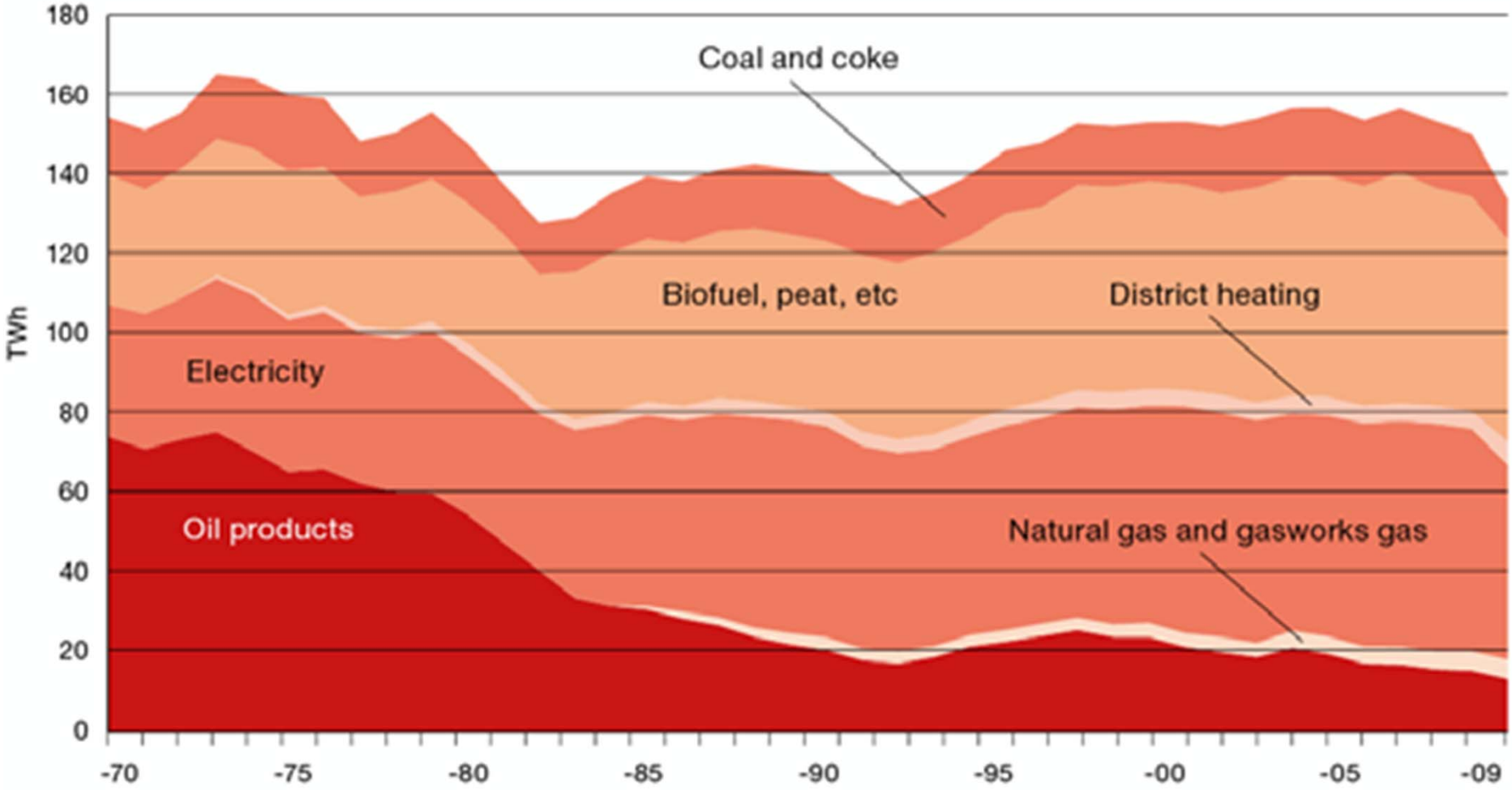
Figure 14 Final energy use in industry, 1970–2009



Source: Statistics Sweden and the Swedish Energy Agency.

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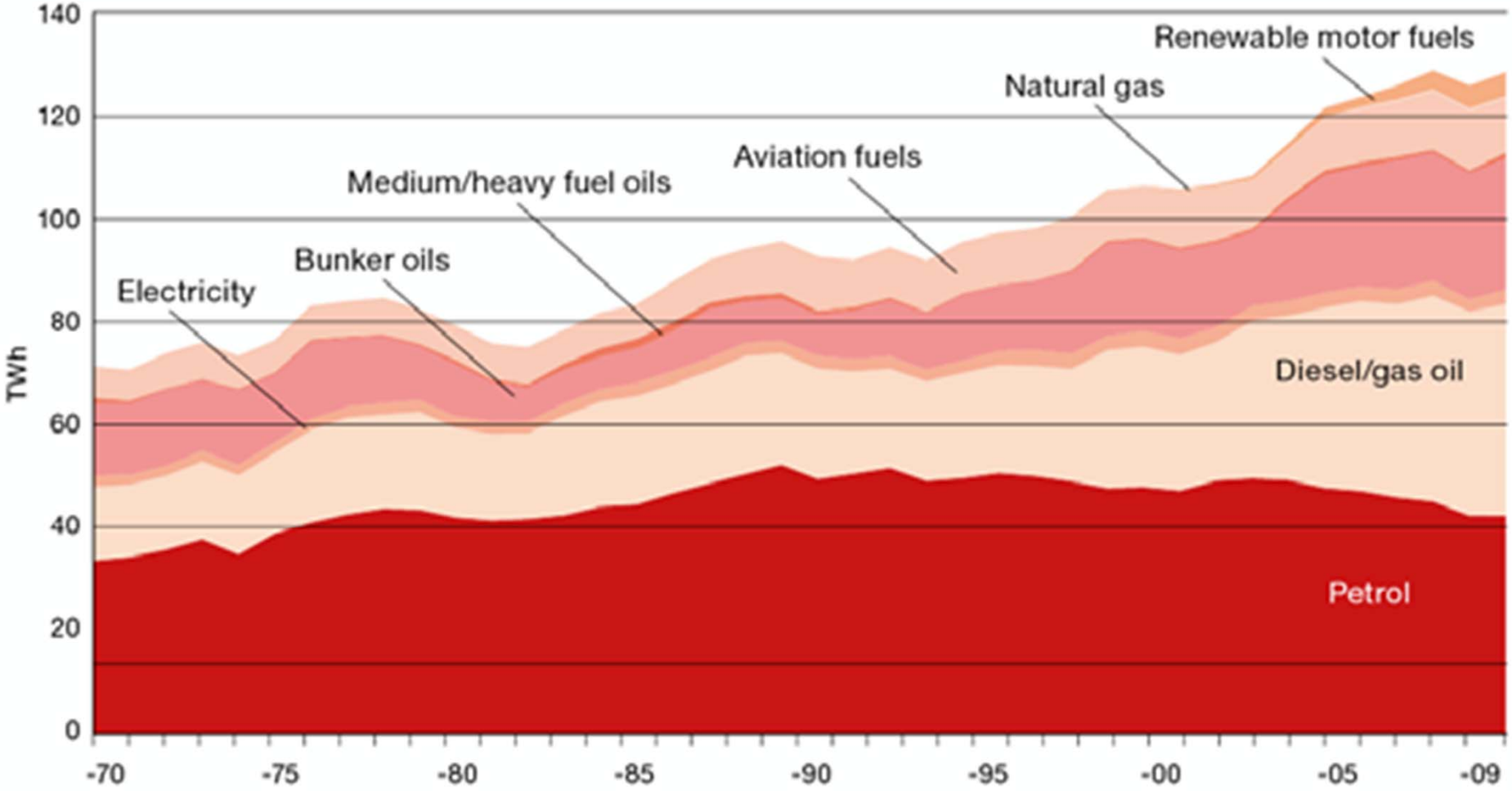
Figure 19 Final energy use in the transport sector 1970–2009, including international transports



Source: Statistics Sweden and the Swedish Energy Agency.

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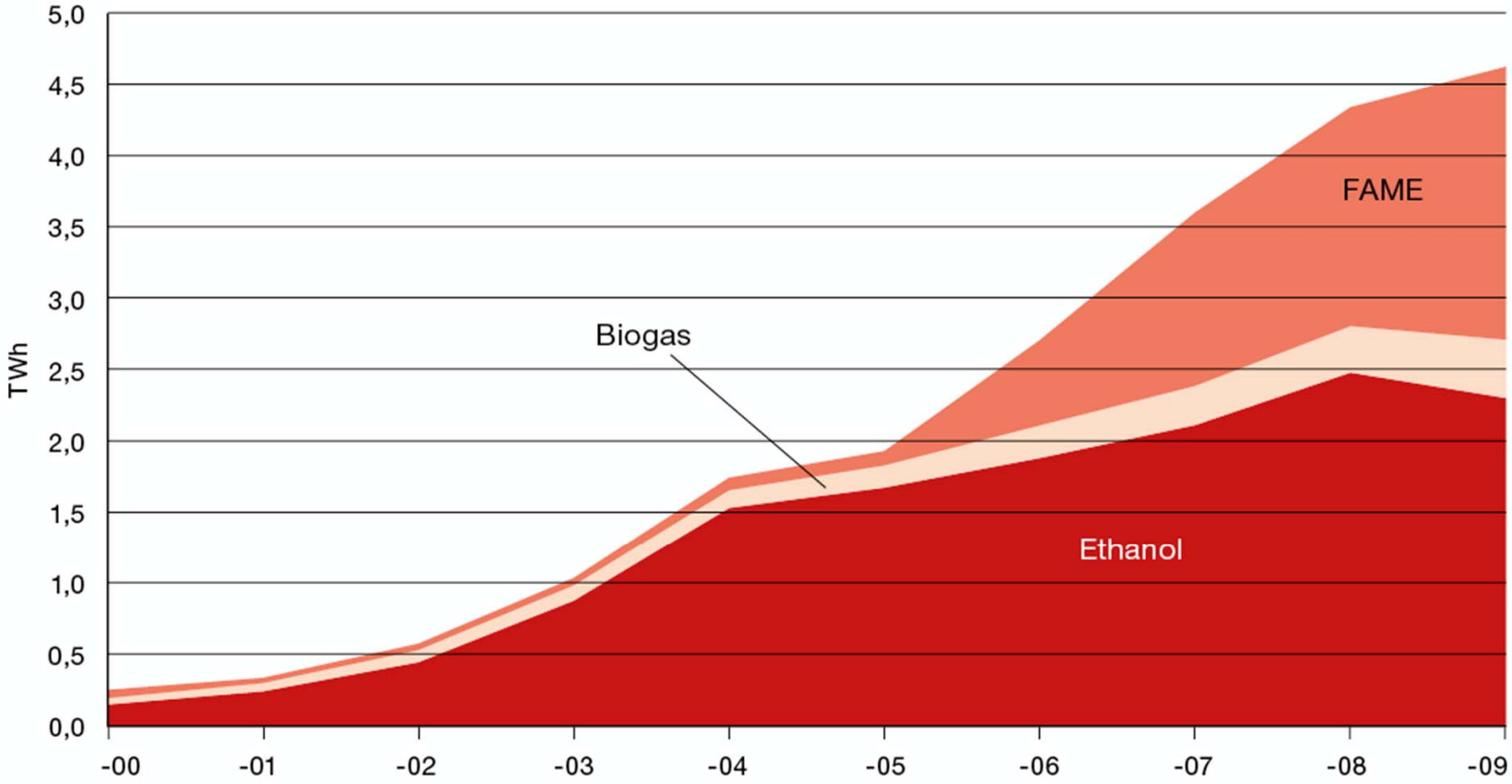
Figure 20 Final energy use of renewable motor fuels, 2000-2009



Source: Statistics Sweden, the Swedish Energy Agency and the Swedish Gas Association.

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Energy RD&D funding
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- Third largest public research funder in Sweden
- 1% of world energy research
- Covers all aspects of research, from basic research to implementation
- Funds year 2011: 144 Million €
- Some 40 programmes and about 700 projects running
- In-house priority settings and evaluation of proposals
- Six focus areas

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Policy on energy R&D

Sweden's policy on energy R&D aims at:

- building the scientific and technological basis for a transition to a sustainable energy system, and at:
- supporting the development and commercialisation of new energy technologies and services

Focus Areas of Swedish Energy Research

- Energy System Studies
- Buildings as Energy Systems
- Transport Sector
- Energy-intensive Industry
- The Power System
- Biomass in Energy Systems

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Large demonstration facilities

- 2008 a call was released for large demonstration facilities
- Government granted 1 101 BSEK to 5 projects 2009/10
- Investment in demonstration facilities to commercialize second generation biofuel and energy technology solutions

Chemrec AB

The project aims to extract biofuels from black liquor at a facility in Domsjö, Örnsköldsvik.

Authorised support: a maximum of SEK 500 million.

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Göteborg Energi AB

The project aims to build and run a facility for the transformation of low-quality forestry materials to high-quality biofuels – bio methane.

Authorised support: a maximum of SEK 222 million.

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Södra Cell AB

The project aims to provide a full-scale demonstration of the LignoBoost concept integrated with the factory in Mörrum.

Authorised support: a maximum of SEK 90 million.

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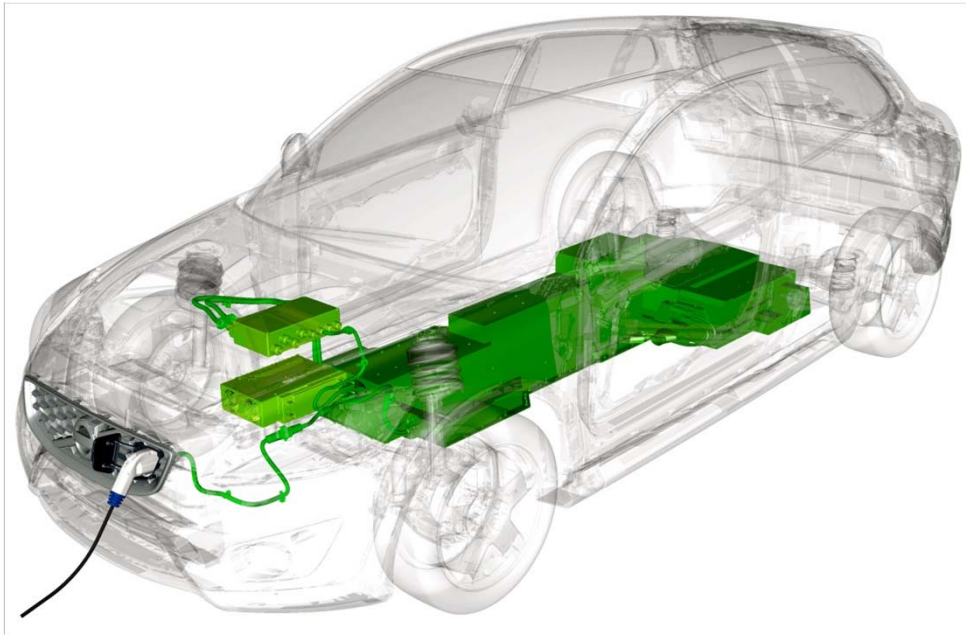
Volvo Car Corporation

The project aims to implement 50 electrical vehicals for testing in urban environment

Authorised support: a maximum of SEK 150 million



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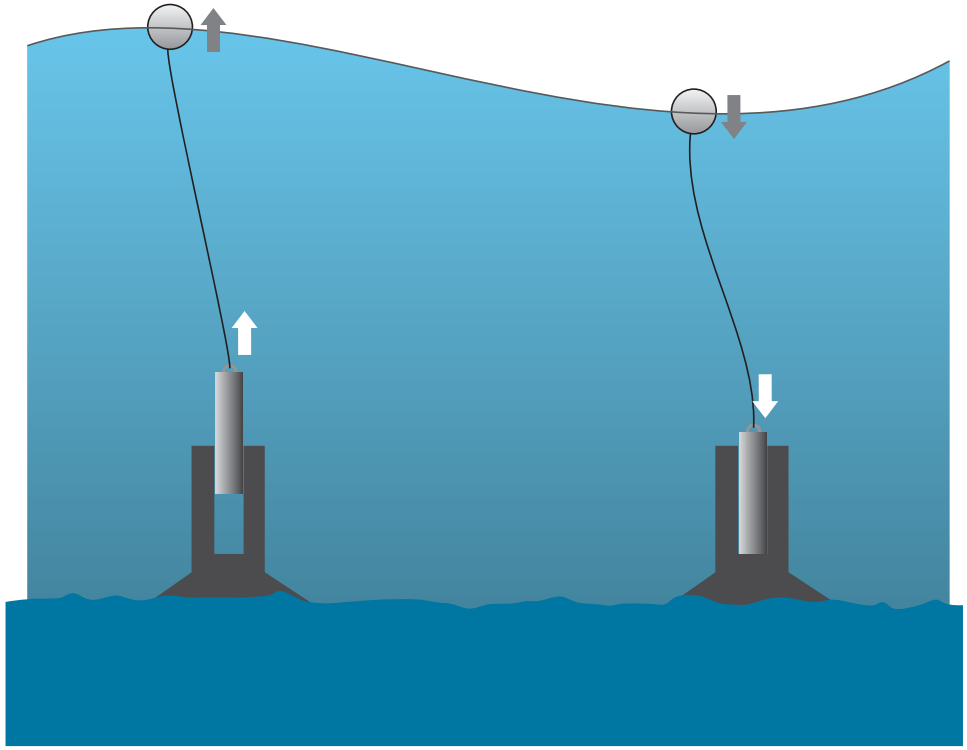
Seabased Industry

Demonstration plant for renewable energy extraction from ocean waves, a full-scale wave power plant for large-scale electricity production with an output of 10 MW

Authorised support: a maximum of SEK 139 million



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