

# Energy politics in Finland and the role of heat pumps

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21 May 2019



Ministry of Economic Affairs  
and Employment of Finland

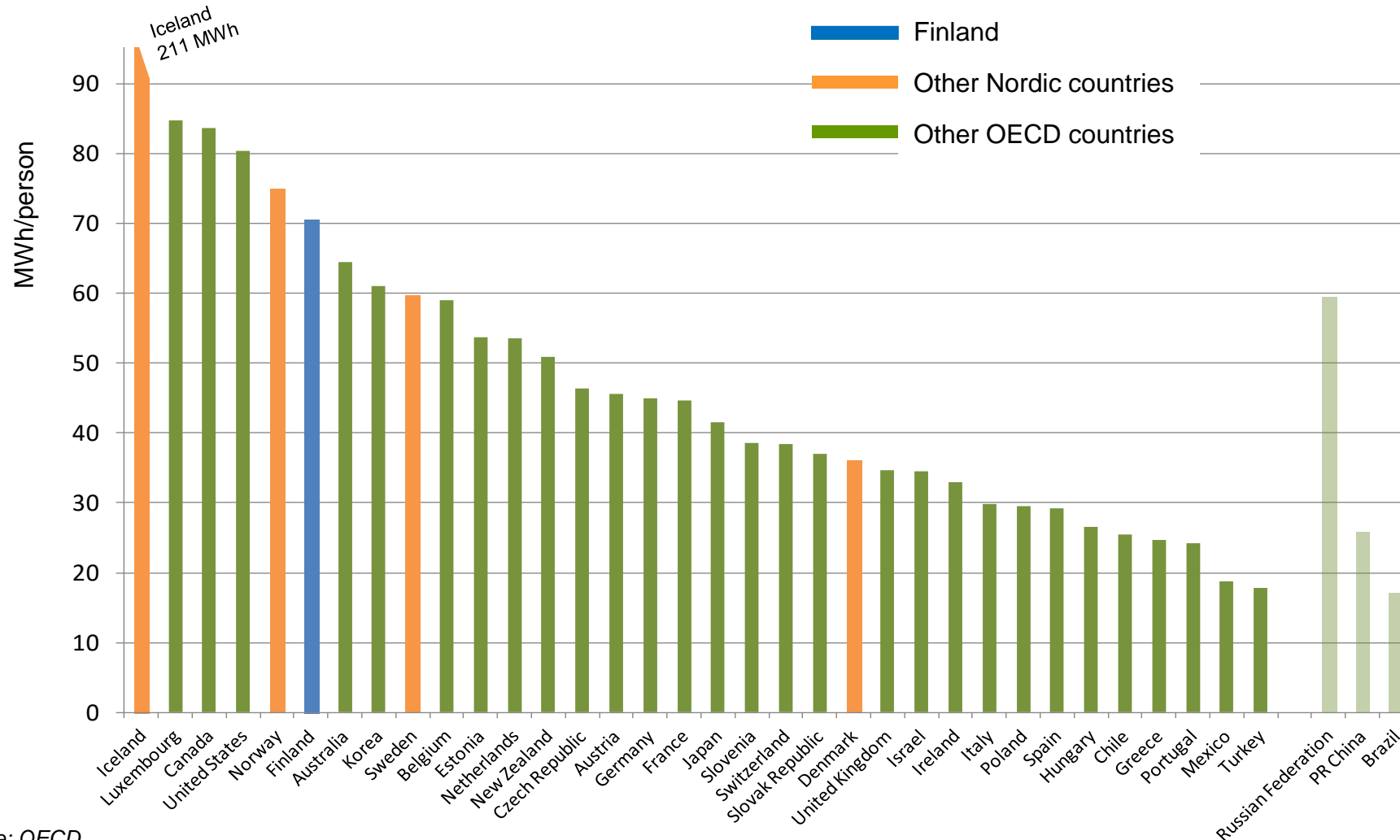


# Heat Pumps and Renewables in Finland

- **Finland has very high share of Renewable Energy, over 35 %**
  - Hydro power modest, big share of bioenergy from Forest Industry, HPs, wind, solar etc.
  - Energy Policy is very much market based – support only when needed for promotion
- **Goal 1 million HPs in Finland, soon reached**
  - Everybody (almost) has knowledge of HPs basic and economy (own, friend, neighbor etc.)
- **HPs produce annually in Finland more renewable energy than wind power, still now!**
- **HPs have had very little public economical support (for households tax deduction from work; in ground heat solutions substantial, for big HP solution investment aid for pilots)**
  - Same pattern continues: tax deduction for households, investment aid for new (big) solutions
  - Helsinki heated 90 % by District Heating with coal, natural gas and big HPs. Phase-out of coal by spring 2029 latest (legislation) increases the share (big) HPs – how much, is to be seen...

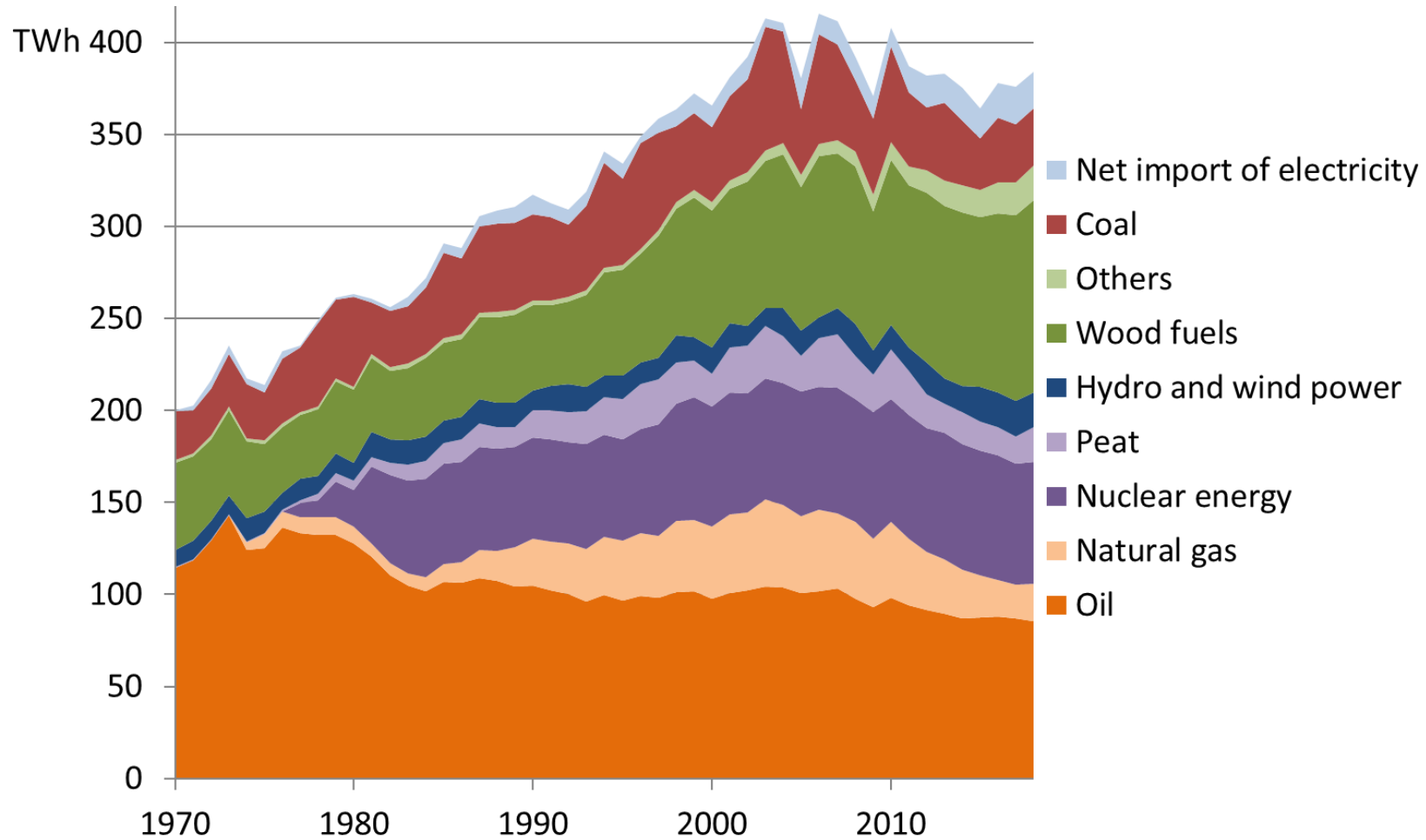


# Energy consumption per capita



Source: OECD

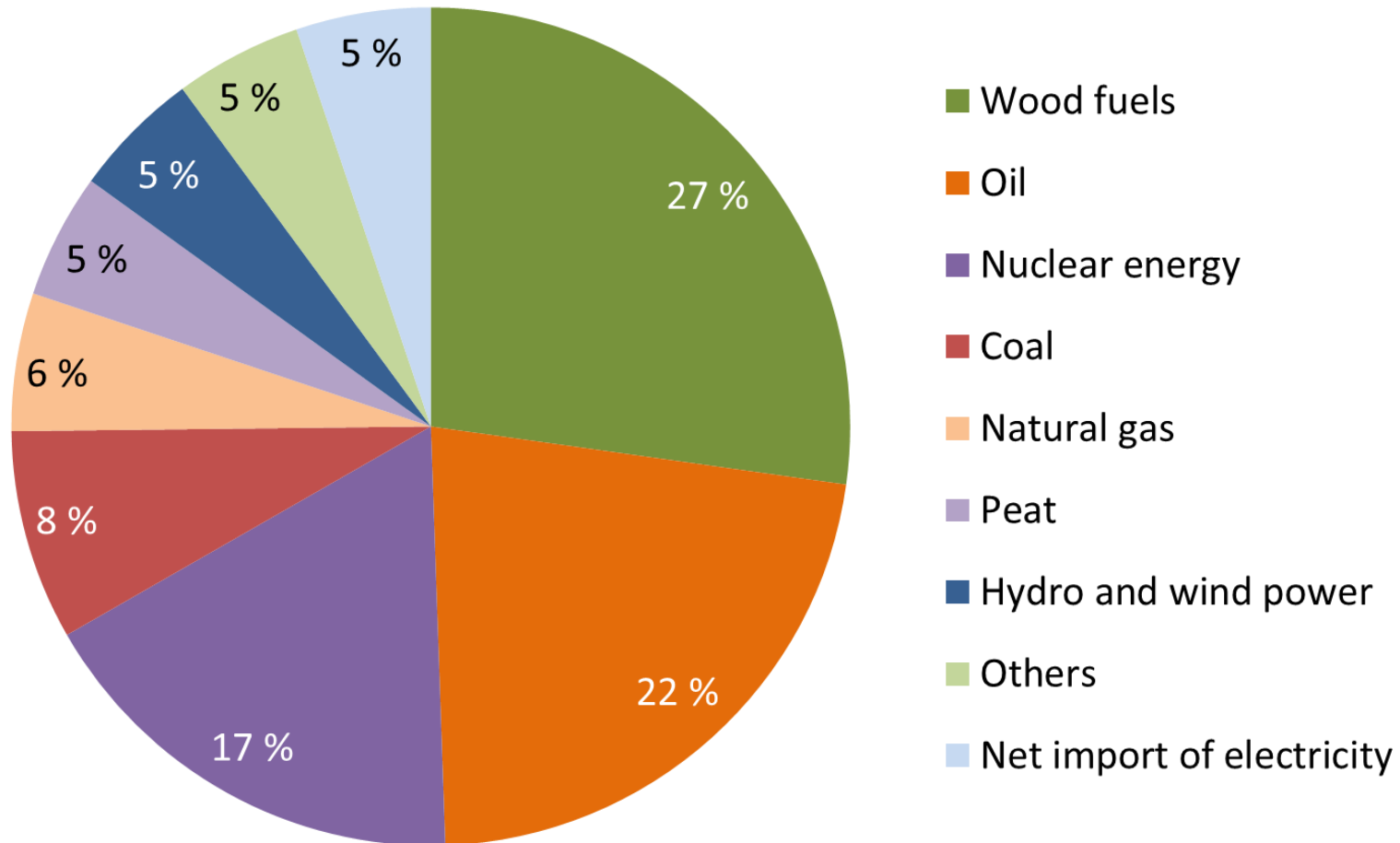
# Primary energy supply 1970 – 2018, HPs in “others”



Source: Statistics Finland

# Primary energy supply 2018

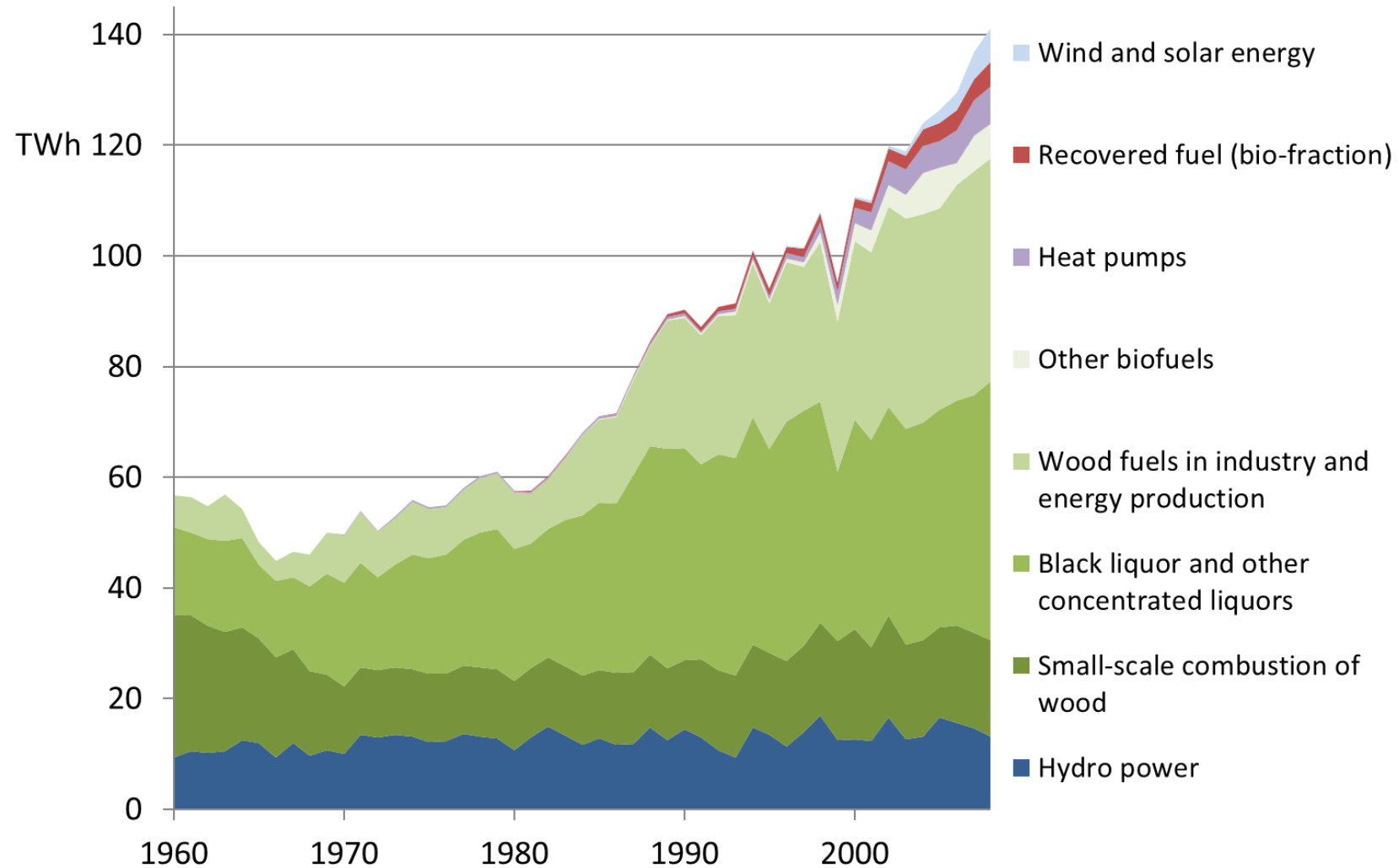
total consumption 384 TWh, HPs in “Others” ~2 %



Source: Statistics Finland



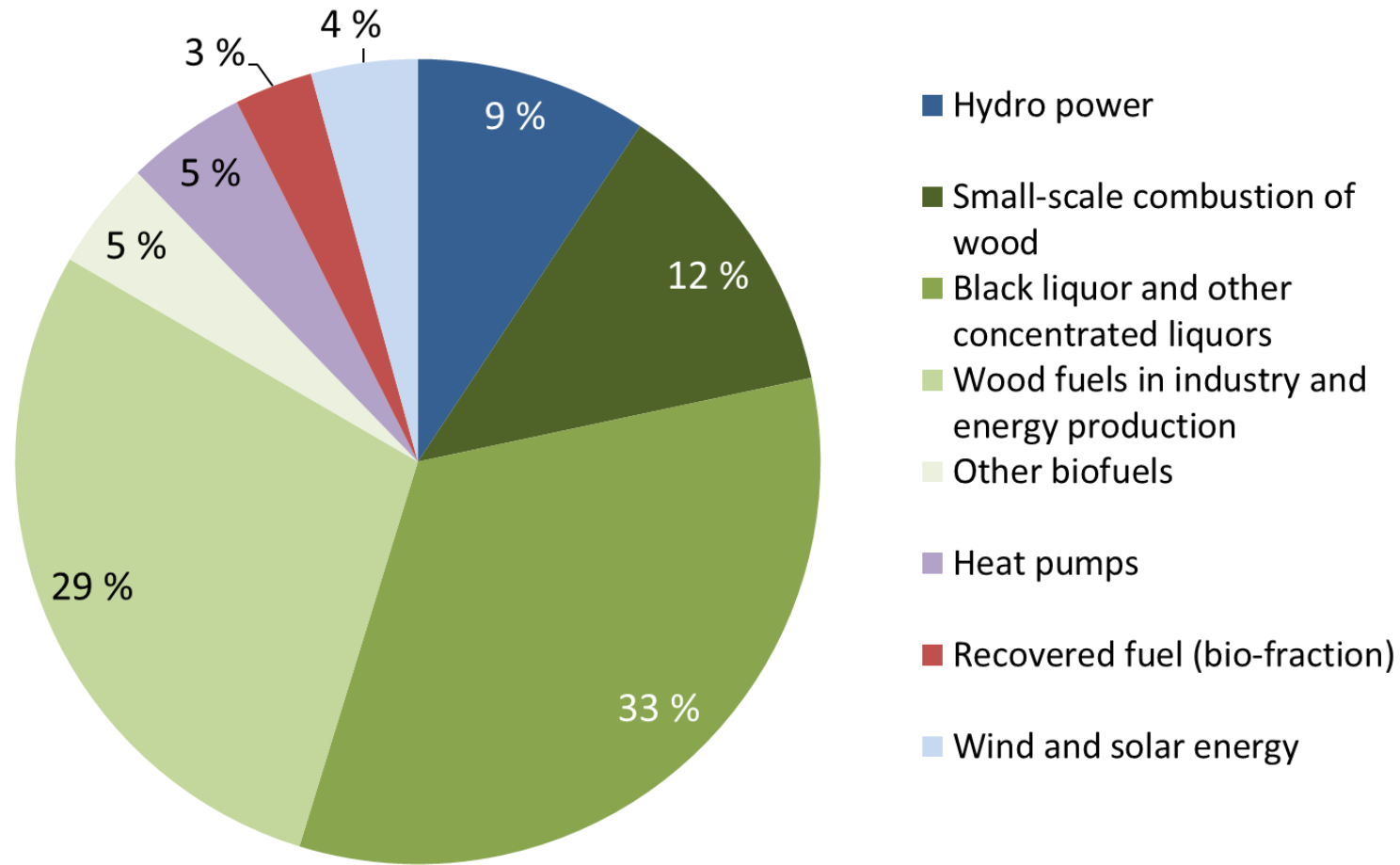
# Renewable energy 1960 – 2018



Source: Statistics Finland

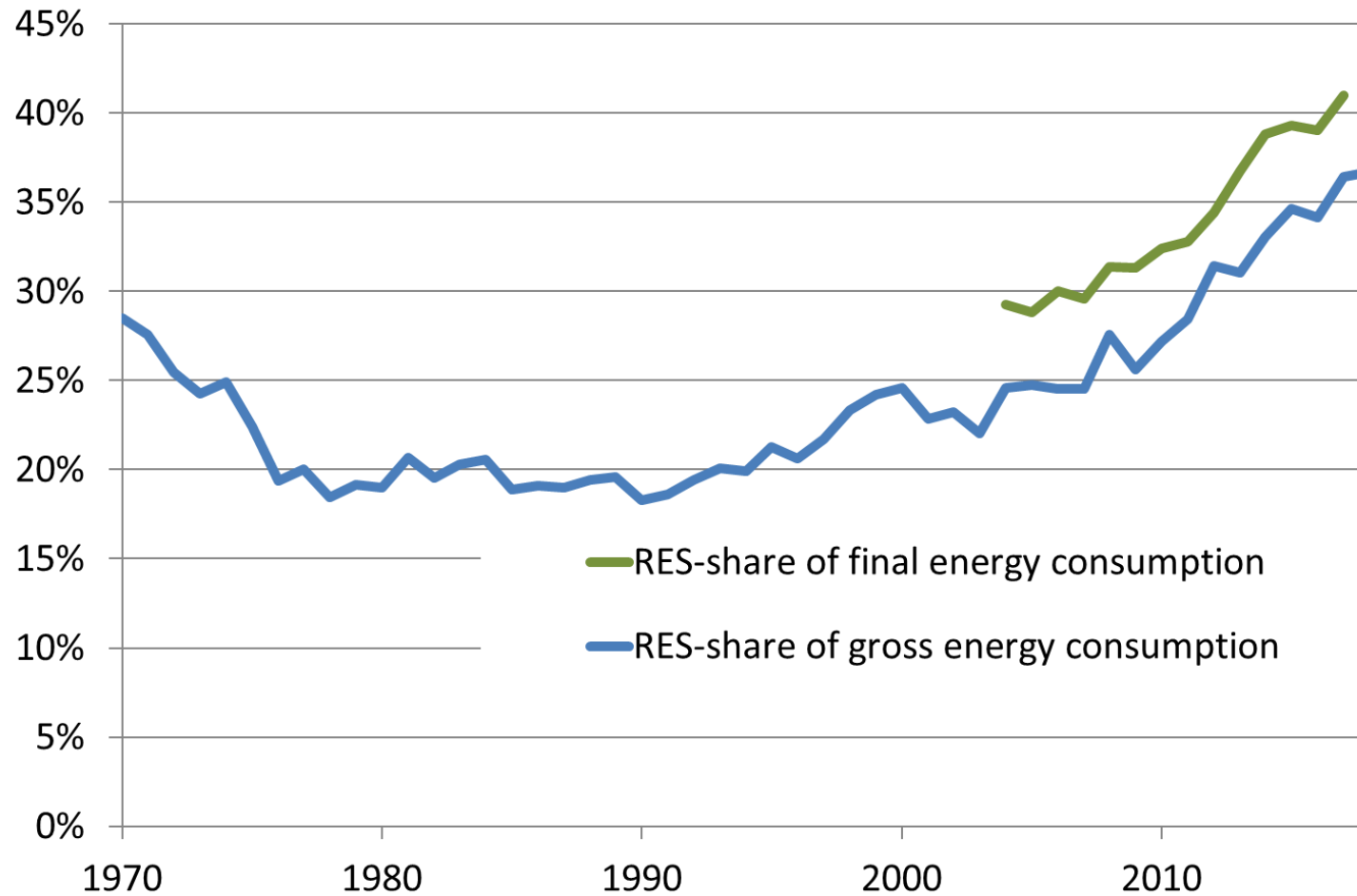
# Renewable energy 2018

## 141 TWh



Source: Statistics Finland

# Renewable energy share of final and of total energy consumption



Source: Statistics Finland, Eurostat





**Thank you!**

**Kiitos!**