Renewable energy for local communities

Karoliina Auvinen, Finnish Local Renewable Association

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Finnish Local Renewable Energy Association

- Founded in 2013
- Goal is to make the use of renewable energy as easy as possible for Finns.
- Association gathers actors of renewable energy and smart energy use for cooperation to gain more visibility and policy influence.
- Activities: commucations, working groups, seminars, lobbying, projects
- We are interested in partnerships!

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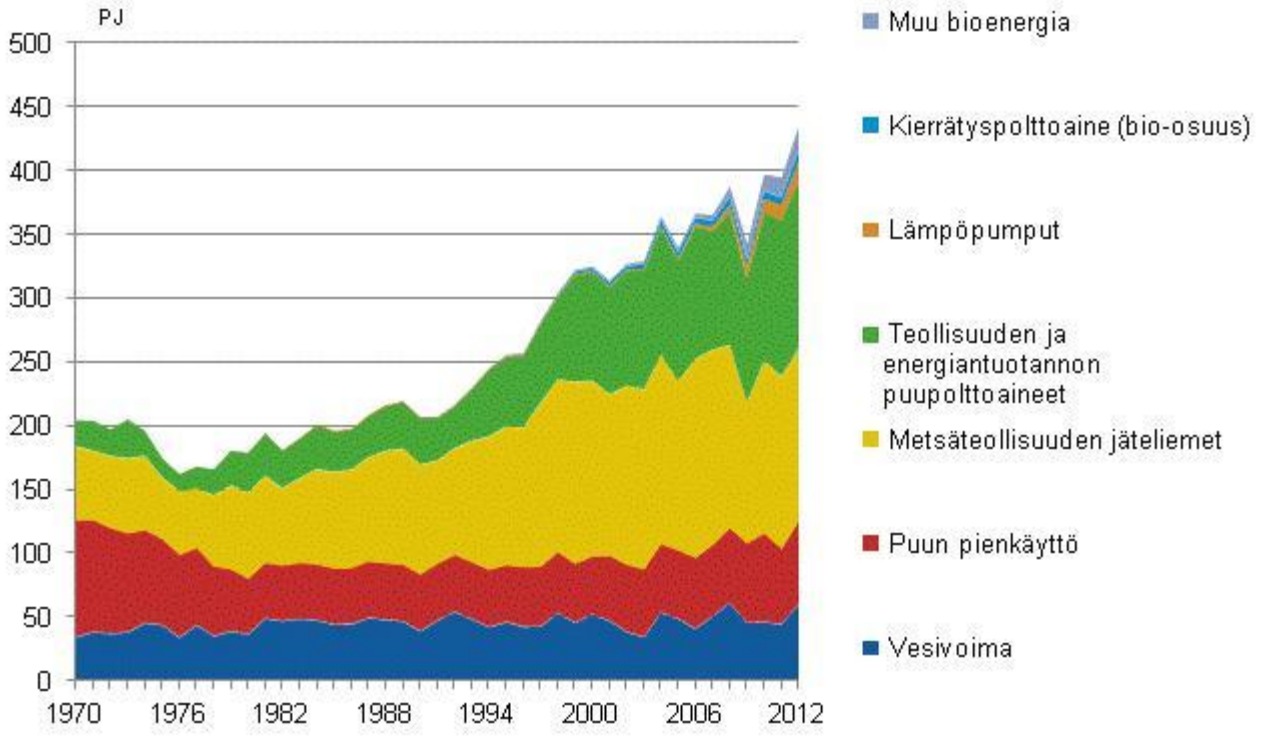
Renewable energy is growing in Finland



SULPU
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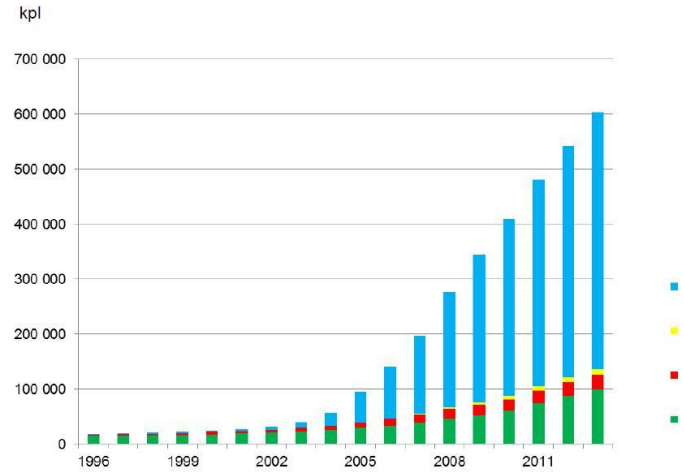
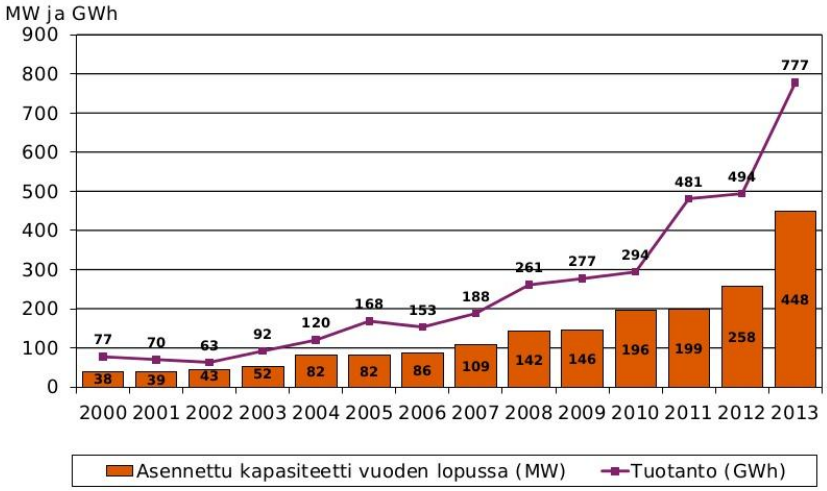


Tuulivoimatuotanto ja kapasiteetti vuosittain



Larger solar electricity installations in Finland

- Astrum business center, Salo: 322 kW
- ABB Oy, Helsinki: 181 kW
- Lappeenranta University of Technology LUT: 169,5 kW
- Vaisala Oyj, Helsinki: 101 kW
- Skanssi shopping center, Turku: 70 kW
- Kiilto Oy, Lempäälä: 66 kW
- Environmental Office of Helsinki: 60 kW
- Bus shelter, Espoo: 55,2 kW
- Vacon Oyj, Vaasa: 55 kW
- Swimming hall, Pori: 52,50 kW

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100% renewable Finland is possible

Opportunities

- Finland's energy imports cost annually 8,5 billion euros (approx. 4 % from GDP), mostly fossil fuels from Russia -> efficiency and renewable energy can improve trade balance
- economical crisis and 300 000 unemployed people -> transition to renewable energy can create 50 000 new jobs by 2030
- New source of income and jobs for local communities, especially in rural areas
- Great export potential

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Renewable energy benefits local economy

- There are 320 000 houses that are still heated with oil or electricity. If they would change to ground heat pumps, that would create employment equivalent of 1 500 work years and it would improve Finnish trade balance by 260 million euros.
- Kuopio Energy case: If coal would be replaced by bio, the city of Kuopio and regional companies involved in bioenergy value chain would benefit 6,2 million euros more in yearly basis. Furthermore, bio would create 3 times more jobs than coal.

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Local energy project cases

- Kempele
- Jepua village
- Mustarinda art residency
- Saarelan Energia

- Many local energy projects are still on paper or have failed, but interest is growing and new projects are emerging…

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Challenges

- “Big is beautiful” culture
- New solutions and technologies = uncomfort zone for many people
- Fear of risks and mistakes in public procurement
- Carbon price, fossil fuel costs or investments are not seen as risks

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- Financial market undeveloped, for example green loans or renewable energy bonds are not available yet
  - leasing for energy efficiency improvements and heat pumps emerging
- Lack of economical incentives for distributed generation
- Different construction permitting processes around the country
- Taxation for 50 kW-2MW production units and reporting bureaucracy
- “Smart” metering doesn’t work

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Proposals

- New energy policy for growth and employment
  - endorses Finnish own resources such as technology, knowledge, employment
  - based on total energy costs instead of end-user electricity prices for energy intensive industries
- Economical level playing field:
  - Less incentives for fossil fuels and energy wasting
  - More incentives for distributed renewable energy and smart energy use
- Free legal counselling for municipalities and public organizations about procurement processes
- Unified permitting processes by law
- Metering variations can be fixed with net billing regulation (minimun in one hour basis)

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Thank you!

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References

- Halme, Hukkinen, Korppi-Tommola, Linnanen, Liski, Lovio, Lund, Luukkanen, Nokso-Koivisto, Partanen, Wilenius. 2014. New energy policy for providing growth and employment. https://jyx.jyu.fi/dspace/bitstream/handle/123456789/43432/New%20energy%20policy%20for%20providing%20growth%20and%20employment.pdf?sequence=1
- Gaia Consulting. 2014. Energiainvestointien alue- ja kansantaloudellinen kannattavuustarkastelu. http://www.sitra.fi/julkaisut/Selvityksi%C3%A4-sarja/Selvityksia73_2p.pdf (English summary available)