Eesti Taastuvenergia Koda

Renewable energies as source of growth and investment in Estonia

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EREA´s introduction

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- Established in May 13 2011
- 10 members incl 5 associations

Estonian Biogas Association

Estonian PV Energy Association

Share of RES in H&C, E and T in 2016 vs 2020 and 2030 targets (GWh)

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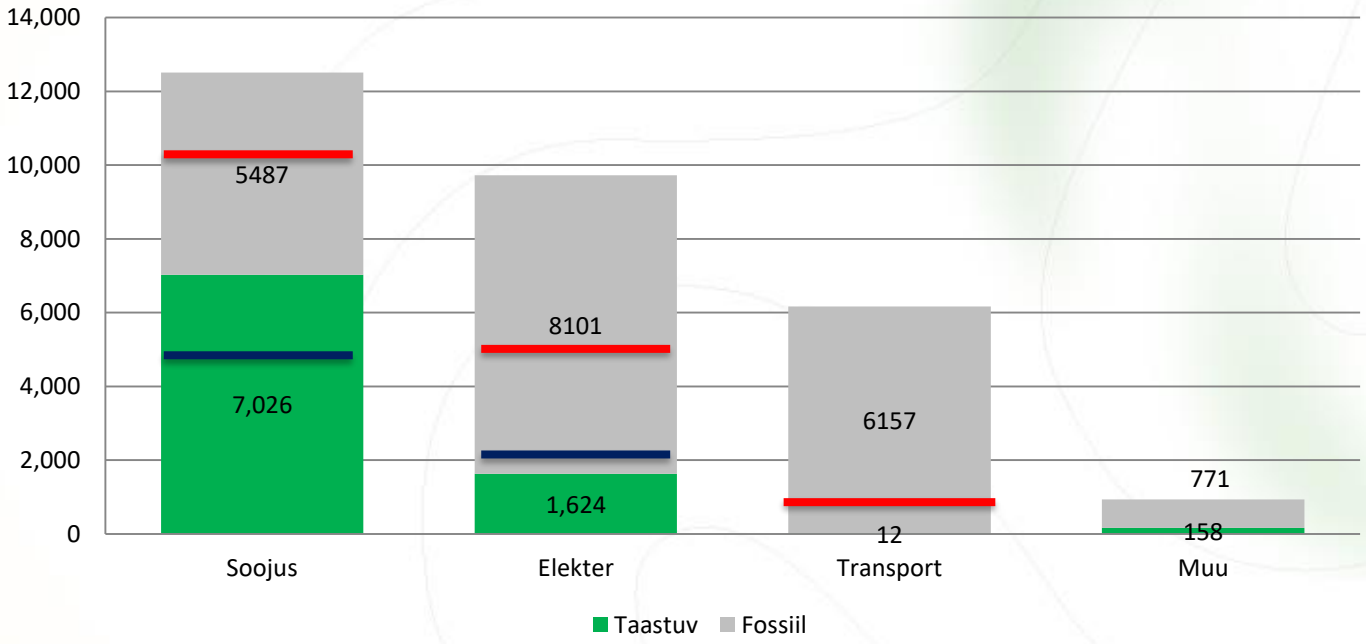

- RES H&C: ↑51,2%
- RES-E: ↑15,5 %
- RES-T: 0,4%

2020 eesmärgid

2030 ENMAK eesmärgid

Annual and cumulative addition of RES-E 2002-2017 (MW)

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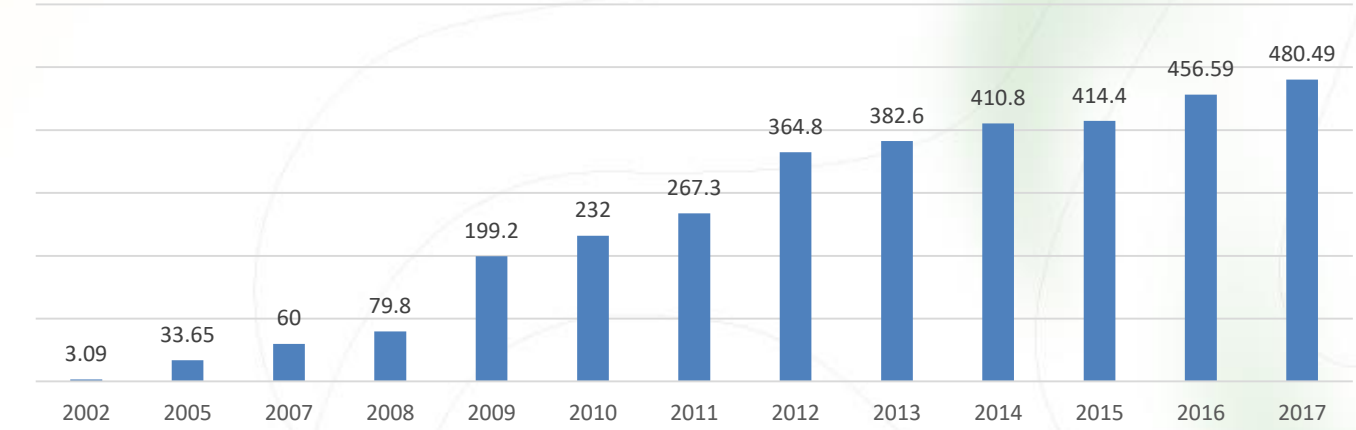

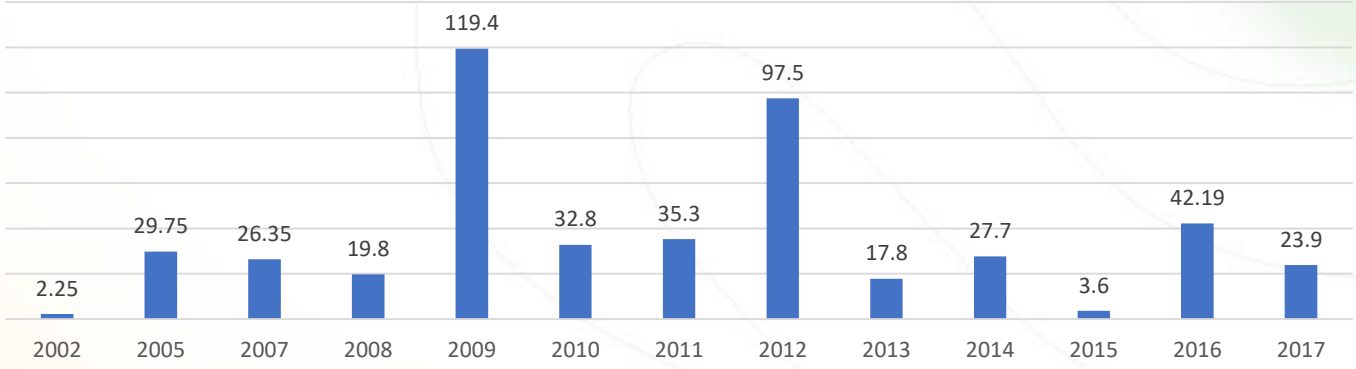

Cumulative investments into RES-E capacities 2007-2017 (M€)

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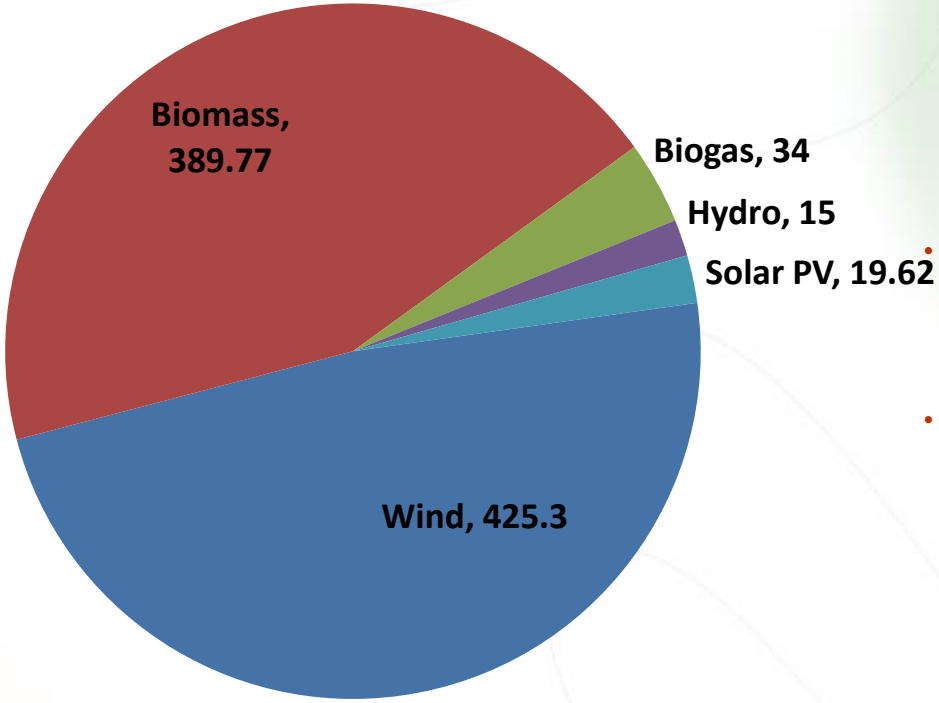

- **Wind investments 425,3 M€, biomass CHP 389,77 M€**
- **2017 investments into RES-e 46,39 M€.**

RE impact on the Estonian economy

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Investments into RES-E	• 883,69 M€ 2007-2017
Tax revenues	• RES-Electricity sector contributes annually 20,8 M€ to public purse
Savings on the heating bills	• Ca 25% savings compared to fossil fuels • Annual savings for the consumers 40 M€
Cheaper electricity spot prices	• RES-E pushes down spot prices
Reduced foreign trade deficit	• 100 M€ less importe fossil fuels annually
Jobs	• 3100 created jobs in the country-side

RE100% by 2030

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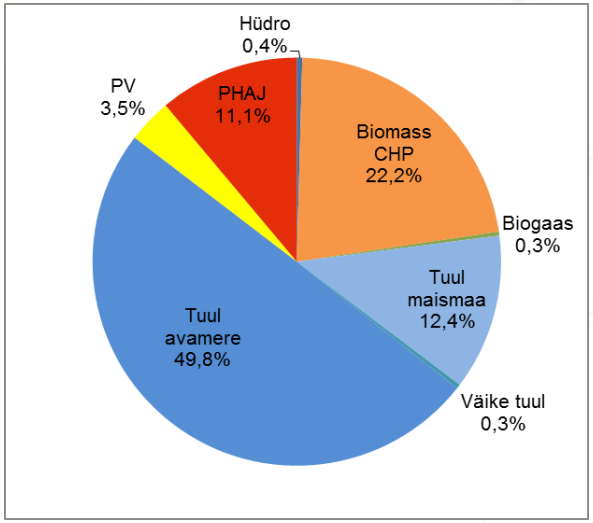
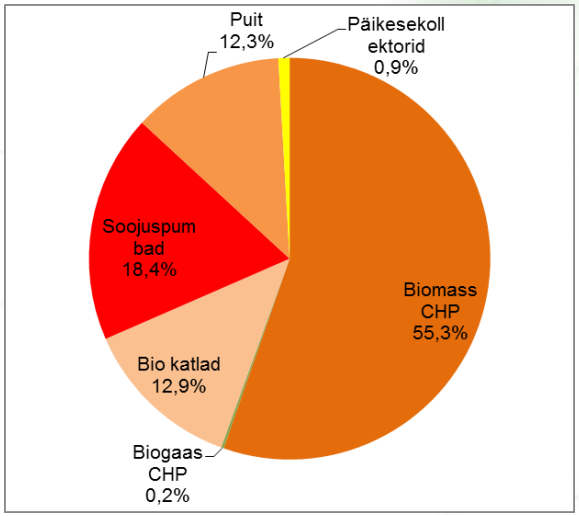
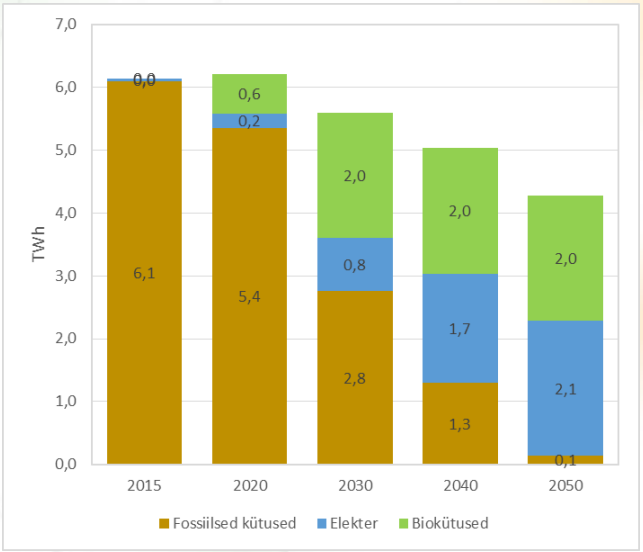
Full transition to renewables by 2030 is technically feasible, economically succsessful and sustainable.







- **Electricity production according to 100% RE by 2030**
- **Heating and cooling production according to 100% RE by 2030**
- **Transportation sector developments**

Investments by 2030

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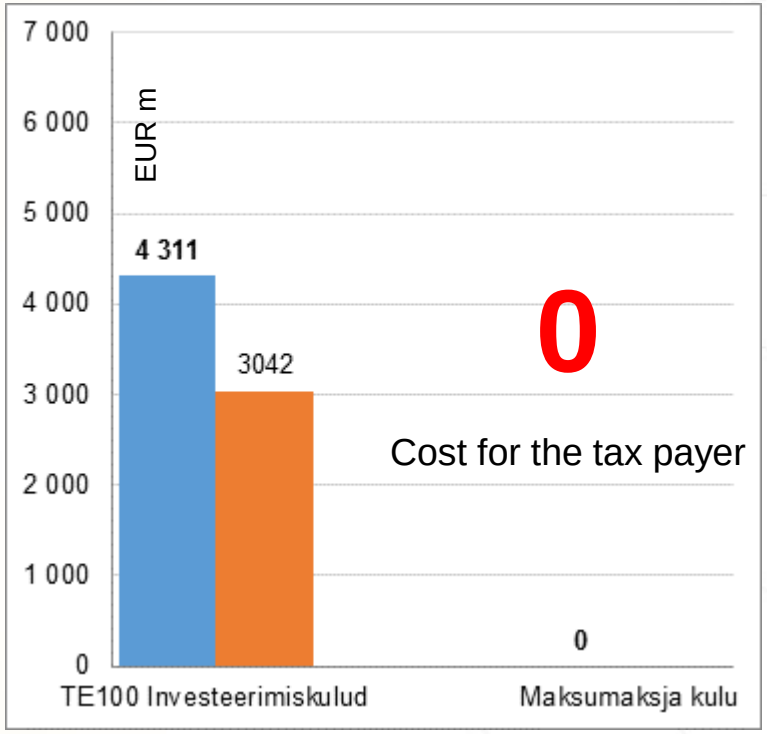
RE100% scenario



The total cost of RE100 for 2030 is 3 041 million Euros.

- Revenues from emissions trading– 188 million EUA units during 2017-2030. Revenues would reach 2,4 billion Euros.
- EU structural funds - 2020-2030 magnitude of 215 million Euros
- Flexibility mechanisms of Renewable energy Directive– magnitude of 2.5 billion Euros to finance Estonia´s offshore wind projects
- Private capital – 50% of the investments

Economic impact

GDP growth	Increases GDP growth on average 2,2% in the period of 2017-2030 (500 M€) annually
Increase in the purchasing power of households	The purchasing power of households will increase annually by 368 M€
Improves the attractivness of the country	In the eyes of investors and talents, it's raising the country's attractiveness
Improves the trade balance	Reduces energy imports annually by 604 M€
Net government revenues	Increases net government revenues by 139 M€ per year

Conclusion

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- Renewable energy sector has a major impact on the economy
- Full transition to renewable energy (RE100) in the electricity and heating sector in Estonia is economically viable and technically feasible by 2030
- RE100 production portfolio is competitive
- RE100 requires investments in the amount of 3042 million Euros, necessary investments can be financed through revenues from private capital and alternative sources of funding
- The potential of renewable energy in Estonia is still largely untapped

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Thank you!

Estonian Renewable Energy Association

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