

Sustainable energy actions for islands

Energy efficiency in islands

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Energy efficiency

- Demand management importance.
- Simple in concept – complex in application.
- Main areas of intervention:
 - Buildings
 - Transport
 - Public lighting
 - Smart grids in islands

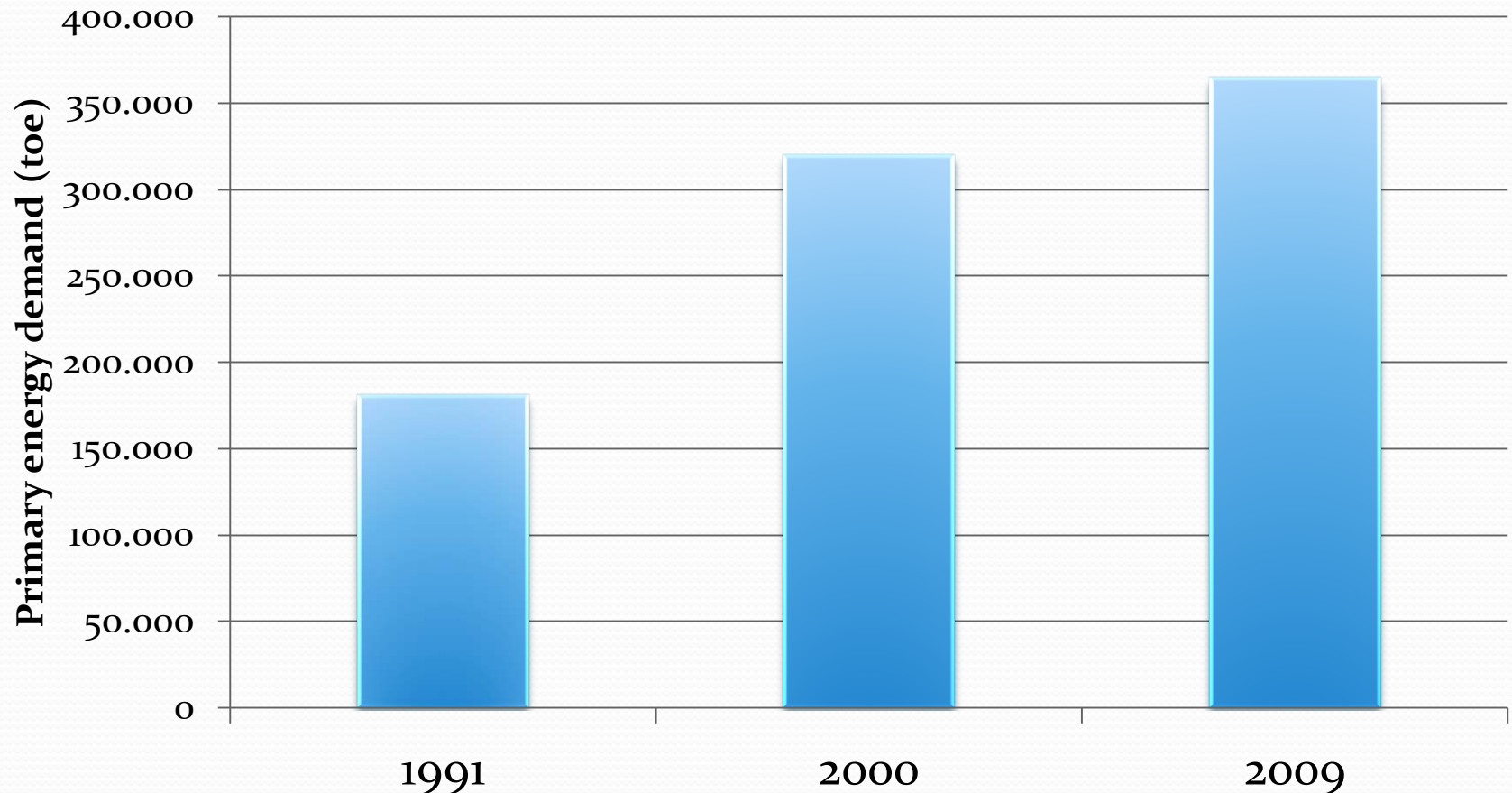
Barriers to energy efficiency

- **Cultural:** energy efficiency is sometimes seen as austerity.
- **Legal:** Constraints on contracting laws (ESCO).
- **Human resources:** energy efficiency sometimes requires high qualifications.
- **Investments:** some energy efficiency actions require high investment.
- **Energy prices:** some energy prices are not high enough to promote energy efficiency.

Energy efficiency in islands

- Reduction of importation and external dependence.
- Reduction of costs to companies, families and Public Administration.
- Improvement of competitiveness of companies and islands economy.
- Catalyse innovation and creates business opportunities.
- Creates qualified jobs in the islands.
- Promotes local added value in the economy.
- Promotes quality of life.

Madeira: Evolution of energy demand



In 18 years, primary energy demand has duplicated in Madeira

Madeira: Energy efficiency in numbers

- Fossil fuel importation: **200 Meuro/year**.
- Saving potential: **40 Meuro/year** (20%) in importation prices **70 Meuro/year in market prices**.
- Foreseen investment: **350 Meuro**.
- Taxes income (TVA, social taxes, IRS, etc.): **125 Meuro**.

Island sustainable energy action plan of Madeira and Porto Santo

- Objectives:
 - Improve energy of supply.
 - Reduce energy dependence from abroad.
 - Reduce energy intensity in GDP.
 - Reduce carbon dioxide emissions.
- Strategic guidelines:
 - Improve energy efficiency.
 - Increase local energy resources.
 - Diversify energy sources.
 - Increase capacity of energy storage.
 - Promote energy carriers with lower carbon content.



Conclusions