

Municipality of Santorini in the Pact of Islands

The project of Thirasia “Green” Island Community



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Vision of our Municipality

Signatory of the:

- ✓ Pact of Islands
- ✓ Covenant of Mayors



Implement integrated planning in the basic sectors of waste management and energy

- reduce the dependence of the island from energy imports
- implement energy saving and energy efficiency measures
- promote local energy production through small and medium scale RES installations aiming to cover 8% of the island's primary energy demand in 2020 with RES
- exploit waste as a resource
- minimize waste diverted to landfills

Island Sustainable Energy Action Plan (ISEAP)

Targets for 2020

- Reducing by 43% the primary energy demand in comparison to the BAU scenario
- Reducing by 30% the CO₂ emissions in comparison to the BAU scenario
- Meeting the 8% of the primary energy demand by renewable energy sources
- Meeting the 10% of the electricity demand by the use of local renewable energy sources



ISEAP of Santorini

Progress so far

- **Energy upgrade** of municipal buildings
 - Completed technical studies
 - Submitted applications for funding via European Regional Development Fund
- Support offered to **private investors** interested in the installation of PV parks on the island.



ISEAP of Santorini

Progress so far

Smart Grid Network

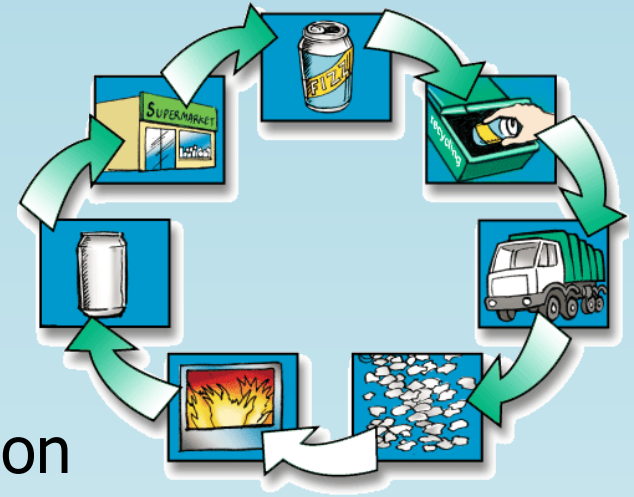
- One of the five Islands participating in the project
- Increase the portion of Renewable Energy Sources
- Less Emissions due to less consumption



Other actions

Waste Management Sector

- Route network Analysis and Optimization
- Increase in Recovery of Recyclable Materials up to 240% in the past two years (2010-2011)
- Home Composting Program for 100 households
- Information Awareness Campaign

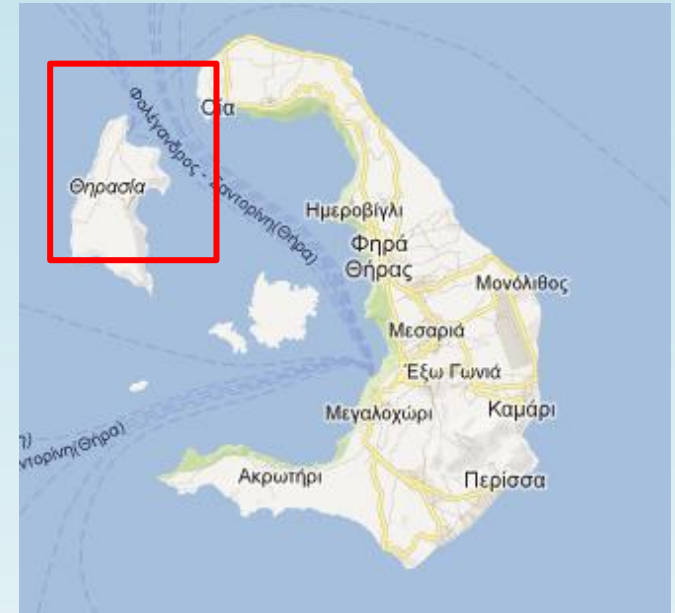


Thirasia

“Green” Island Community project



- Located Northwest from Santorini
- 260 permanent inhabitants
- Developing island community



Thirasia

“Green” Island Community project

The vision

Turn the island of Thirasia into a zero emissions “green” island community through the implementation of actions in three main axes:

1. Environmental protection – Sustainable transports – Climate change protection – Renewable energy sources
2. Protection and management of water resources
3. Protection of soil systems and management of solid waste

Thirasia

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1. Environmental protection – Sustainable transports – Climate change protection – Renewable energy sources

1.1. Building sector

More than 30 private houses and 5 municipal buildings to benefit from energy upgrade actions

- Thermal insulation of building envelope
- Replacement of window frames
- Replacement of inefficient heating and cooling systems
- Upgrade of lighting systems
- Installation of solar thermal systems for domestic hot water production
- Installation of shading equipment

Thirasia

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1. Environmental protection – Sustainable transports – Climate change protection – Renewable energy sources

1.2. Transports

Introduction of the use of bicycle and electrical public transportation

- Pilot bike sharing system with 10+10 bicycles
- Bicycle lanes
- Management and conservation of traditional paths
- Replacement of public fleet with electrical vehicles (minibus, waste collectors)
- Optimization of public fleet routes
- Installation of charging station supplied by PV panels



Thirasia

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1. Environmental protection – Sustainable transports – Climate change protection – Renewable energy sources

1.3. Renewable Energy Sources

Installation of a 1,6 MW Wind Park in cooperation with Private Investors

Thirasia

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2. Protection and management of water resources

- New water distribution network
- Installation of Monitoring System
- Waste Water Treatment Plant
- Small Unit that produces drinkable Water for the citizens (cost 0,5 euro per 12 liters)



Thirasia

“Green” Island Community project

3. Protection of land systems and management of solid waste

- Separation of generated Waste at its Source
- Composting of the Biodegradables
- Electric Collection Vehicles
- Specific Actions for all kind of Waste (Batteries, El. Equipment, Tires, Building Materials, Medicine etc)

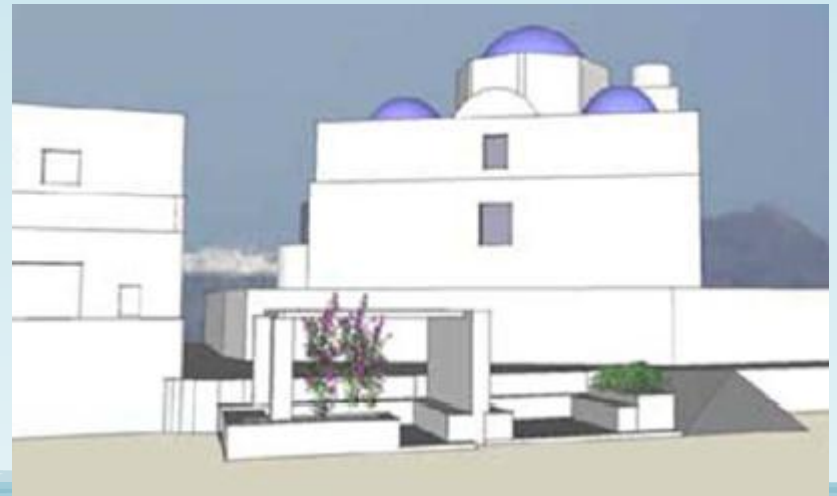


Thirasia

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4. Additional Tasks

- Open Space Bioclimatic Design
- Environmental Education of the Inhabitants



Thirasia “Green” Island Community project

Emission Reduction

Current Emissions CO2 eq: 1.628,52 tones per year

Future Emissions CO2 eq : -4.779,78 tones per year

Thirasia

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Results / Benefits of the Island

- Improvement of Quality of Life**
- Upgrade of the Touristic Product**
- Protection of the Environment**
- Stimulation of local economy**
- International Example for Regional Development**

Thirasia
“Green” Island Community project

Thank you for your attention!!

