

# OxiGEN

Next generation SOFC solutions



**NEXT-GENERATION  
SOLID OXIDE FUEL CELL STACK  
AND HOT BOX SOLUTION  
FOR SMALL STATIONARY  
APPLICATIONS**



The OxiGEN project aims to further the development of an innovative SOFC platform with an all ceramic stack integrated into a modular hotbox, for small stationary applications. Thanks to its higher durability and simpler design, this novel stack can fulfil the customers' needs for long lifetime, high efficiency and low cost, in micro-CHP and other segments.

### THE PROJECT OBJECTIVES ARE:

- Define, with input from the Advisory Panel, the most suitable hotbox functional specifications for residential and commercial segments.
- Develop a higher power stack to reach the following targets
  - DC efficiency of at least 55%
  - Lifetime > 90 000 hours
  - Stack Cost: below 1000 €/kW<sub>el</sub>
- Develop a modular hot box concept and build a 1kW<sub>el</sub> prototype.
- Assess the performance of the prototype in system-like conditions.
- Study the cost-of-ownership of the solution.
- Propose material-based solutions for future long-term improvements.
- Ensure the manufacturability and compatibility of the new hotbox with the EU supply chain.



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