



• Vol.31

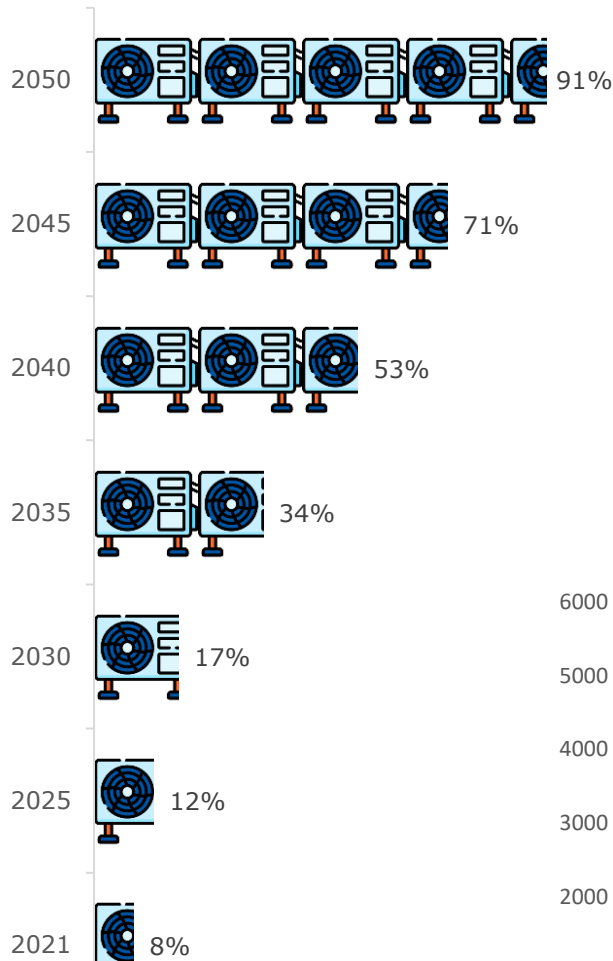
# Building the Future: The Residential Sector in Greece



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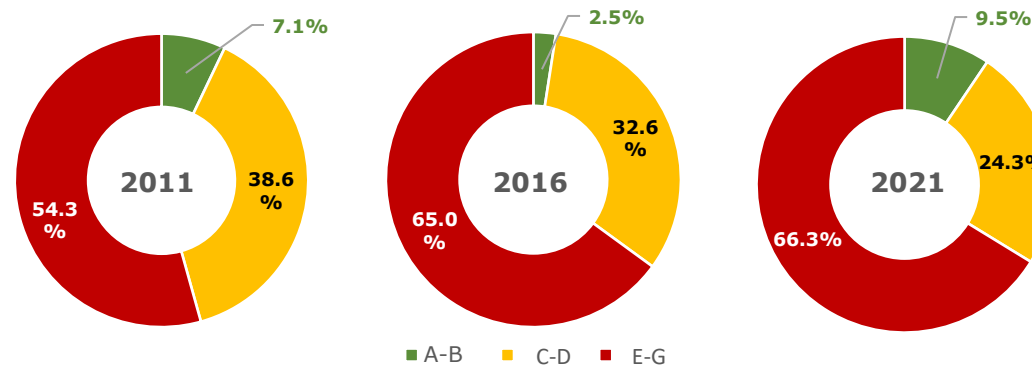
### NECP Targets for Heat Pump Penetration [2021 - 2050]

Households

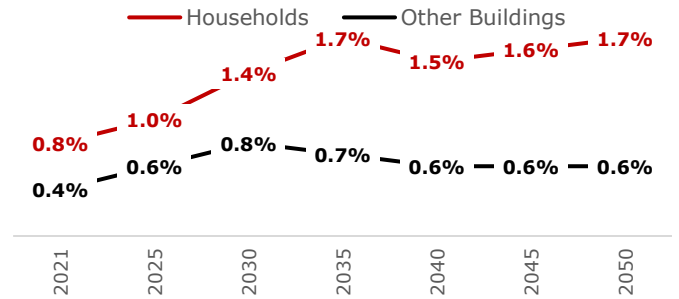


**The residential sector in Greece is aged and energy inefficient. There is a dire need for renovations and energy upgrade in order to achieve NECP's targets.**

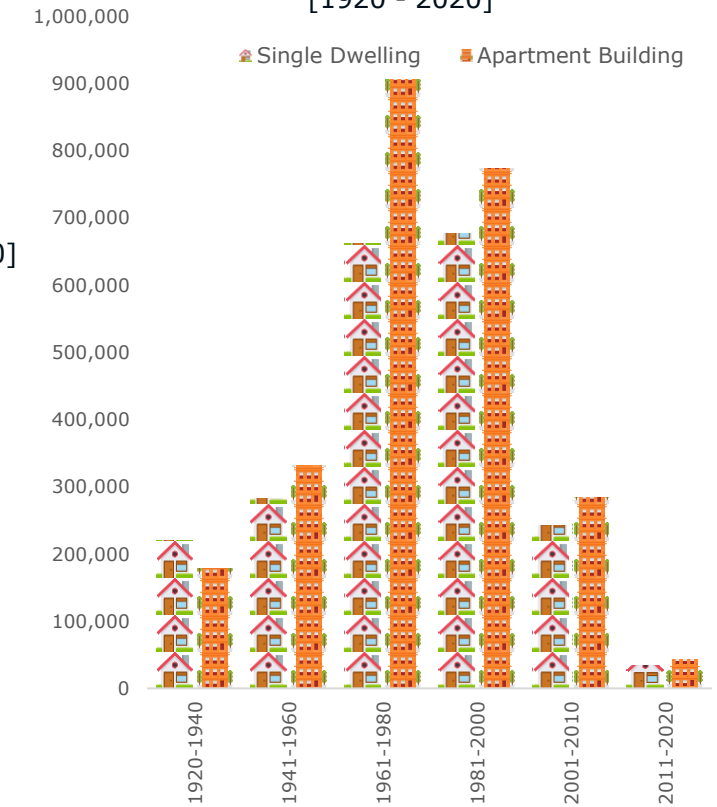
### Distribution of Energy Classes of buildings in Greece, [2011-2021]



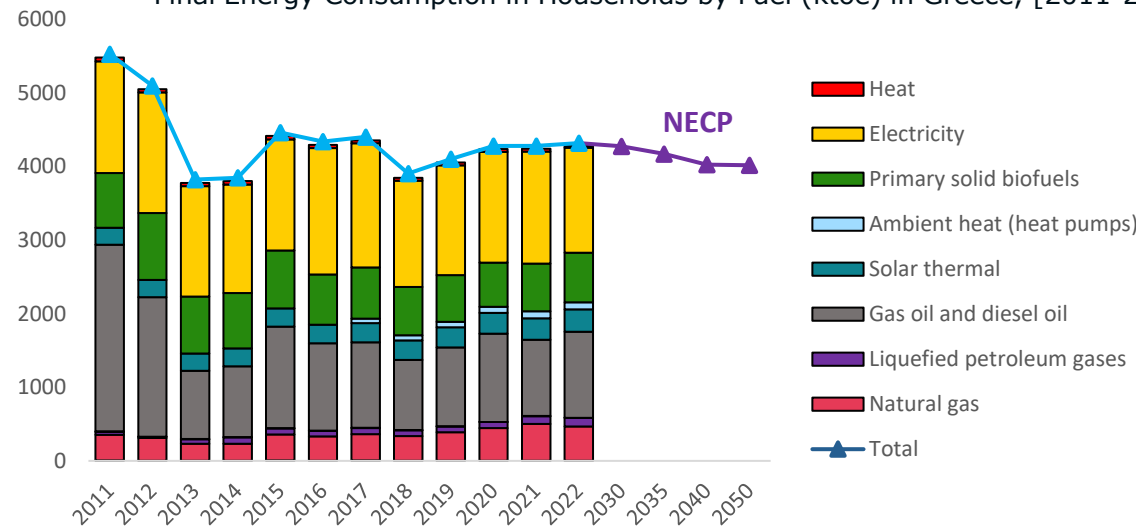
### NECP Targets for the Renovation Rate, [2021 - 2050]



### Age of Building Stock (Number of Buildings), [1920 - 2020]



### Final Energy Consumption in Households by Fuel (ktoe) in Greece, [2011-2050]



Greece's NECP sets an ambitious goal to renovate 15% of its residential building stock by 2030, focusing on energy efficiency upgrades and renewable integration. The plan also envisions a 35% reduction in energy usage in buildings by 2050, alongside with the transition to a 50% of renewable energy sources utilization for heating and cooling. It is estimated that those targets will require annual investments of approximately €1.5 billion.

## NECP Targets - Ambition

Digital technologies are set to revolutionize Greece's building sector. With over 70% of the building stock constructed before 1980, they tend to lack in modern energy efficiency standards. Implementing solutions like AI, IoT, and data analytics can lead to energy savings of up to 30% by optimizing building operations, enabling real-time monitoring, and predictive maintenance.

## Digital Transformation in Buildings



## Heat Pumps

## Recast EPBD

Heat pumps are designed to be the cornerstone technology for decarbonizing Greece's residential sector and reducing the dependence on fossil fuels. The National Energy and Climate Plan (NECP) outlines a target of 25% penetration of heat pumps by 2030, with a goal to exceed 40% by 2050. Replacing traditional heating systems with heat pumps can potentially reduce household energy costs by up to a 50%, leveraging renewable sources for heating and cooling.

The recast Energy Performance of Buildings Directive (EPBD) sets the path for Greece to align with EU climate goals by targeting the renovation of 3% of public and private buildings annually by 2030. Given that residential buildings account for c.30% of total energy consumption in Greece, implementing greener technologies to the residential sector could cut energy demand by up to 40%.

# HAEE

HELLENIC ASSOCIATION  
for ENERGY ECONOMICS

## Meet the Team

### HAEE Research Team

Prof. Dr. Kostas Andriosopoulos  
*Editor-in-chief*  
*Alba Graduate Business School;*  
*BoD Member, HAEE*

Konstantinos Sfetsioris  
*Senior Project Manager, HAEE*

Ilias Tsopelas  
*Energy Analyst, HAEE*

### Deloitte Team

Konstantinos Eleftheriadis,  
*Partner | Strategy, Risk & Transactions, Energy,*  
*Resources and Industrials Leader, Deloitte Greece*

Dr. Konstantinos Bergeles,  
*Principal | Strategy, Risk & Transactions,*  
*Energy, Resources and Industrials, Deloitte Greece*

Ioannis Kouloumpis,  
*Assistant Manager | Strategy, Risk &*  
*Transactions,*  
*Energy, Resources and Industrials, Deloitte Greece*

[Energy, Resources & Industrials | Deloitte](#)



[info@haee.gr](mailto:info@haee.gr)  
[www.haee.gr](http://www.haee.gr)



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