

Event:

Energy in Buildings Athens Conference 2026

Date:

Saturday October 24, 2026

Place:

Divani Caravel Hotel Athens, Greece



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Presentation title:	Scaling Up Heat Pumps in Greece: Policy Instruments, Gaps and Recommendations	
Heating and cooling account for 71% of residential final energy consumption in Greece and 1.69 million households heat with oil and 0.71 million with natural gas¹. Heat pumps are central to building decarbonisation, yet the installed stock (362,000 units)² is dominated by air-to-air systems and sales data for central hydronic units are scarce. This paper reviews the policy framework governing heat pump deployment in Greece and its adequacy for the national targets. The analysis covers the recast EU directives (EPBD 2024/1275, EED 2023/1791, RED III 2023/2413), the National Climate Law 4936/2022, the updated National Energy and Climate Plan (NECP, 2024) and its assessment by the European Commission (2025). The NECP sets a 52.6% renewable share in heating and cooling for 2030 (39.8% in 2025) and projects ambient heat use in households to rise from 96 to 347 ktoe in 2022-2030 (+260%), while residential oil use falls from 1,285 to 289 ktoe³. Heating-oil burner sales and installation have been banned since 1 January 2025⁴. Greece has taken important steps, including the National Climate Law, the updated NECP and the ban on heating-oil burners. However, further action is needed to meet its national and EU commitments. A quantified heat pump deployment target and a monitoring system are still lacking. Transposition of the EED is not yet complete and the Commission issued a reasoned opinion in October 2026⁵, while infringement procedures on RED III and the EPBD remain open⁶. A National Energy Efficiency Fund has yet to be established and renovation milestones for non-residential buildings are still to be set⁷. In addition, the impacts of ETS² (start postponed to 2028)⁸ on vulnerable households have not yet been analysed, although 18.7% cannot keep their home adequately warm⁹. The paper therefore recommends a quantified national heat pump roadmap and a clear fossil boiler phase-out plan, as the EPBD foresees by 2040¹⁰. Subsidy programmes should be redesigned to serve the NECP targets, favouring energy efficiency and efficient central heating and cooling systems rather than split units alone and electricity and gas taxes and levies should be rebalanced¹¹. Vulnerable households should receive income-tiered support through the Social Climate Fund and local heating and cooling plans should be launched.		

¹ JRC, Greece: Status of the Heat Pump Market, Country fiche 2024, JRC 137131.

² JRC, Greece: Status of the Heat Pump Market, Country fiche 2024, JRC 137131.

³ Updated National Energy and Climate Plan of Greece, Government Gazette B' 6983/19.12.2024.

⁴ Law 4936/2022 (National Climate Law), Government Gazette A' 105/27.05.2022, Article 17.

⁵ European Commission, October infringements package: key decisions on energy, 1 October 2026, INFR(2025)0315.

⁶ European Commission, Key decisions on energy, 24 July 2025 (RED III, letters of formal notice to 26 Member States); EUBAC, EPBD transposition: infringement procedures against the 27 Member States, July 2026.

⁷ European Commission, Assessment of the final updated NECP of Greece, SWD(2025) 140.

⁸ ICAP, EU officially adopts the 2040 climate target, postpones ETS 2 by one year, March 2026; SWD(2025) 140, section 2.8.

⁹ JRC, Greece: Status of the Heat Pump Market, Country fiche 2024, JRC 137131.

¹⁰ Directive (EU) 2024/1275 (EPBD recast), Article 13(7), Annex II and recital 14 (no financial incentives for stand-alone fossil fuel boilers from 2025).

¹¹ IEA, Heat Pump Monitor 2026: Trends and market opportunities.

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Critically, installer certification and training programmes are needed, focused on the safe handling of new low-GWP and natural refrigerants and building on the training programmes for refrigeration technicians already delivered at NTUA.

Short CV (EN)

Dr Rosa Christodoulaki is Laboratory and Research Personnel at the National Technical University of Athens. She holds a BSc in Physics (University of Athens), an MSc in Environmental Design and Engineering (University College London) and a Post-PhD and PhD in Mechanical Engineering (National Technical University of Athens). Her work focuses on renewable heating and cooling, energy efficiency in buildings and industry and energy and climate policy. She has participated in over 25 EU-funded projects and has authored more than 30 publications in scientific journals and international conferences.

Short CV (GR)

(If Greek)

Η Δρ Ρόζα Χριστοδουλάκη είναι μέλος του Εργαστηριακού και Ερευνητικού Προσωπικού του Εθνικού Μετσόβιου Πολυτεχνείου (ΕΜΠ). Είναι πτυχιούχος Φυσικής του Πανεπιστημίου Αθηνών, κάτοχος MSc Environmental Design and Engineering (UCL) και διδάκτωρ της Σχολής Μηχανολόγων Μηχανικών του ΕΜΠ, όπου ολοκλήρωσε και την μεταδιδακτορική της έρευνα. Το έργο της επικεντρώνεται στη θέρμανση και ψύξη από ανανεώσιμες πηγές ενέργειας, στην ενεργειακή απόδοση σε κτίρια και βιομηχανία και στην ενεργειακή και κλιματική πολιτική. Έχει συμμετάσχει σε περισσότερα από 25 ευρωπαϊκά ερευνητικά έργα και έχει δημοσιεύσει περισσότερες από 30 εργασίες σε επιστημονικά περιοδικά και διεθνή συνέδρια.

CV

Dr Rosa Christodoulaki is Laboratory and Research Personnel at the National Technical University of Athens (NTUA). Her work focuses on renewable heating and cooling, energy efficiency in buildings and industry and energy and climate policy.

She holds a BSc in Physics from the National and Kapodistrian University of Athens, an MSc with Distinction in Environmental Design and Engineering from University College London (Bartlett) and a PhD from the School of Mechanical Engineering of NTUA on the thermodynamic analysis of open-cycle evaporative cooling systems with liquid desiccants (2015). She completed post-doctoral research at NTUA on an innovative concentrating solar collector for industrial applications (2016-2017).

From 2017 she worked as Renewable Energy and Energy Efficiency Specialist at the Centre for Renewable Energy Sources and Saving (CRES), where she had also been a researcher in 2008-2010. Between 2008 and 2015 she was Energy Efficiency Specialist at the NTUA Laboratory of Applied Thermodynamics. She has participated in more than 25 EU-funded projects under the LIFE, FP7 and Horizon 2020 programmes, as well as in International Energy Agency (IEA) research tasks. She has served as a technical expert and proposal evaluator for the European Commission under FP7, Horizon 2020 and the Innovation Fund.

Her teaching experience includes Adjunct Assistant Professor at ASPETE and the modules Refrigeration II and Software for Thermodynamic Analysis at NTUA.

She has authored more than 30 publications in scientific journals and international conferences, among them Energies, Applied Thermal Engineering, Energy and Energy Conversion and Management. Recent work addresses the decarbonisation of heating and cooling under the EU directives and a PESTEL analysis of the Hellenic heating and cooling sector.