

Housing Production and Energy Use in Greece Insights from History and New Social Challenges

Bytová výstavba a spotreba energií Náhľady z histórie a nové sociálne výzvy

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Prepuknutie gréckej dlhovej krízy v roku 2010 otvára v Grécku diskusiu o domácej spotrebe energie. Ekonomická recesia v kombinácii s úspornými opatreniami vedie k zvyšovaniu nezamestnanosti, znižovaniu príjmov, ústupu sociálneho štátu a k väčšiemu zdaňovaniu, najmä súkromného majetku. Finančné obmedzenia spojené s rastúcimi cenami pohonných hmôt, ktoré sú výsledkom zmien na globálnom trhu s energiami, a špecifických štátnych politík robia energiu nedostupnou pre významnú časť populácie. Za týchto okolností sa už prístup k energiám nepovažuje za samozrejmosť a obavy s tým spojené sa stávajú súčasťou širšieho diskurzu o bytovej kríze. Problémy a výzvy týkajúce sa domácej spotreby energie sú významnými aspektmi zhoršovania životných podmienok domácností. Sú tiež úzko spojené so zhoršovaním fyzického stavu budov v dôsledku vysokých nákladov na prevádzku a údržbu, ako aj tlaku vyvíjaného na dlžníkov nesplácajúcich hypotekárne úvery.

Grécka dlhová kríza koluduje s významnými globálnymi transformáciami v energetickom sektore, ktoré okrem iného ovplyvňujú aj bývanie. Prechod na nový energetický model, ktorý podporuje nezávislosť od fosílnych palív, rozvoj obnoviteľných zdrojov energie, liberalizáciu trhu s energiami a zmierňovanie zmeny klímy, pripravuje pôdu pre rozsiahlejšiu reštrukturalizáciu a intervencie, ktoré podporujú vylepšenie energetického vybavenia existujúceho bytového fondu, ako aj model nízkoenergetických budov pre nové stavby. V tejto súvislosti sa prijímajú nové politiky a na gréckom trhu s energiou sa objavujú noví hráči. V niektorých prípadoch tieto nové trendy súvisia s úsilím domácností pokryť svoje základné energetické potreby a znížiť podstatné náklady.

Sociálnym aspektom vzťahu medzi bytovou výstavbou a využívaním energií v gréckych mestách z dlhodobého hľadiska, ako aj vplyvu gréckej dlhovej krízy z roku 2010 na bývanie, bola doteraz venovaná len malá pozornosť a stále zostávajú nedostatočne preskúmané. Doterajšie štúdie o využívaní energií kladú dôraz na technické a finančné faktory, ako sú ceny pohonných hmôt, príjem domácností a energetická efektívnosť budov, alebo sa zameriavajú na problémy a prax zraniteľných domácností. Teoretická a empirická analýza tak nezahŕňa sociálno-priestorové aspekty trendov, politík a praxe súvisiace s využívaním energie v domácnostiach gréckych miest.

Zámerom tohto článku je preskúmať sociálne výzvy týkajúce sa prístupu domácností k energiám, ktoré sa objavili

v súvislosti s krízou. Prostredníctvom skúmania bytovej výstavby a využívania energií v gréckych mestách z historickej perspektívy má článok za cieľ poukázať na prekážky i možnosti, pred ktoré sú domácnosti postavené v rámci riešenia svojich energetických potrieb. Zároveň je jeho cieľom vyhodnotiť rôzne politiky presadzované vládou, programy mimovládnych organizácií, ako aj iniciatívy miestnych obyvateľov týkajúce sa spotreby energií v domácnosti.

Príspevok využíva metodológiu umožňujúcu zachytiť osobitosti sektora bývania v gréckych mestách, ako aj fluidný stav problémov, postupov a dynamiky využívania energií. Pracovali sme preto prístupom viacerých metód, kombinujúc prehľad literatúry a analýzu dát. Menovite sme analyzovali články, prieskumy, politické analýzy a právne predpisy zameriavajúce sa na to, ako sa v Grécku v dekádoch po druhej svetovej vojne vyvíjal (či nevyvíjal) záujem o problematiku bytovej výstavby a využívania energií, s dôrazom na dopady nedávnej hospodárskej krízy. Podobne, pre získanie prehľadu o trendoch a problémoch týkajúcich sa spotreby energie v domácnostiach sme sústredili a analyzovali dostupné kvantitatívne dáta.

Úvod príspevku je venovaný historickému prehľadu spotreby energií v sektore bývania v Grécku po druhej svetovej vojne. Následne sa zameriava na jednej strane na dopady finančnej krízy na domácu spotrebu energií, predovšetkým na nárast energetickej chudoby, a na druhej strane sa zaoberá prechodom na prístupy k úsporám energie. Článok sa ďalej podrobnejšie venuje ako politikám, tak aj reakciám občianskej spoločnosti na aktuálne výzvy týkajúce sa spotreby energií v domácnostiach. Napokon, záverečná časť článku poukazuje na novú situáciu domácej spotreby energie, ktorá vznikla v posledných rokoch a prezentuje závery týkajúce sa možnej sociálnej exklúzie a bytovej segregácie, ktoré by v budúcnosti mohli vzniknúť na základe prístupu k energiám.

V skratke, naším hlavným argumentom je, že dlhová kríza sa stala zlomovým bodom pre domáce využívanie energií. Práve počas krízy nastala v Grécku veľká zmena v spotrebe energií v domácnostiach. Vzťah medzi bývaním a energiou, ako sa formoval v povojnovom období, sa destabilizoval. Táto destabilizácia predstavuje nové výzvy pre architektov, tvorcov politík a občiansku spoločnosť, ako aj pre samotné domácnosti. V niektorých prípadoch sa agenda týkajúca sa spotreby energií v domácnostiach, stanovenej štátom, mimovládnyimi organizáciami

a sociálnymi hnutiami, stretáva, pretína alebo vyvíja v súlade s prioritami a postupmi domácností. No podľa našich zistení vo väčšine prípadov domácnosti vyvíjajú vlastné stratégie na riešenie svojich energetických potrieb, a to jednak z dôvodu neznalosti nástrojov poskytovaných zainteresovanými stranami, jednak preto, že tieto nástroje nezodpovedajú ich problémom a potrebám. Inými slovami, kríza sa stala zlomom ako pre dominantný diskurz, tak aj pre sociálnu dynamiku v problematike energií, aj keď rôznymi spôsobmi a smermi.

Vznik energetickej chudoby ako vážneho spoločenského fenoménu súčasne s podporou „energetického prechodu“, vytvára novú situáciu spotreby energií v domácnostiach, a ovplyvňuje životné podmienky veľkej časti obyvateľstva. V tejto súvislosti vyvstáva otázka, či nové podmienky vo výrobe a spotrebe energií nevytvárajú podmienky pre vylúčenie z bývania a nové nerovnosti v mestskom priestore.

Pokiaľ ide o politiky v oblasti domácej spotreby energie, tie majú buď formu energetických výhod, ktoré pomáhajú domácnostiam uspokojovať ich energetické potreby, alebo ide o politiky úspor energií, ktoré sa dovedna vyznačujú rozdrobenosťou a nejednoznačnosťou. V tejto chvíli je v hre otázka, ako efektívne integrovať domácu energetickú politiku do komplexnej stratégie bývania. To, čo je v tomto smere zásadné, je prijať také opatrenia, ktoré zabránia takzvanej zelenej gentrifikácii a zaručia dôležitú úlohu malým hráčom na trhu (ako sú architekti, inžinieri, konštruktéri, maloobchodníci a podobne). Tým sa zabezpečí šírenie vytvorených benefitov pre spoločnosť. Napokon, v kontexte rastúceho znepokojenia ohľadne energií v posledných rokoch musíme brať do úvahy sociálne hnutia a ich úlohu pri upriamovaní pozornosti na energetické otázky a v boji za právo na primerané bývanie prostredníctvom kolektívnej akcie.

Introduction

The outbreak of the Greek debt crisis in 2010 sparked considerable discussion on domestic energy consumption in Greece. In combination with austerity measures, the economic recession has led to rising unemployment, falling incomes, the rollback of the welfare state and increased taxation burdens, especially on private property.² Financial constraints, coupled with rising fuel prices as the result of changes in the global energy market and specific national policies, are making energy unaffordable for a significant part of the population.³ Under these circumstances, access to energy is no longer taken for granted and the concern has become part of a wider discourse about the housing crisis.⁴ The problems and the challenges regarding domestic energy consumption are significant aspects of the deteriorating living conditions of Greek households, while also intertwined with the physical deterioration of buildings due to high operating and maintenance costs and pressure on borrowers who have non-performing mortgage loans.⁵

The Greek debt crisis coincides with significant global transformations in the energy sector, which, among other things, affect housing. The transition to a new energy model seeking independence from fossil fuels, development of renewable energy resources, liberalization of the energy market and mitigation of climate change paves the way for broader restructurings and interventions favouring energy retrofitting of the existing housing stock, as well as implementation of a low-energy building model for new buildings.⁶ In this regard, new policies are adopted, and new players are emerging in the Greek energy market. In some cases, these new trends are related with households' efforts to cover their basic energy needs and to reduce relevant costs.

The aim of this article is to investigate the social challenges that emerged in the context of the crisis concerning household energy access. Through studying housing production and energy use in Greek cities from a historical perspective, we intend to highlight the obstacles and the opportunities households face with regards to meeting their energy needs, as well as assessing policies promoted by the central government, non-governmental organizations' (NGOs') actions and initiatives undertaken by grassroots concerning domestic energy consumption. Overall, our main argument is that the debt crisis became a turning point for domestic energy use, putting into question policy-making, market dynamics and social practices and posing new social challenges regarding housing.

The article builds on a methodology capable of capturing the particularities of the housing sector in Greek cities, as well as reflecting the fluid state of the problems, practices and dynamics of energy use. Therefore, we employed a mixed-method approach that combines literature review and data analysis. In particular, we analyzed articles, surveys, policy reports and legislation in order to trace how the concern about housing production and energy use developed (or failed to develop) during the post-World War II decades in Greece, with an emphasis on the impacts of the recent economic crisis. Moreover, we compiled and analyzed available quantitative data for an overview of trends and problems regarding energy use in the domestic sphere.



**PROMOTION OF THE PUBLIC
POWER CORPORATION**

PROPAGÁCIA VEREJNÉHO
ELEKTRÁRENSKÉHO PODNIKU

Source Zdroj: Historical Archive Public
Power Corporation, 1960

**PRESENTATION OF THE USE
OF AN ELECTRIC OVEN**

PREZENTÁCIA POUŽITIA
ELEKTRICKEJ RÚRY

Source Zdroj: Historical Archive Public
Power Corporation, 1958



The article begins with a historical review of energy use in the housing sector in Greece during the post-World War II decades. Then it unpacks, on the one hand, the impacts of the financial crisis on domestic energy consumption and particularly the rise of energy poverty, and, on the other hand, the shift towards energy-saving approaches. Subsequently, the article discusses the responses of both public policy and civil society to the recent challenges regarding domestic energy use. In turn, the final part of the article highlights the new conditions for domestic energy consumption that have emerged in the past few years and draws some concluding points about potential social exclusion and residential segregation that might arise in the future based on access to energy.

Until now, the social aspects of the relation between housing production and energy use in Greek cities, as well as the impact of the Greek debt crisis of 2010 on housing and habitation, have attracted little public and political attention and remain under-researched.⁷ Existing studies on domestic energy use emphasize technical and financial factors, such as fuel prices, household income, and energy efficiency of buildings, or focus on the problems and practices of individual households.⁸ Thus, the greater part of theoretical and empirical analysis excludes the socio-spatial dimensions of the trends, policies and practices regarding energy use in the domestic realm in Greek cities.

Housing Production and Energy in Greece Until the Recent Crisis

During the post-World War II decades, cities in Greece, as in the rest of the European countries, developed on the assumption that energy consumption could and should be constantly expanding.⁹ The post-war development model, focused on the rationalization of production, electrification, large-scale projects, mass consumption and mobility, changed the features of the buildings, which from this point were connected to utility networks and fully equipped with modern electric devices.¹⁰ The dominance of technologies that depend on energy consumption contributed to the transformation of everyday practices and revealed the stabilization of an entire socio-economic paradigm.¹¹ Gradually, new technologies expanded and became part of everyday life, yet nevertheless energy consumption did not attract much of the attention of policy makers, engineers, designers or researchers, who focused on improving the technological systems that produced energy at the national and European levels.¹²

In this context, the issue of domestic energy consumption and energy saving remained marginal in the processes of housing production. To be exact, at that time, the main political agendas in Greece were to provide shelter and improve the living conditions of the massively rising urban population, as well as to give a boost to the economy and create jobs by stimulating the



ELECTRIFICATION OF A RURAL SETTLEMENT IN THE PREFECTURE OF ETOLOAKARNANIA

ELEKTRIFIKÁCIA RURÁLNYCH SÍDEL V PREFEKTÚRE ETOLOAKARNANIA

Source Zdroj: Historical Archive Public Power Corporation, 1969



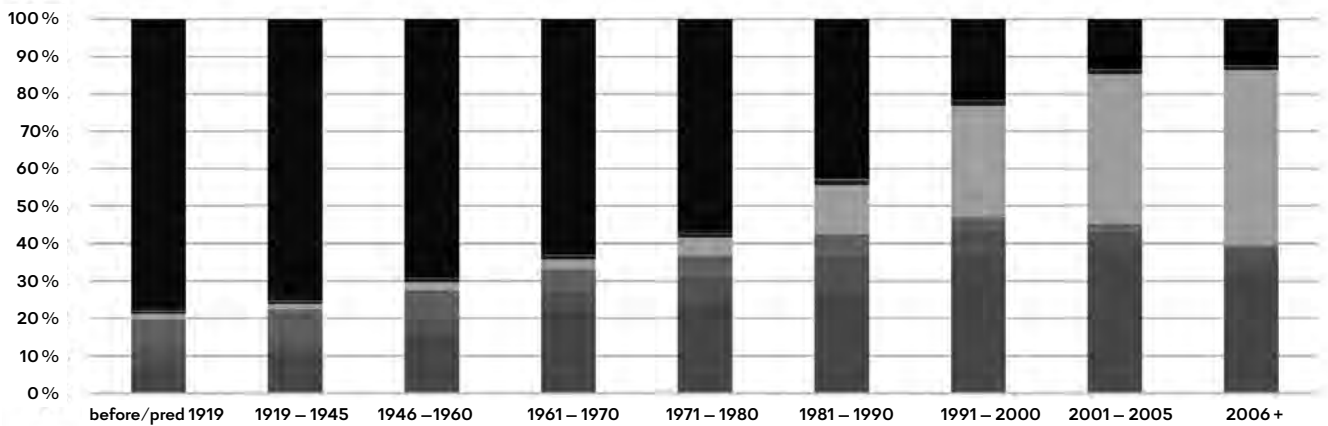
EQUIPMENT OF THE NATURAL GAS SYSTEM IN A NEWLY BUILT RESIDENTIAL BUILDING

ROZVODY ZEMNÉHO PLYNU V NOVOSTAVBE BYTOVÉHO DOMU

Photo Foto: Chatzikonstantinou Evangelia, Vatavali Fereniki, 2020

construction sector.¹³ The rise of a middle class and its contribution to the dominant model of housing production and consumption since the 1960s were combined with access to modern energy services and the affordability of domestic technologies based on electricity and oil.¹⁴ The modern house was equipped with electrical devices (such as electric water heater, refrigerator, oven, washing machine etc.), radiators connected with oil-burning furnaces and elevators in the blocks of flats. The energy-dependant modernization of dwellings significantly improved the living conditions of the population.¹⁵ Gradually, starting in the 1970s, access to electricity expanded to most households, especially in the cities, while the cost of infrastructure and energy soon became affordable for the vast majority of households.¹⁶

This model of post-war urban development, based on the development of the real-estate and construction sectors, was expected to grow eternally. In this direction, legislation was a key factor.¹⁷ The successive building regulations posed the terms for the characteristics of the buildings and ignored local techniques and architecture immediately responding to climate conditions and based



- No insulation**
Bez zateplenia
- Double-glazed windows, external walls insulation and other type of insulation**
Dvojité zasklenie okien, vonkajšie zateplenie múrov a iný typ izolácie
- External wall insulation and other type of insulation**
Vonkajšie zateplenie múrov a iný typ izolácie
- Double-glazed windows and other type of insulation**
Dvojité zasklenie okien a iný typ izolácie
- Double-glazed windows and external walls insulation**
Dvojité zasklenie okien a vonkajšie zateplenie múrov
- Other**
Iné

PERCENTAGE DISTRIBUTION OF TYPES OF INSULATION OF CONVENTIONAL DWELLINGS

PERCENTUÁLNE ROZDELENIE TYPOV IZOLÁCIE NA BEŽNOM BÝVANÍ

Source Zdroj: ELSTAT, 2011. Population and Housing Census 2011. Athens: Hellenic Statistical Authority

on the rational and sustainable use of resources. In addition, the lack of technical standards led to the construction of buildings with poor energy efficiency. And even when, for example, insulation of new buildings became obligatory,¹⁸ inadequate control mechanisms and land speculation prevented the improvement of the energy efficiency of buildings. Thus, although basic needs were covered and a social consensus around housing production was created, the characteristics of the built space made it evident that serious economic, social and environmental problems would arise in the future. During that period, only a minority of architects, scholars and policy-makers drew attention to the limits of the dominant urban development model and the scarcity of energy resources.¹⁹

A new generation of buildings appeared in the 1990s and the 2000s, in combination with the construction boom fostered mainly by cheap housing loans and the rise of new lifestyles.²⁰ Although the main mechanisms and the main actors of housing production were the same as in the past, new building materials, technologies and construction practices were adopted (insulation, double glazing, thermally resistant windows, boilers, autonomous heating systems, natural gas technologies, high performance burners etc.). In general, despite the differences among buildings, this shift led to the construction of buildings of high energy efficiency.²¹ However, it did not respond to any specific demand or to a new approach to energy issues, but instead was the outcome of a change in technologies and user lifestyles. In this regard, the infrastructure's and equipment's costs were incorporated into the price of the house.²²

It is not irrelevant that the energy efficiency of the buildings and the energy practices never became a topic of interest for policymakers, scholars, engineers, architects and urban planners. Although the academic discourse of that time stressed important environmental issues of the urban space,²³ with a special concern addressed to green spaces,²⁴ the improvement of urban micro-climates,²⁵ sustainable mobility,²⁶ as well as bioclimatic building design,²⁷ it did not attempt any deep analysis of the relations among the technical, social and environmental dimensions of domestic energy consumption. Similarly, the environmental movements' claims focused mainly on the struggle against large-scale infrastructure projects and the reclaiming of public space and did not broach the subject of the energy and its importance for environmental sustainability and the quality of life.²⁸

The Impact of the Crisis on Domestic Energy Consumption

The issues of domestic energy consumption were brought into the spotlight only after the outbreak of the Greek debt crisis, due to the difficulty or inability of numerous households to cover their basic energy needs. *Energy poverty* emerged as a new phenomenon in Greek society;²⁹ a phenomenon that cannot be easily measured and accessed. Moreover, these problems can be discerned all over Europe, and, apart from local and regional particularities, have a significant connection to policies that promote clean energy models.³⁰ In Greece, one of the biggest problems for a large part of the population is heating. As the cost of energy compared to incomes is high, a lot of people lack adequate heating during winter,³¹ buildings are severely damaged by damp and mould, and households



**A POST-WAR APARTMENT
BUILDING IN THE CITY OF ATHENS**

BYTOVÝ DOM Z POVOJNOVÉHO
OBDOBIA V CENTRE ATÉN

Photo Foto: Mpampis Louizidis, Katerina
Glinou, 2012

seek cheaper alternatives, albeit often unsuccessfully. Apart from heating, problems of accessing energy extend to all fields of the domestic sphere and everyday life. Unpaid electricity bills are another big problem and in certain cases energy companies disconnect households' electricity supply due to arrears.

Household energy problems have specific effects in apartment buildings, where material characteristics, tenancy status, legal arrangements and the mixture of different social groups prevent the adaptation to the new conditions.³² The fact that most apartment buildings, especially the older ones, have central heating systems and shared facilities such as elevators, lighting and intercoms, means that all residents have to contribute to the maintenance and heating costs. However, the simultaneous presence of owners and tenants, with different and changing means and priorities in the current crisis, causes conflicts. As a result, in most apartment buildings, the central heating system is out of operation and in some extreme cases, apartment buildings become disconnected from the electricity network.³³ In this context, the possibilities and constraints that stem from the decision-making processes concerning the maintenance of the building and the common life of its inhabitants acquire a new significance. Likewise, energy problems in apartment buildings reveal the limits of a building typology that became the key symbol of modernization for Greek society during the post-war period. Also, for the very first time, we can speak of a collapse of the social consent that developed around the post-war urban development system and particularly the typology of the urban apartment building.³⁴

In this regard, practices connected with domestic energy use change. Energy consumption has substantially decreased, as many people quit all unnecessary activities and adopt a more efficient way of energy use, while others are forced into a state of deprivation. It is indicative that the total energy consumption, constantly increasing in the post-war decades, had a five-year period of

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Central heating Centrálne vykurovanie	68.2	66.9	65.9	64.4	55.7	38.1	35.4	39.7	41.5
Natural gas heating Vykurovanie zemným plynom	5.0	6.6	7.2	7.7	8.1	8.9	9.2	10.4	11.1
Diesel-fuel stove Pec na plynový olej	5.3	5.1	5.0	4.2	3.4	2.2	2.7	2.4	2.1
LPG stove Pec na propán-bután	0.6	0.8	1.4	1.5	2.0	2.3	2.2	1.4	1.2
Firewood stove Pec na drevo	6.1	5.9	5.4	6.7	7.9	11.6	11.1	9.9	7.8
Thermal accumulator Termálny akumulátor	2.8	2.7	2.6	2.3	1.7	1.9	2.2	1.9	1.9
Electric heater appliances (stove, fan heater, heater) Elektrické ohrievacie spotrebiče (sporák, ohrievajúci ventilátor, ohrievač)	4.4	4.7	4.7	4.4	6.9	11.5	13.5	14.3	13.3
Air-conditioner Klimatizácia	4.0	4.3	4.8	4.7	5.8	12.6	12.8	9.6	9.9
Other Iné	2.6	3.2	2.3	3.8	7.8	9.5	9.2	9.9	10.4
No heating Bez vykurovania	0.4	0.4	0.5	0.2	0.8	1.5	1.8	0.5	0.8

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS IN GREECE BY PRIMARY HEATING METHODS, 2008 – 2016

PERCENTUÁLNE ROZDELENIE GRÉCKYCH DOMÁCNOSTÍ PODĽA HLAVNÝCH SPÔSOBOV VYKUROVANIA, 2008 – 2016

Source Zdroj: ELSTAT 2018

significant reduction after 2009. Subsequently, it has been recovering but is far from reaching the pre-crisis levels.³⁵ Respectively, from 2008 to 2014, the heating oil consumption declined by 69 % and the use of central heating in apartment buildings by 46.7 %.³⁶ Apart from the reduction in energy consumption, a significant number of households decided to change their heating systems to cover their heating needs, reduce consumption and decrease the relevant costs, especially in apartment buildings where central heating was not in use. In addition, homeowners who can afford the associated costs follow the market trends and policy directions, turning toward energy retrofitting interventions in their property.

Policies and Initiatives for the Access and Consumption of Energy at Home

The recognition of the problems connected with household access to energy has led, in Greece as well, to the adoption of a series of state policies and emergency measures after 2010.³⁷ Among others, they include heating oil subsidies, social tariffs for domestic electricity consumers, electricity reconnections, free access to electricity for extremely poor households, favourable arrangements for debts and arrears to electricity suppliers, and discounts to electricity consumers that pay on time. More recent measures include coverage of the debts of poor households to electricity suppliers and measures for tackling illegal electricity connections. However, access to state benefits is connected mainly with social and income criteria, while the energy specifications of the buildings and the difficulties of households to achieve thermal comfort conditions in their residence are not taken into consideration. In this respect, these policies and measures constitute a form of income support and not a sustainable response to the problems of households experiencing energy deprivation because their house is poorly insulated and their appliances are old and inefficient.

Apart from the emergency measures for access to energy, since the beginning of the crisis a range of policies and programs for improving the energy efficiency of the housing stock have been developed, in accordance with European Union policies toward the mitigation of climate change and the reduction of greenhouse gas emissions.³⁸ Initially, and before the crisis was fully perceived, a complex set of arrangements was created for the construction of low energy consumption



PROMOTIONAL MATERIAL FOR THE ENERGY EFFICIENCY PROGRAM "SAVING AT HOME"

PROPAGAČNÝ MATERIÁL PROGRAMU ENERGETICKEJ EFEKTÍVNOSTI „ÚSPORY V DOMÁCNOSTI“

Source Zdroj: Ministry of Environment, Energy and Climate Change, 2011

buildings (Regulation on the Energy Performance of Buildings, New Building Code etc.) which, in addition to their environmental goals, attempted to stimulate the real estate market and the construction sector. Nonetheless, even today the results of these policies and programs are not significant and in most cases are not channelled towards the households most in need.³⁹ Such is the case of the energy efficiency program “Saving at Home”, planned and implemented in successive phases by the central government. Even though this program has contributed significantly toward a change of attitude regarding the efficient use of energy in residences, its scale is particularly, if we consider the number of dwellings that have low-energy performance,⁴⁰ and usually leads to non-integrated energy interventions. A question that arises about energy retrofitting is related to the increase of housing prices and the impact on poor tenants who might be evicted from their homes and forced to live in buildings of lower quality or in areas on the periphery of the city, a process often termed “green gentrification”.⁴¹

In addition, a regulatory framework for energy service companies and energy communities has been established in Greece, in line with the developments in the European context.⁴² ‘Energy Service Companies’ undertake energy efficiency interventions in existing buildings by using the energy savings to pay back the capital invested in energy upgrades. On the other hand, ‘Energy Communities’ aim at involving citizens, local authorities and companies in energy projects that are designed to reduce energy consumption and produce clean energy on the local level. These new actors and processes respond to models and practices previously applied in other countries and bear no immediate relation to the local processes of housing production.

A measure positioned at the threshold between the social policies that aim to deal with people’s energy needs and the energy policies that focus on the retrofitting of buildings is the adoption of a legal framework that opens the way to the installation of autonomous heating systems in the individual flats of apartment buildings without receiving the permission of the tenants’ assembly, as was previously the case.⁴³ This measure was adopted in order to put an end to the ‘hostage’ of those tenants who do not have adequate heating in their homes – even when they can personally afford the cost – due to the inability of other tenants to pay their share for the total central heating costs. However, the energy efficiency of such interventions is questionable, since the problem is not addressed as a whole. The social impact of the measure is also controversial, as it creates new differentiations that could in the long term undermine the social and material viability of the apartment buildings.

Except for the central government’s policies, the discussion about energy at home is usually intertwined with the actions of NGOs. Besides local social and environmental issues, NGOs follow



THE COVER PAGE OF THE BIENNIAL JOURNAL "THE LIVING PLANET" OF WWF HELLAS

OBÁLKA ČASOPISU „ŽIVÁ PLANÉTA“ VYDÁVANÉHO ORGANIZÁCIU WWF GRÉCKO

Source Zdroj: WWF Hellas, 2013



PROMOTIONAL MATERIAL FOR THE SOLAR ENERGY PRODUCTION PROGRAM "SOLARIZE GREECE" OF NGO GREENPEACE, 2017

PROPAGAČNÝ MATERIÁL K PROGRAMU PRODUKČIE SOLÁRNEJ ENERGIE „PRESIEŤME GRÉCKO“ ORGANIZÁCIE GREENPEACE, 2017



"NO HOME WITHOUT ELECTRICITY", CAMPAIGN POSTER „ŽIADEN DOMOV BEZ ELEKTRINY“, PLAGÁT KU KAMPANI

Source Zdroj: 'I don't pay' movement, 2012

the discussion about energy in the European context and adjust their actions to the available funding. During the first years of the crisis, environmental NGOs focused on the then-marginal issue of energy poverty through awareness campaigns and relevant research projects, only later paying attention to the energy retrofitting of buildings, renewable energy production at a local level and formation of energy communities.⁴⁴ Similarly, consumer associations play an active role in issues related to energy use at home and provide legal support and technical advice to households that live without electricity or under the threat of disconnection.

On the other side, the actions of social movements concerned with household energy consumption are usually established ad-hoc, with a defensive character opposing austerity policies and cuts. The incorporation of property tax in the electricity bills from 2011 to 2013 and the resulting electric power disconnections due to debts was an important turning point that for the first time brought together and intertwined the energy and housing sectors. This measure led to passionate demonstrations, to bill-payment boycotts, legal actions, mobilizations of citizens to prevent disconnections and to the creation of informal technical groups that reconnected residences to the electricity network – in some cases with the support of the local authorities.⁴⁵ Actions like preventing disconnections from the electricity network and supporting informal reconnections have been promoted by local movements even after 2013, when the central government decided to remove the property tax from

electricity bills, since a significant number of households still could not afford the cost of energy and the debts to energy suppliers. However, the scale remained limited, hence gradually an individual approach to energy problems replaced the collective one developed during the first years of the crisis. It is noteworthy that the mobilizations against the privatization of a part of the infrastructure of the state-owned electricity provider and the local resistance actions against large-scale energy projects did not manage to bring up issues connected with the needs and the problems of residential consumers. As a conclusion, we could say that social mobilizations concerning domestic energy issues focus merely on people's rights to energy and on ensuring decent living conditions, without ever opening the discussion about issues like 'energy democracy' and 'just transition' in the Greek context or from claiming a model of alternative energy production and consumption that expands beyond middle class investors and manages to include vulnerable consumers.⁴⁶

Questions and Concerns

During the crisis, a major change has occurred concerning domestic energy consumption in Greece. The relation between housing and energy, as formed during the post-war period, has been destabilized. This destabilization creates new challenges for architects, policymakers and civil society, as well as for individual households. In some cases, the agenda regarding energy use at home set by the state, NGOs and social movements can combine, intersect, or evolve in line with household priorities and practices. However, according to our findings, in most cases households develop their own strategies in order to cope with their energy needs, either because they are unaware of the tools provided by stakeholders, or because these tools do not fit their problems and concerns. In other words, the crisis has become a turning-point both for the dominant discourse and social dynamics on energy issues, though in different ways and directions.

Specifically, the emergence of energy poverty as a serious social phenomenon, concurrently with the promotion of 'energy transition', forms a new condition for the consumption of energy at home and affects the living conditions of large parts of the population. In this context, the question arising is whether the new landscape in energy production and consumption creates conditions of exclusion from housing and new inequalities in the urban space.

As concerns the policies developed in the field of domestic energy consumption, whether they take the form of energy benefits that help households to cover their energy needs or the form of energy saving policies, they are all characterized by fragmentation and inconsistencies. At this point, the question at stake is how effectively to integrate domestic energy policies within a comprehensive housing strategy. Critical in this direction is the assumption of measures to prevent the so called 'green gentrification' and safeguarding the important role of the small market players (such as architects, engineers, constructors, retailers etc.), thus ensuring the spread of produced benefits throughout society. Finally, within this context of growing concern about energy in recent years, we must consider the role of the social movements in drawing attention to energy issues and in fighting for the right to adequate housing through collective action.

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