

ENERGISE

EUROPEAN NETWORK FOR RESEARCH, GOOD PRACTICE
AND INNOVATION FOR SUSTAINABLE ENERGY 

Project acronym: ENERGISE
Title: European Network for Research, Good Practice and Innovation for Sustainable Energy
Grant Agreement number: 727642

COUNTRY REPORT:

AUSTRIA

EXTRACTED FROM D2.5: PRODUCTION OF 30 NATIONAL SUMMARY BRIEFS

Deliverable 2.5 description: 30 national summary briefs of national energy supply and demand.

Lead parties for deliverable: AAU

Deliverable 2.5 authors: Charlotte Jensen, Inge Rørpke (AAU), Gary Goggins, Frances Fahy, Eimear Heaslip (NUIG), Marko Hajdinjak, Desislava Asenova (ARC Fund), Mathias Claeys Bouuaert, Tomislav Tkalec, Lidija Živčič, Renda Bellmalle, Kristjan Čoklč, Camille Gomes (FOCUS), Edina Vadovics, Kristóf Vadovics, Jozsef Slezak, Gergő Horváth, Szandra Szomor (GDI), Marfuga Iskandarova, Audley Genus (KU), Eoin Grealis, Annika Musch, Henrike Rau (LMU), Eva Heiskanen, Senja Laakso, Jari Kolehmainen, Eeva-Lotta Apajalathi (UH), Julia Backhaus (UM), Laure Dobigny, Marlyne Sahakian (UNIGE).

Cite as: Jensen et al. (2018) *30 national summary briefs of national energy supply and demand*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.5.



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.



ENERGISE partners	Logo
National University of Ireland, Galway (NUIG), University Road, Galway, Ireland	
Aalborg Universitet (AAU), Fredrik Bajers Vej 5, Aalborg 9220, Denmark	
Kingston University Higher Education Corporation (Kingston), River House High Street 53-57, Kingston Upon Thames KT1 1LQ, United Kingdom	
Universiteit Maastricht (UM), Minderbroedersberg 4-6, Maastricht 6200 MD, Netherlands	
Université de Genève (UNIGE), 24 rue du Général-Dufour, 1211 Genève 4, Switzerland	
GreenDependent Institute (GDI), Eva utca 4, Godollo 2100, Hungary	
Ludwig-Maximilians-Universitaet Muenchen (LMU Muenchen), Geschwister-Scholl-Platz 1, Muenchen 80539, Germany	
Focus Drustvo Za Sonaraven Razvoj (FOCUS), Maurerjeva Ulica 7, Ljubljana 1000, Slovenia	
Applied Research and Communications Fund (ARC Fund), Alexander Zhendov Street 5, Sofia 1113, Bulgaria	
Helsingin Yliopisto (UH), Yliopistonkatu 4, Helsingin Yliopisto 00014, Finland	

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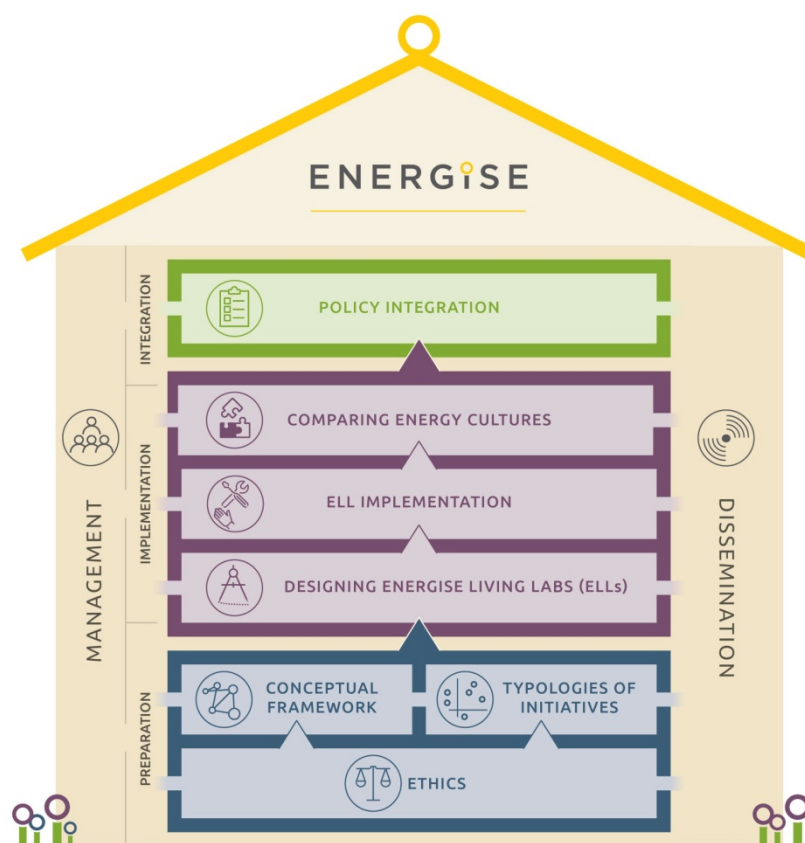
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ENERGISE PROJECT

ENERGISE is an innovative pan-European research initiative to achieve a greater scientific understanding of the social and cultural influences on energy consumption. Funded under the EU Horizon 2020 programme for three years (2016-2019), ENERGISE develops, tests and assesses options for a bottom-up transformation of energy use in households and communities across Europe. ENERGISE's primary objectives are to:

- **Develop an innovative framework** to evaluate energy initiatives, taking into account existing social practices and cultures that affect energy consumption.
- **Assess and compare the impact** of European energy consumption reduction initiatives.
- **Advance the use of Living Lab approaches** for researching and transforming energy-related practice cultures.
- **Produce new research-led insights** into the role of household routines and changes to those routines towards more sustainable energy.
- **Encourage positive interaction** between actors from society, the policy arena and industry.
- **Effectively transfer** project outputs towards the implementation of the European Energy Union.



INTRODUCTION

This document is one of 30 national briefs, demonstrating key aspects of national energy supply and demand dynamics. Each brief is comprised of five sections:

Section 1 summarises the energy profile of the country. The section provides basic quantitative information of demand demographics and usage profiles, market trends and energy supply profiles, as well as qualitative reflections on current national energy policy. ***For all the briefs, the quantitative information is derived from ec.europa.eu/eurostat (2015 data), eea.europa.eu (2015 data), and climate-zone.com, unless otherwise stated.***¹ The qualitative reflections are based on a literature reviews and desk-research. References for the literature review and the desk-research are provided in footnotes or in section five.

Section 2 summarises the nationally based sustainable energy consumption initiatives (SECI) that have been identified as part of ENERGISE WP2 framework (Jensen, 2017). Each SECI has been coded according to the Problem Framing Typology developed in ENERGISE WP2 (Jensen et al, 2017b).

Section 3 provides a *good practice* example of a national SECI that corresponds to category 3: “Changes in Everyday Life” or 4: “Changes in Complex Interactions” in the Problem Framing Typology. Please refer to Jensen (2017) and Jensen et al (2017b) for more information on the way the data for the good practice SECIs has been researched and documented.

Section 4 provides a brief summary of major nationally specific trends and their implication for energy consumption policies.

Section 5 provides an overview of sources used for qualitative assessments, and can be used as inspiration for further reading.

The national briefs provide contextual socio-material information for the further work to be carried out in Work Package 4, Work Package 5 and Work Package 6 in ENERGISE.

1.1 WP2: TYPOLOGIES OF ENERGY INITIATIVES

ENERGISE WP2 is a systematic criteria-guided review and classification of existing sustainable energy consumption initiatives from 30 European countries (EU-28, Switzerland, and Norway), which provides a comprehensive European database of energy initiatives involving households, and related typologies of sustainable energy consumption initiatives. This extensive synthesizing work guides the selection of Living Lab design elements for ENERGISE and future energy consumption research, policy and practice.

¹ Some piecharts will be empty, as no information is available.

This is done in order to

- Construct innovative typologies of sustainable energy consumption initiatives that can inform further research and action.
- Identify key success factors and related indicators, focusing on individual-level, collective, organizational, institutional and societal aspects of energy consumption, which will inform subsequent WP 3 (Designing Living Labs), WP 4 (ENERGISE Living Labs) and WP 5 (Capturing Energy Cultures).
- Progress the goals of the European Energy Union by creating a publicly archived open access dataset of sustainable energy initiatives across 30 countries in Europe.

Suggested further reading:

Jensen (2017) *Identification of key success factors and related indicators*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.2.

Jensen et al. (2017a) *Establishment of a comprehensive open access dataset of sustainable energy consumption programmes and Interventions*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.3.

Jensen et al. (2017b) *Constructions of typologies of sustainable energy consumption initiatives (SECIs)*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.4.

Sources of quantitative statistics (unless otherwise stated):

Climate data:

<http://www.climate-zone.com/continent/europe/>

Demography data:

http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing

http://ec.europa.eu/eurostat/statistics-explained/index.php/Educational_attainment_statistics

Dwelling type data:

[http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_dwelling_type_2015_\(%25_of_population\)_YB_17.png](http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_dwelling_type_2015_(%25_of_population)_YB_17.png)

Energy demand and supply quantitative data:

http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_consumption_in_households

Final energy consumption of households per capita data: <https://www.eea.europa.eu/airs/2017/resource-efficiency-and-low-carbon-economy/household-energy-consumption>

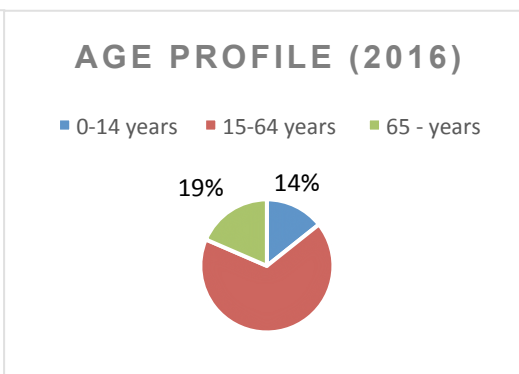
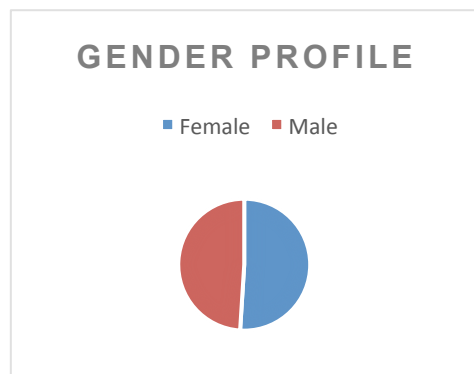
MWh conversion data:

<https://www.unitjuggler.com/convert-energy-from-toe-to-MWh.html?val=893.9>

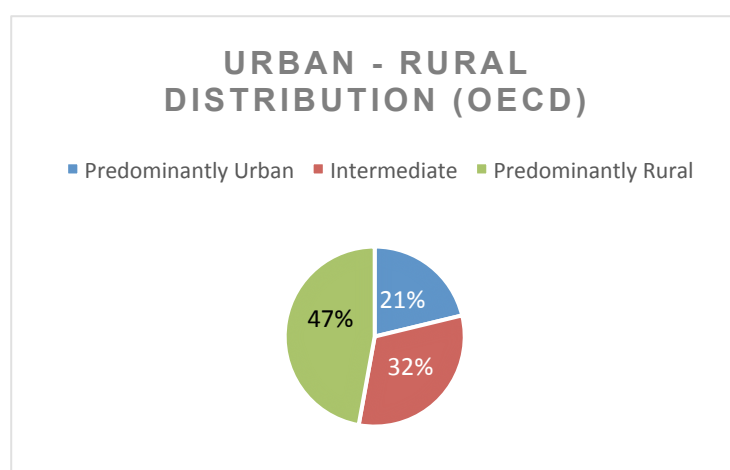
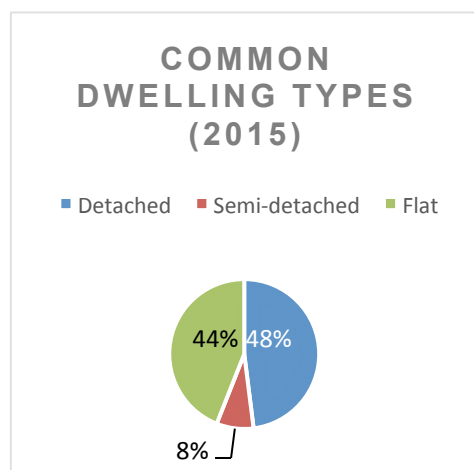
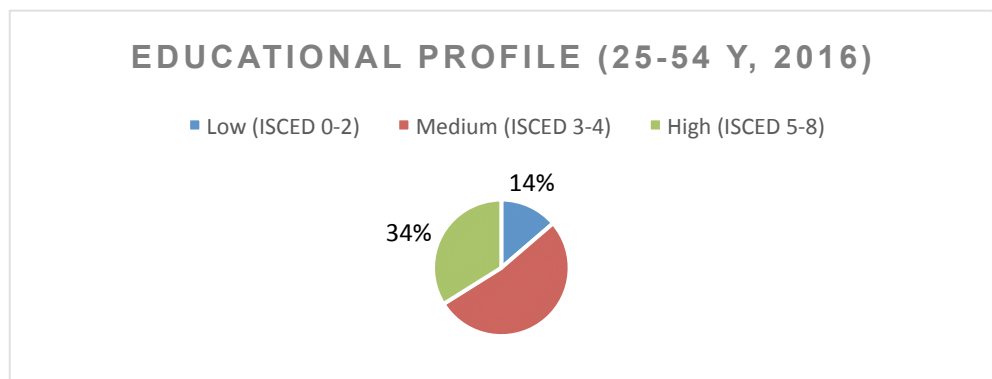
AUSTRIA

Authors: Marko Hajdinjak, Desislava Asenova

DEMOGRAPHY, ENERGY CONSUMPTION AND ENERGY SUPPLY

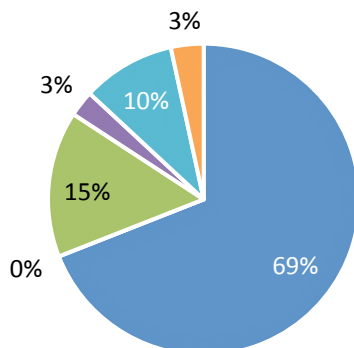


CLIMATE:
 temperate;
 continental,
 cloudy; cold
 winters with
 frequent rain in
 lowlands and
 snow in
 mountains;
 cool summers
 with occasional
 showers

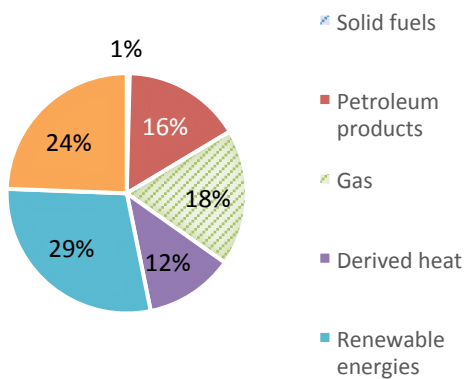


RESIDENTIAL FINAL ENERGY CONSUMPTION BY TYPE OF END-USE (2015)

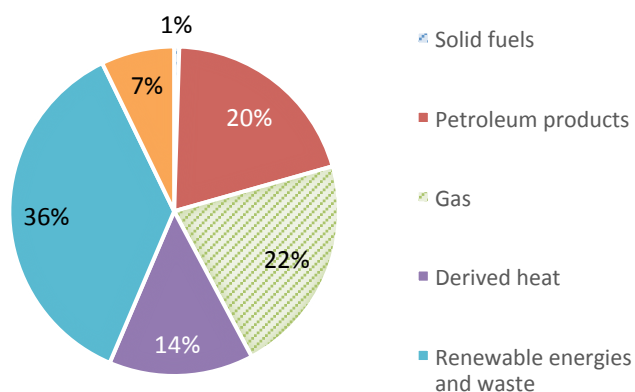
■ Space heating ■ Space cooling ■ Water heating ■ Cooking ■ Lighting and appliances ■ Other



SHARE OF FUELS IN THE FINAL ENERGY CONSUMPTION IN THE RESIDENTIAL SECTOR (2015)



SHARE OF FUELS IN FINAL ENERGY CONSUMPTION - RESIDENTIAL SPACE HEATING (2015)



FINAL ENERGY CONSUMPTION FOR HOUSEHOLDS, PR CAPITA (2015)

8.053 MWh

ENERGY SYSTEM AND ENERGY POLICY TRENDS

Energy system

Energy supply mix in Austria was in 2016 comprised of 36.4% oil, 29.5% renewable energy, 21.1% gas, 9.0% coal and 2.2% combustible waste. The remaining about 2% were covered by net imports of energy from abroad. Production of nuclear energy has been banned in Austria since 1978. The biggest share of renewable energy is produced by hydropower (34.7%). Biomass is also exploited in high amounts. Other sources are wind energy, geothermal energy and solar energy.²

Austria has a central position in the EU electricity network due to its geographical location. It is connected to all its neighbouring countries except Slovakia. The Austrian electricity market was fully liberalised in 2001, way ahead of the EU regulation in this regard. However, the market remains in the hands of a few large suppliers.³

The largest electricity supplier is Verbund AG, which accounts for approximately half of all electricity production in the country. Most of the energy generated by Verbund AG originates from hydropower. Other segments where Verbund AG is a leading producer are thermal power and wind power. The company is also the largest provider of district heating in Austria. Energie Allianz is the second-largest electricity company. It is owned by two federal states and the city of Vienna. Another big electricity producer and transporter is EVN Group.⁴

OMV AG, which is 31.5% state-owned, is the largest Austrian petroleum company that undertakes varied activities domestically and internationally, including petroleum exploration and production, refining, wholesale and retail sales. The company is most active in Austria and Romania. It also operates Austria's only refinery in Schwechat and is responsible for the operation of three natural gas storage facilities in the country.

Natural gas in Austria is mainly imported from Russia (over 50%), Norway and Germany. The main importers are EconGas and Russian Gazexport. EconGas is the largest Austrian gas supplier and is 50% owned by OMW AG. The Austrian gas grid is operated by three transmission system operators (TSOs GAS Connect Austria GmbH, BOG GmbH and TAG GmbH) along with 22 distribution system operators. Overall, there are 35 gas suppliers in Austria. The gas market was fully liberalised in October 2002, but it could be claimed that there is no real competition on the market. The share of sales of the three largest suppliers in 2012 was 72% with one supplier alone (Energieallianz) accounting for 60% of the gas market.⁵

Particular socio-material aspects that influence energy consumption

Electricity accounts for 24.7% of overall energy consumption of households. Being the most popular bio fuel in the last decade, wood has a share of 19.7%, while natural gas is third with 17.5% of overall consumption of households. The share of renewables in the overall energy consumption of

² Starlinger, T., Trenkwalder, A. and Kubr, E. (2018). *Energy 2018. Austria*. Available at: <https://www.globallegalinsights.com/practice-areas/energy-laws-and-regulations/austria>

³ OECD (2016). *Austria. Fossil Fuel Support Country Note*. Organisation for Economic Co-Operation and Development. Available at: <http://stats.oecd.org/fileview2.aspx?IDFile=3d0fee0c-fc32-4a5e-b988-ac98bc5c48ca>

⁴ Wikipedia (2018). *Verbund*. Available at: <https://en.wikipedia.org/wiki/Verbund> ; Wikipedia (2018). *EVN Group*. Available at: https://en.wikipedia.org/wiki/EVN_Group

⁵ OECD (2016). *Austria. Fossil Fuel Support Country Note*.; OECD/IEA (2014). *Energy Policies of IEA Countries. Austria*. Available at: <https://www.iea.org/publications/freepublications/publication/Austria2014.pdf>

households in 2015-2016 was 4.7% which considerably exceeds the share of coal (0.3%).

The largest share of annual electricity consumption of households goes to heating (23%) followed by cooling and freezing (13%), water heating (10%), cooking (9,6%), dishwashers (5,7%), kitchen and domestic appliances (4.2%), laundry washing (4.1%) and others.⁶

The overall consumption of district heating in Austrian households increased by 2.7% (comparing 2013/2014 and 2015/2016) and the consumption of renewables increased by 15.9% in the same period.

Electricity price for households in 2017 was 19.5 euro cents per kWh which is slightly lower than the EU average for the same period (20.41 euro cents per kWh).⁷

Energy poverty has not been widely discussed in Austria but still it exists. Rising fuel prices, energy inefficient housing and falling incomes could be claimed to be the reason behind the emergence of energy poverty. In 2011, around 12.6% of the Austrian population were at risk of income poverty. According to the European Union Statistics on Income and Living Conditions, in 2011 219,000 people (2.6% of the population of Austria) claimed that they were not able to keep the entire apartment adequately warm. However, since there is no official definition of energy poverty in Austria, specific quantitative data on the issue is still scarce and further research in the field is needed in order to draw some general conclusions.⁸

Current Trends in Energy Policy

Austria has set a target to increase energy efficiency by 20% by 2020. Furthermore, with the adoption of the National Renewable Energy Action Plan in 2010 the country aims to increase the share of renewable energy in final energy consumption to 34% by 2020 and to raise the share of renewables in electricity consumption to 71% by 2020. Another target set in the Energy Strategy of Austria is to achieve 16% reduction of greenhouse gas emissions in non-ETS sectors and 21% reduction of greenhouse gas emissions in ETS sectors by 2020.

Since household sector accounts for approximately 31% of national energy consumption, the energy saving measures are mainly focused on buildings. By 2020, Austria aims to achieve the thermal renovation of all buildings constructed between 1950 and 1980. For that purpose, the country provides funding for housing support programmes, including building renovations and subsidies for energy-efficient or renewable heating systems.

With the adoption of the Electricity Industry and Organisation Act (EIWOG) in 2010, smart meters and informative billing were introduced in Austria. The mandatory timetable for the rollout of smart metering services in Austria was set with a decree of the Ministry of Economy from 2012. The decree says that by 2019 all electricity network operators in Austria have to equip at least 95% of all

⁶ Statistics Austria (2018). *Energy Consumption of Households*. Available at: http://www.statistik.at/web_en/statistics/EnergyEnvironmentInnovationMobility/energy_environment/energy/energy_consumption_of_households/index.html

⁷ Statista (2018). *Electricity Prices for Households in Austria from 2010 to 2017*. Available at: <https://www.statista.com/statistics/418108/electricity-prices-for-households-in-austria/>

Statista (2018). *Electricity Prices for Households in the European Union from 2010 to 2017*. Available at: <https://www.statista.com/statistics/418049/electricity-prices-for-households-in-eu-28/>

⁸ Berger, T. (2012). *Energy Poverty – From a Global Perspective to Austria*. Available at: http://erscp2012.eu/upload/doc/ERSCP_Full_Papers/BergerT_ERSCP_2012_fullpaper.pdf

metering points. According to estimations, by 2015 around 300,000 electricity customers have already been equipped with smart meters.⁹

Trends in national campaigns

In 2012, the Austrian Federal Ministry of Economy, Family and Youth introduced and started a support programme for thermal modernisation of private houses and companies. Subsidies of €70 million were allocated for the private residential buildings and €30 million for the corporate sector for the installation of outer shells of buildings and the purchase of new boilers and windows. In result, in 2012 approximately 12,000 buildings were modernised using only 77% of the originally assigned budget. It was estimated that a reduction of CO₂ emissions by 3.3 million tonnes was achieved as a result of the measures applied. Along with the thermal modernisation programme, different trainings and instructions are also organised addressing energy saving measures.

The Federal Ministry of Agriculture, Forestry, Environment and Water Management also launches programmes for the implementation of the Austrian climate strategy. An example of such initiative is Klima:active. It is Austrian national climate protection initiative that started in 2004 and includes several programmes aimed at different target groups of the household sector. Its objective is to reduce heating costs and CO₂ emissions in buildings through modernisation of large residential buildings, support for passive housing and information campaigns directed at households. Klima:aktiv has introduced a building standard for residential and office buildings, for new buildings and for renovations.¹⁰

Some national programmes and initiatives aimed at coping with energy poverty in Austria and increasing the energy efficiency of low income households have also been implemented. Examples are: i) RedEn – Reduction of Energy Poverty Through Building Renovation with the Participation of Residents; ii) Combating Energy Poverty; iii) EC-LINC; iv) Request2Action. All these programmes and initiatives are mainly focused on energy counselling of the inhabitants for energy efficiency in appliances and behaviour and are mostly a combination of financial support and obligatory energy counselling to increase the energy efficiency on the behavioural level.¹¹

⁹ (2011) Austria. Energy Efficiency Report. Available at: <https://library.e.abb.com/public/00e3b8735587fad9c12578aa004bb3c1/Austria.pdf>;

Jellinek, R. (2015). *Energy Efficiency Trends and Policies in Austria*. Available at: <http://www.odyssee-mure.eu/publications/national-reports/energy-efficiency-austria.pdf>







¹⁰ Velten, E. K., Donat, L., Prah, A. and Banasiak, J. (2014). *Assessment of Climate Change Policies in the Context of the European Semester. Country Report: Austria*. Berlin: Ecologic Institute and eclareon GmbH. Available at: https://www.ecologic.eu/sites/files/publication/2014/countryreport_at_ecologiceclareon_ian2014_0.pdf;


(2018). *Klima:active website*. Available at: https://www.klimaaktiv.at/english/about_klimaaktiv.html ;
(2011). Austria. Energy Efficiency Report. Available at: <https://library.e.abb.com/public/00e3b8735587fad9c12578aa004bb3c1/Austria.pdf>

¹¹ Athavale, S. (2017). *Energy Poverty in Austria*. Austrian Energy Agency. Available at: <http://www.anre.ro/download.php?f=fq59qq%3D%3D&t=wOutwdHbn8%2BcmlPfrrV5ps%3D>













OVERVIEW OF NATIONAL SECIS

Below please find a list of Austrian SECIs that have been researched and documented through WP2 of ENERGISE. The SECIs are researched, selected and documented based on a set of requirements and research interests (please see Jensen 2017 for details). The list should not be regarded as exhaustive or representative of all kinds of energy initiatives carried out in the country.

Energiesparcheck für den gesamten Haushalt		Changes in Individuals' Behaviour
Der 'grünste' Haushalt im "Ökoenergieland"		Changes in Individuals' Behaviour
Die Umweltberatung		Changes in Individuals' Behaviour
TopProdukte		Changes in Technology
Förderungsaktion thermische Sanierung für Private		Changes in Technology
SMERGY		Changes in Individuals' Behaviour
Grüne Zone		Changes in Individuals' Behaviour
Österreich spart Energie		Changes in Individuals' Behaviour
klima:aktiv Energiesparcoach		Changes in Individuals' Behaviour
Initiative Energiberatung Niederösterreich		Changes in Technology
Niederösterreichische Energiespar-Initiative		Changes in Individuals' Behaviour
EVN Energieberatung		Changes in Individuals' Behaviour

Energiesparen zum Weitersagen		Changes in Individuals' Behaviour
Ich tu's		Changes in Individuals' Behaviour
Sanierungswegweiser		Changes in Technology
Wir leben 2000 Watt		Changes in Complex Interactions
Sonnenkraftwerk Zwentendorf		Changes in Technology
Kostenloser Stromsparcheck der Caritas		Changes in Technology
Haushaltsgerätetausch		Changes in Individuals' Behaviour
Energiebewegung NÖ		Changes in Complex Interactions
Rette deine Insel		Changes in Individuals' Behaviour
Energie-Fuehrerschein		Changes in Individuals' Behaviour
R.U.S.Z		Changes in Everyday Life Situations
Sanierung Wohnanlage Johann-Böhm-Straße in Kapfenberg		Changes in Individuals' Behaviour
Autark leben		Changes in Technology
Energieampel auf „Grün“		Changes in Individuals' Behaviour
Energiechecker im Sprengel		Changes in Individuals' Behaviour

Energiepartner von nebenan		Changes in Individuals' Behaviour
Stromsparmeister/Stromsparbuch		Changes in Individuals' Behaviour
klimaaktiv Maker Challenge		Changes in Technology
Kreative Restekueche		Changes in Everyday Life Situations
Passivhausdorf zum Probewohnen		Changes in Technology
Der Haushalt als Aktionsfeld – Gute Ernährung und Nachhaltiger Konsum für Klimaschutz und Energieeffizienz		Changes in Individuals' Behaviour
Gruppenthermographien als Motivationsfaktor für CO2 sparende Maßnahmen in der Sanierung		Changes in Technology
POWER HOUSE NZC: Powerhouse Nearly Zero Challenge		Changes in Technology
USmartConsumer project		Changes in Individuals' Behaviour
SMARTER TOGETHER: Smart and Inclusive Solutions for a Better Life in Urban Districts		Changes in Complex Interactions
EEPLIANT: Energy Efficiency Compliant Products 2014		Changes in Individuals' Behaviour
iBROAD: Individual Building (Renovation) Roadmaps		Changes in Technology
IN-BEE: Assessing the intangibles: the socioeconomic benefits of improving energy efficiency		Changes in Individuals' Behaviour
PRO.MOTION: Creating liveable neighbourhoods while lowering transport energy consumption		Changes in Individuals' Behaviour
EGS: Energy, Education, Governance and Schools. A European school panel for involving local communities in energy efficiency programs		Changes in Complex Interactions

TRIBE: TRaining Behaviours towards Energy efficiency: Play it!		Changes in Individuals' Behaviour
TOPTEN ACT: Enabling consumer action towards top energy-efficient products		Changes in Individuals' Behaviour
EL-EFF REGION: Boosting efficiency in electricity use in 8 European regions		Changes in Individuals' Behaviour
EC-LINC: Energy Check for Low Income Households		Changes in Individuals' Behaviour
COMEON LABELS: Common appliance policy – All for one, One for all – Energy Labels		Changes in Individuals' Behaviour
ESD II: European Solar Days II		Changes in Technology
TRENDY TRAVEL: Emotions for Sustainable Transport		Changes in Everyday Life Situations
INTENSE: From Estonia till Croatia: Intelligent Energy Saving Measures for Municipal housing in Central and Eastern European Countries		Changes in Individuals' Behaviour
Windkraft		Changes in Technology
Responsible Cooling		Changes in Everyday Life Situations
SPIRIT: Energising Faith Communities		Changes in Individuals' Behaviour
TOGETHER on the move: Energy Efficient Transport training for immigrants		Changes in Everyday Life Situations

‘GOOD PRACTICE’ EXAMPLE OF AUSTRIAN SECI



The Repair and Service Centre (R.U.S.Z.)

Description

The Repair and Service Centre was founded in 1998 in Vienna as a socio-economic company and converted into a company with limited liability in 2007. Since then, it has been managed as a social enterprise. RUSZ provides employment to people who were unemployed for a long time. Broken household appliances are repaired, improved and/or made less energy-consuming.

Contextualization

The Repair and Service Centre operates as a social enterprise, pursuing social and ecological goals. In this sense, it is not a profit-orientated enterprise, but aims only at earning enough to cover its operational expenses. RUSZ is a pioneering company in the field of community economy. A vital part of its social mission is hiring and training of long-term unemployed people. The ecological mission of RUSZ is to protect the environment by preventing or decreasing the amount of electronic scrap. Instead, broken or malfunctioning household appliances are repaired, recycled and reused. Those that cannot be repaired are properly dismantled and disposed of. RUSZ is also very active in trying to raise public awareness and influence the decision-makers at national and EU level regarding the resource protection, obligatory commitment to longevity and the Circular Economy. In this sense, RUSZ has become a competence centre for resource protection in relation to electrical appliances.

RUSZ co-operates with the City of Vienna, the Austrian Ministry of Environment, the social partners, scientific institutions and the media. The Repair and Service Centre is an interesting example of a social enterprise, which helps people to make a positive impact on the environment by repairing different products that would otherwise be discarded. Not many other initiatives included in the ENERGISE Grid focus on repairing products as a measure for saving energy and avoiding CO2 emissions.

Aims and objectives

The main aim of RUSZ is to reduce the amount of electronic waste – old or broken household appliances are repaired and reused. Most appliances repaired at RUSZ are “upgraded” to become more energy efficient.

Methods for Intervention

The Repair and Service Centre gives its costumers the possibility to decide for themselves whether it pays off to repair an old device by giving them a cost estimate and a reliable prediction about how long the device could still be used after being repaired. The favourable prices for RUSZ's quality repair services generated a massive demand for the most diverse repair services. RUSZ repairs almost all devices working on electricity. This includes all types of domestic appliances, entertainment electronics, lamps, air conditioning, heaters, sports equipment, electric tools, electric toys, garden tools, and

other devices. The repairs are not conducted only in the Centre. RUSZ technicians can visit costumers in Vienna and the surrounding area at home or in the office to repair household appliances, which costumers cannot bring to the Centre or which are too sensitive or valuable to risk the transportation.

Since 2005, RUSZ is operating (in cooperation with Ö3 – one of the nationwide radio stations, and Caritas Österreich) the Ö3-Wundertüte, a highly successful mobile phone collection system. Since 2010, RUSZ has also been implementing the project “Donate your old washing machine,” in which old washing machines are given new life for the second-hand market. “Rent a washing machine” is another service provided by RUSZ. Instead of having to buy a device, clients can rent one by paying a one-time deposit and a monthly flat rate. If the machine needs to be repaired, the cost of repair is included in the rent, and if the appliance cannot be repaired, RUSZ replaces it with a new one. In addition to the repair shop, RUSZ also runs a second-hand shop, where repaired and upgraded household appliances (washing machines, electric cookers, dishwashers, etc.), coffee makers, audio-visual equipment and other devices can be purchased. All devices were tested and have a one year warranty. RUSZ was a co-founder of the European umbrella organisation for social economy enterprises - RREUSE, with its own office in Brussels. It is also a co-founder of the Austrian umbrella organization RepaNet Austria.

Steps of implementation

1998:	Founded in 1998 as a socio-economic company for repairs of electrical appliances.
1999:	The favourable prices for RUSZ's repair services generated a massive demand for the most diverse repair services. The management decided to set up the repair network in Vienna in 1999 with involvement of small repair companies.
Since 2005:	Together with Ö3 and Caritas Österreich, RUSZ developed the Ö3-Wundertüte, a highly successful mobile phone collection system.
2007:	The originally socioeconomic enterprise was privately operated from 2007 onwards and developed into a successful social enterprise it is today, while maintaining its original principles.
Since 2010:	Since 2010, RUSZ has been implementing the project “Donate your old washing machine.” Old washing machines people no longer need are repaired and then sold in the second-hand shop.
2015:	As a result of media campaign and lobbying by RUSZ and its partners, in December 2015 the EU Commission adopted the Action Plan for the Circular Economy, creating an important momentum to support the transition towards a more circular economy in the EU. The Plan included legislative proposals on waste, with long-term targets to reduce landfilling and increase recycling and reuse.

Results/outcomes

Attractive prices and good quality of RUSZ's repair services attract a constantly growing number of clients, which means that less electronic waste is generated and less energy consumed for production of new electronic appliances.

A customer survey, which RUSZ conducted together with Vienna University students, showed that more than 80% of customers are very satisfied with services provided by RUSZ. Over the years, more than 400 long-term unemployed people worked at RUSZ.

The role of the households

Households are involved as customers of RUSZ. They either have their appliances and devices repaired, or leave them at the Centre to be repaired and sold in its second-hand shop.

Location

The Repair and Service Centre is located in Vienna.

Was/is the initiative successful

Under the presidency of RUSZ Managing Director Sepp Eisenriegler, European network RREUSE achieved its largest lobbying success within the framework of EU legislation (Waste Electrical and Electronic Equipment Directive). RUSZ has won several prizes for its social and ecological commitment: the City of Vienna's Environment Award 2013, the ENERGY GLOBE Award 2007, the 2009 Climate Protection Prize and the first place in "Ideas against Poverty" in 2009.

Textual and communicative aspects of initiative

The ecological aspect of the work of the RUSZ is based on preservation of the resources and protection of the environment through reuse of electrical appliances that can be repaired, and through responsible dismantling and disposing of old equipment that cannot be repaired. The energy consumption is seen through the prism of consumer protection, social economy and sustainability. This means that the initiative is pursuing simultaneously social objectives (helping consumers and providing employment to people from the margins of the labour market), environmental objectives (nature protection through conservation of resources and waste reduction) and economic objectives (job creation, supply of resources through improving efficiency and recycling). In addition to its repair services, RUSZ also operates as a competence centre for consumer protection, social economy and sustainability.

The physical/technological aspects of the initiative

RUSZ efforts are not directed only at improving the energy efficiency of the appliances they repair. By giving old and/or broken appliances new life, RUSZ "saves" energy and emissions that would be spent for the production and transport of new devices. RUSZ has developed its own "Washing machine tuning" technique – a used washing machine is transformed into an energy-efficient machine that fulfils the highest energy efficiency standards of machines manufactured today. The technical innovation "Washing machine tuning" has resulted in a water saving of 30% and an energy saving of 20% (with the same cleaning performance). The technique can also be adapted for dishwashers. Together with the Austrian Standards Institute and other partners, the RUSZ has developed the eco-design label for long-lasting and easy-to-repair designed electronic devices: ON-rule ONR 192102 and ONR 192102: 2014.

CONCLUDING REMARKS AND POLICY IMPLICATIONS

Austrian national energy policy is focused on increasing energy efficiency and enlarging the share of renewables in the national energy mix. Two other priorities of the country underline the technological aspect of energy conservation – thermal insulation of old apartment buildings and introduction of smart metering. The ENERGISE team analysed 54 SECIs implemented in Austria. Due to the limited resources (time constraints and language barriers), the mapping of European SECIs cannot be regarded as comprehensive, and undoubtedly numerous local initiatives across the continent remained undocumented. Nevertheless, the high number of SECIs identified in Austria shows that this country is well above the EU average when it comes to number and diversity of energy-saving projects.

The Austrian SECIs were classified as follows:

- Changes in Technology: 14 (26%)
- Changes in Individuals' Behaviour: 31 (58%)
- Changes in Everyday Life Situations: 5 (9%)
- Changes in Complex Interactions: 4 (7%)

If we look at the ways these initiatives try to achieve the goal of better energy efficiency, we can quickly notice that providing tips and information is by far the most frequent approach. Twenty-three SECIs use different ways for providing user-friendly advice to households – ranging from information on how to purchase more efficient domestic appliances and other energy-consuming products, to innovative ideas about how to reduce the amount of energy used for cooking, lightning, heating and cooling. Four SECIs include an element of comparing and/or competing with other households in terms of achieved energy savings, while three focus on exchange of good practices among citizens. Five projects are closely related to the national policy of renovation of old buildings – as a final outcome of few of them, old apartment buildings or detached houses were transformed into energy plus buildings. Finally, a small number of projects target vulnerable households, using low-cost measures to improve the energy efficiency and bring down the energy costs in low income households.

Although energy poverty in Austria is not such a problematic issue as in many countries in Eastern and Southern Europe, it is a concern for a growing number of households due to the rising energy costs in combination with stagnating incomes. Many people are therefore attracted to the idea of repairing, reusing or sharing resources, which explains the success of the Vienna-based 'Repair and Service Centre,' described in more detail in section 3. RUSZ is inspiring because it operates as a social enterprise, which is not profit-oriented, but facilitates the transition towards a circular economy, helping the Vienna residents to reduce their environmental footprint by repairing and reusing different products that would otherwise be thrown away. The focus on 'repair and reuse' differentiates RUSZ from most other SECIs in the ENERGISE Database. Most often, initiatives that promote measures for saving energy and avoiding CO₂ emissions through a different use of domestic appliances prioritise purchasing of more efficient products or put emphasis on the energy that could be saved by turning the appliances off rather than leaving them in stand-by mode. RUSZ therefore represents a good model to be followed on the grass-root level, but also a valuable resource for policy-makers, as testified by the Action Plan for Circular Economy adopted by the European Commission.

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