



European Construction Sector Observatory

Policy measure fact sheet

Austria

Thermal Renovation Vouchers

Thematic Objective 3

January 2018

In a nutshell

| | |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Implementing body: | Austrian Ministry of Science, Research and Economy |
| Key features & objectives: | An application-based programme – processed by building societies (“Bausparkassen”) - aiming at incentivising private individuals, tenants, commercial building owners to carry out eco-friendly modernisation works. |
| Implementation date: | 2009-present |
| Targeted beneficiaries: | Owners, co-owners and tenants of single or two-family houses, multi-story buildings, commercial buildings |
| Targeted sub-sectors: | Eco-friendly renovation; energy efficiency of buildings |
| Budget (EUR): | 524.2 million (2009-2016) 43.5 million (2017) |

In 2008, Austria was tasked with meeting a number of requirements as part of the EU’s 2020 climate & energy package¹. One of the key objectives was to achieve a 20% improvement in energy efficiency in the housing sector. At the time, the private residential housing sector accounted for approximately 75% of the total spatial heating demand in Austria. The potential to achieve very significant energy savings in this sector through targeted measures was evident².

To achieve its efficiency goals, the Austrian government recognised that policy measures, such as financial incentives, would be needed to encourage building and homeowners to undertake energy saving renovations.

They were also necessary to help raise the rate at which Austria’s old building stock are thermally renovated from 1% (achieved in the 1990s) to at least 2%, over a period of 10 years³.

In October 2008, the Austrian government launched “Stimulus Package II” which featured, for the first time, the thermal renovation voucher programme. The main objective was to boost counter-cyclical spending and employment, increase energy savings in the building sector and thereby reduce CO² emissions.

Over the years, the programme has been the subject to a variety of changes and different focus areas. After the success of the 2009 package, the Austrian government decided to provide more technological impulses and incentives for energy efficient building renovation⁴. In 2016, the programme focused on comprehensive projects in which renovations have to reach a designated energy efficiency level.

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1

General description

The thermal renovation subsidy scheme can be applied to private residential housing or commercial housing.

Overall, the programme distinguishes between 4 different application types:

For private residential housing:

- (a) Single or two-family houses
- (b) Multi-story buildings

For commercial buildings:

- (c) Comprehensive renovation
- (d) Individual measures

Only buildings over 20 years old, based on the year that the building permit was issued, are eligible to apply for a subsidy.

Renovation work must aim to improve the thermal insulation of the exterior envelope of the building. This includes exterior wall insulation, top floor or roof insulation or lowest floor or basement insulation, and the renovation or replacement of windows and external doors. For the so-called 'model renovation' ('Mustersanierung') – a new type of subsidy that was only introduced in 2016 – renovation work can also cover heating systems, heat pumps, local and district heating, thermal solar system and accompanying measures. Eligible costs include the cost of materials, assembly and planning.

The subsidy covers up to 30% of the eligible costs or a maximum of EUR 8,000 for a 'model renovation'. When using insulating materials from renewable raw materials, a surcharge of up to EUR 1,000 can be claimed (except in the case of a 'model renovation'); however, the maximum subsidy of up to 30% of the eligible investment costs also applies in this case.

Each of the four thermal renovation types must meet specific energy efficiency conditions to qualify for funding.

| Type of renovation | Conditions |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model renovation | <ul style="list-style-type: none"> • Reduce the heating demand to max. 40 kwh/m² under ≥ 0.8 surface-to-volume ratio, i.e. max. 25 kwh/m² under surface-to-volume ratio ≤ 0.2 • Heat the building using at least 80% renewable energy • 2 of 8 accompanying measures |
| Comprehensive renovation – "klimaaktiv standard" | Reduce the heating demand to max. 50 kwh/m ² under surface-to-volume ratio of ≥ 0.8 , i.e. max. 30 kwh/m ² under surface-to-volume ratio ≤ 0.2 |
| Comprehensive renovation – "good standard" | Reduce the heating demand to max. 63 kwh/m ² under surface-to-volume ratio of ≥ 0.8 , i.e. max. 31.5 kwh/m ² under surface-to-volume ratio ≤ 0.2 |
| Partial renovation 40% | Reduce the heating demand by at least 40% |

Applications are processed by one of the Austrian building societies ("Bausparkassen"). In 2017, the programme opened to applications on 3rd March and remains open until the allocated funding is exhausted. Work listed in an application must be carried out by an authorised company. Invoices must be sent to the applicant in person and to the location address of the redeveloped site, as specified in the application property. Invoices that only cover material costs without the corresponding calculation of an authorised company are not supported.

2

Achieved or expected results

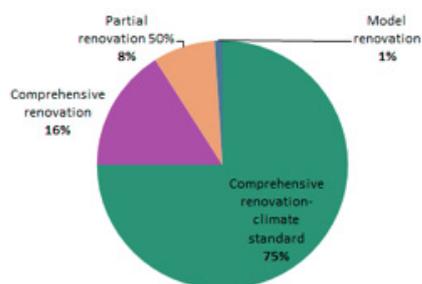
The results achieved by the thermal renovation initiative are documented in detail in the annual release of the Environmental Support Report⁵. The report shows that the financing of the programme has fluctuated considerably over the years. Funding peaked in 2013 with a total of EUR 107.48 million provided by the Austrian government. Since then, funding has been progressively scaled down to EUR 73.95 million in 2014, EUR 70 million in 2015 and EUR 41.4 million in 2016. This trend has slightly reversed in 2017, with 43.5 million being made available to fund renovation projects⁶.

Over the years, the programme's focus has increasingly shifted away from commercial buildings towards providing support for private residential housing renovations.

In 2009, around 60% of funds were allocated to private residential housing and 40% to commercial buildings. Since 2011, the proportion changed to about 70% vs 30%⁷.

Figure 1 shows that in 2016, the programme primarily supported 'comprehensive renovations – climate standard' (76%), followed by 'simple renovations' (16%), 'partial renovations 50%' (8%) and only 1% 'model renovations'.

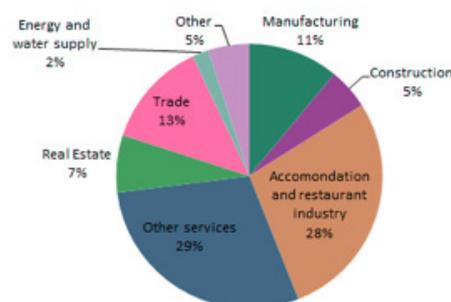
Figure 1: Use of renovation vouchers by type of renovation in 2016 – private residential housing



Source: Environmental Support Report (Umweltförderungsbericht) 2016⁸

In terms of the programme's support for commercial building renovations, Figure 2 shows that renovation vouchers were most widely used by organisations in the service sector and the accommodation and restaurant industry, as well as in trade and manufacturing.

Figure 2: Renovation voucher use for commercial buildings by sector



Source: Environmental Support Report (Umweltförderungsbericht) 2016⁹

Table 1 shows some of the key macroeconomic impacts that the programme has achieved. The environmental support report for the period of 2014-2016 shows **that the renovation voucher programme created 4,730 new jobs, including 4,230 full-time jobs, in 2016**. This equates to the creation of 13 new jobs, of which 12 were full-time jobs, per million Euros invested by the programme. This is a significant reduction compared on the results achieved in the previous year – in 2015, the programme created 15 new jobs, including 14 full-time jobs, per million Euros invested.

These investments resulted in gross production amounting to 605 million EUR and 254 million EUR in gross value added.

Table 1: Macroeconomic impact of the programme (2014-2016)

| | |
|----------------------------------|--------------------|
| Gross value of production | 605.07 million EUR |
| Gross value added (GVA) | 254.20 million EUR |
| Full-time jobs created | 4,230 |
| Total number of new jobs created | 4,730 |

Source: Environmental Support Report (Umweltförderungsbericht) 2016¹⁰

Table 2 shows the number of renovation projects that were funded by year (2009-2016), housing type (private residential and commercial buildings) and level of investment (private and public). In the first seven years of the programme, just under 110,000 renovation projects received a total of EUR 524.2 million in federal funding. Private residential renovation projects were awarded approximately 75% of the total funding and accounted for about 72% of the CO₂ emissions savings achieved - 480,392 tonnes between 2009 and 2016, at an average of 68,627 tonnes per year, and a total of 14,411,748 tonnes based on useful life. Commercial building renovations received the remaining 25% of funding and accounted for about 28% of the CO₂ emissions savings achieved - 186,391 tonnes between 2009 and 2016, at an average of 26,627 tonnes per year, and a total of 5,513,352 tonnes based on useful life.

Table 2: Impact of programme 2009-2016

| Year | Type of building | No. of projects | Private investment (EUR) | Federal funding (EUR) | CO ₂ reduction (t/year) | CO ₂ reduction (t) based on useful life | Energy savings (mw/h) |
|------|-------------------|-----------------|--------------------------|-----------------------|------------------------------------|----------------------------------------------------|-----------------------|
| 2009 | Private | 13.534 | 414.824.203 | 53.511.133 | 78.491 | 2.354.726 | - |
| 2009 | Comm | 1.029 | 161.444.799 | 33.940.447 | 48.134 | 1.428.982 | - |
| | Sub-totals | 14.563 | 576.269.002 | 87.451.580 | 126.625 | 3.783.708 | - |
| 2011 | Private | 15.632 | 556.290.589 | 57.917.411 | 99.671 | 2.990.122 | - |
| 2011 | Comm | 743 | 129.916.236 | 24.514.526 | 37.838 | 1.125.017 | - |
| | Sub-totals | 16.375 | 686.206.825 | 82.431.937 | 137.509 | 4.115.139 | - |
| 2012 | Private | 13.871 | 428.297.974 | 43.615.513 | 71.446 | 2.143.372 | 183.135 |
| 2012 | Comm | 501 | 88.559.203 | 17.500.801 | 27.308 | 800.955 | 83.274 |
| | Sub-totals | 14.372 | 516.857.177 | 61.116.314 | 98.753 | 2.944.327 | 266.409 |
| 2013 | Private | 22.026 | 676.577.255 | 94.760.761 | 88.871 | 2.666.145 | 242.085 |
| 2013 | Comm | 443 | 69.657.666 | 12.715.599 | 19.823 | 577.332 | 57.902 |
| | Sub-totals | 22.469 | 746.234.921 | 107.476.360 | 108.694 | 3.243.477 | 299.987 |
| 2014 | Private | 15.311 | 424.656.966 | 53.659.608 | 49.838 | 1.495.139 | 139.995 |
| 2014 | Comm | 412 | 106.904.248 | 20.285.133 | 21.340 | 628.909 | 628.909 |
| | Sub-totals | 15.723 | 531.561.214 | 73.944.741 | 71.178 | 2.124.047 | 208.758 |
| 2015 | Private | 16.126 | 463.170.182 | 56.077.769 | 53.799 | 1.613.968 | 152.121 |
| 2015 | Comm | 385 | 71.832.787 | 14.326.690 | 21.138 | 627.854 | 65.550 |
| | Sub-totals | 16.511 | 535.002.969 | 70.404.459 | 74.937 | 2.241.822 | 217.671 |
| 2016 | Private | 9.714 | 310.800.816 | 33.514.137 | 38.276 | 1.148.276 | 116.403 |
| 2016 | Comm | 192 | 47.231.252 | 7.876.353 | 10.810 | 324.303 | 35.203 |
| | Sub-totals | 9.906 | 358.032.068 | 41.390.490 | 49.086 | 1.472.579 | 151.606 |
| | TOTALS | 109.919 | 3.950.164.176 | 524.215.881 | 666.782 | 19.925.099 | 1.144.431 |

Source: Environmental Support Report (Umweltförderungsbericht) 2016¹¹

In March 2017, the Austrian Ministry of the Environment reported that since its launch in 2009, the programme has provided funding to support the thermal renovation of more than 113,300 private residential houses and apartments and 4,300 commercial buildings.

Ministry sources state that the total subsidies have to this point amounted to approximately 627 million EUR, while the Environmental Support Report comes to a total of 524.22 million EUR of public investment¹².

According to government sources, the programme has also produced considerable nationwide return on public investment. Statistics from 2016 show that 1 million EUR funding attracts an average of 8 million EUR in investment volume. Directly linked to this investment is the annual backup of an average of 8,000 jobs¹³. Data from 2016 state that the 4.6 billion EUR invested since 2009, saved 22.2 million tons of CO₂¹⁴.

3

Perspectives and lessons learned

From a **government perspective**, the thermal renovation voucher programme has exceeded expectations since its launch in 2009. According to the Ministry, it demonstrates that Austrian society recognises the correlation between lower energy consumption and lower energy costs. The Ministry of the Environment also argues that the high level of demand for the programme is clear evidence that people want to contribute to environmental protection and the growth of eco-friendly businesses¹⁵.

From a **government perspective**, the thermal renovation voucher programme has exceeded expectations since its launch in 2009.

From an **industry perspective**, the managing director of the Austrian Stone and Ceramic Association argues that renovation vouchers have been needed for a long time. Indeed, the association was a proactive advocate for the introduction of a subsidy to incentivise thermal insulation works prior to the launch of the programme. Since its launch, the association has continued to advocate for the permanent provision of thermal renovation vouchers. According to the managing director, the thermal subsidy is an effective vehicle that is helping to reduce the emission of greenhouse gases and is also supporting the transition towards more sustainable energy consumption.¹⁶

From the **perspective of the environmental organisation 'Global 2000'**, the renovation voucher programme is a key instrument to accelerate the renovation of Austria's older building stock and achieve more energy efficiency. Together with other environmental organisations such as Greenpeace, Global 2000 is very critical of the drastic cuts to the programme in 2017. According to the organisation, these cuts are part of a declining trend away from the initial goal to raise the building renovation rate in Austria to 3% of the total building stock.¹⁷ In addition to the cuts at federal level, Global 2000 also criticises funding cuts at regional level.

The introduction of the multi-story renovation type in 2012 is in principle evaluated positively by Global 2000. However, more renovation types should, according to the organisation, be accompanied by larger funds. In their view, an increase from

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100 million EUR to 300 million per year would be an adequate amount to accelerate energy savings in Austrian buildings¹⁸.

From a **scientific research perspective**, the Austrian Institute for Healthy and Ecological Buildings (IBO)¹⁹ believes that renovation vouchers on their own will not enable Austria to reach its climate goals, as defined in the Paris Agreement.

Appropriate funding instruments must be accompanied by robust ecological criteria that are 100% aligned with climate goals and support sustainable innovation in the building sector. Compromise reached to make eco-friendly renovation more affordable should, according to the Institute, not be at the cost of eco-criteria, since calculated over the lifecycle of the building, these solutions can turn out to be costlier²⁰.

According to Passive House Austria²¹, Austria needs to assess all funding instruments, subsidies and building rules to analyse their impact on the climate and environment in order to comply with the Paris Agreement goal and not surpass 1.5% of global warming by 2050.

They argue that newly constructed buildings will only see their energy efficiency improved in 40 years, and therefore it is important to ensure that they meet the highest energy efficiency standards.

One of the key issues with renovation vouchers, from a sustainable building viewpoint, is the divergence in standards between one and two-family houses and multi-story buildings. Although almost 60% of the building surface area in Austria falls under the former category, heating systems are allowed to consume the twice as much per square metre.

Endnotes

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