Repräsentanz der Deutschen Wirtschaft
German-New Zealand Chamber of Commerce Inc.

HEALTHY HOME, HAPPY ENVIRONMENT

While spring has sprung in Germany, temperatures are plunging in New Zealand and winter is only a few footsteps away. Often Kiwis like to choose a rather humorous approach to this time of the year and are well-known for being hardened ´winter deniers` who still wear jandals and shorts – well, maybe jandals with socks if it' s really cold outside. In fact, many home owners and tenants in New Zealand don´t look forward to the winter season as they can´t enjoy the comforts of a warm and well insulated house – yet.

Many homes still cold and damp

According to New Zealand Green Building Council (NZGBC), the majority of kiwi homes are under-heated by international standards, falling at least 2 degrees Celsius short of the World Health Organisation´s minimum indoor daytime temperature of 18 degrees Celsius. Historically, much of New Zealand´s housing was built at a time when insulation was considered an optional extra. Most of those houses are still around and many of them are damp and uninsulated compared with current standards. Subsequently New Zealanders are heating their houses with inefficient heating solutions which often means costly winter power bills. For new houses, minimum standards of insulation are defined by the requirements of the Building Code. The standards were first introduced nationally in 1978 and have been revised periodically since.

New Energy Efficiency policy

New Zealand is aiming towards a sustainable low emissions energy system. At present, approximately 80 per cent of electricity comes from renewable energy sources, primarily hydropower and geothermal power sources. Recently the ´Zero Carbon Bill` was introduced and is understood to support New Zealand' s commitments under the Paris Agreement. The Government aims to reduce all emissions to net zero by 2050. According to the Ministry for the Environment energy is, alongside agriculture, New Zealand´s biggest contributor of the country´s total greenhouse gas emissions. That' s why the Energy Efficiency and Conservation Authority (EECA) is responsible for implementing programmes to improve the energy efficiency of New Zealand´s homes and businesses. As part of their policy, projects like ´Warmer Kiwi Homes` and Minimum Energy Performance Standards (MEPS) have been introduced. As cost is an obvious barrier to good home insulation, the ´Warmer Kiwi Homes` insulation programme is offering grants covering two-thirds of the costs for those who can't afford it. Grants covering a majority of the cost of heating appliances will also be available from July 2019. This February, the Ministry for Urban Housing and Development released a new Healthy Homes Guarantee´s Act (HHGA) defining requirements for insulation in rental properties. It requires insulation to be up to a standard equivalent to the 2008 building code standard for both ceiling and underfloor insulation. Meaning, the level of

existing ceiling insulation must be increased to 120mm. Ceiling and underfloor insulation is compulsory in all rental homes and must meet the insulation standards by 1 July 2019. Landlords who don´t meet that deadline face a NZ 4.000 dollar fine.

Healthier Kiwi Homes versus Skill Shortage

The EECA estimated that 33 per cent of the average New Zealand home´s power bill is spent on space heating, and predicts that by 2035, energy efficient practices and technologies could save New Zealanders up to NZ$2.4 billion dollars a year. A survey commissioned by the Auckland Council in 2013 gave an insight of how sustainably built houses will reduce hard costs, such as energy and water. They were using a tool called Homestar rating. The Homestar rating was developed by the NZGBC and the Building Research Association of New Zealand(BRANZ) in order to assess the level of sustainability in a house. The survey unveiled that at the moment, the average New Zealand house achieves just two Stars, and a new house based on New Zealand´s Building Code (NZBC) standard four Stars. As a comparison, homes rated five and six Stars can save between NZ$500 and NZ$700 dollars on energy and water bills per year. Another hurdle in the need to build more affordable and better performing houses, is the current skill shortage in the building sector. According to Building and Construction Minister Jenny Salesa the construction sector is one of the largest employers with nearly 10 per cent of the workforce engaged in construction-related occupations. The Ministry of Business Innovation and Employment (MBIE) has estimated New Zealand is about 30,000 construction workers short.

German efficiency in building helps Kiwis

But New Zealand doesn´t stand alone when it comes to more efficient and sustainable solutions in buildings across the country. German-New Zealand partnerships in the building sector have already made a difference which has led to increased building quality, reduced energy costs and lowered the carbon emission levels in New Zealand. Germany has a long history in using fossil fuels as their primary energy source. As part of the nation' s Climate Action Plan 2050 and to service its international commitments under the Paris Climate Agreement, they´ve decided to phase out coal by 2038. Renewable energy in Germany is mainly based on wind, solar and biomass and was declared the country´s number-one source of electricity from 2015 on. At this time, the electricity consumption covered by renewable energy rose above 30 per cent. The Governments goal is that energy supply must be almost completely decarbonised and renewables its main source by 2050. When it comes to the building sector, the Federal Government plans to invest heavily in programmes to implement high energy standards, according to the new Climate Action Plan. Heating, cooling and power supply in Germany´s building stock will be switched to renewable energy. Current figures obtained by the German Federal Association of the Energy and Water Industries (BDEW) show, gas and oil are the primary energy sources for heating Germany´s building stock (75 per cent). Solid fuels like wood, wood pellets, coal and coke make 6,1 per cent, while the number of heating solutions that require electricity such as heat pumps is extremely small. Unlike New Zealander´s, many Germans live in apartment buildings. According to the Federal Statistical Office most apartments are connected to a central heating

system which is operated through a district heating system or block-type thermal power station. As a world leader in the field of energy efficiency German technologies are featured in many different market segments such as insulation systems, insulated glazing, heating and cooling technologies. A recent Technology Showcase initiated by the German-New Zealand Chamber of Commerce shows that German companies generate a turnover of about US$67 billion dollars per year in the energy efficiency industry.

Some sustainable concepts from Germany, such as passive houses, have already been tested in New Zealand. 24 fully certified homes all over the country showcase how low energy use for heating and cooling can be. In fact, the same amount of power you use to run a fridge would heat a passive house for the whole winter keeping the temperature at 20 degrees Celsius throughout whole home.