

## The Netherlands: Dunavie Housing Corporation

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### Summary of the project

Housing Corporation Dunavie owns circa 8,000 rental dwellings in Katwijk aan Zee, the Netherlands, some of the dwellings are in detached housing or in row housing, some in apartment blocks; accounting for about one third of the local housing stock. In their location and quality, Dunavie rentals can be considered average: they do not differ significantly from the rest of the town's housing stock, including owner occupied dwellings.

The company currently has three new development projects under way; in line with the Netherlands' wider policy goals, the new builds will be state of the art, near-passive buildings. At the same time, Dunavie also aims to gradually renovate its existing housing stock, from their current energy category E or F to at least category B. In the course of the ongoing refurbishment efforts, Dunavie proposes a "menu" of refurbishment measures to tenants, accessible online, through which they have a say in the technical content of the renovation, but also to some extent to its level. (Notably though, energy category B as a minimum must be reached in all cases.) The corporation also cooperates with suppliers and organises project financing. In short, it is a top-down, company led efforts, in which end-users are involved, but are not the key actors. The benefits of the project – lower costs – will be shared between the housing corporation and its tenants.

### Actors and organisation

At the starting point of the renovations, the dwellings were in good conditions, with satisfactory comfort levels – albeit low energy category (E or F). They are scattered around the town in well-established mixed neighbourhoods. The Dutch government's goal, in line with Europe2020 ambitions, is to upgrade the full existing housing stock at least to energy category B, and to make all new developments energy neutral by this date; and Dunavie cooperative follows this set of objectives. The project is thus top-down to the extent that it is led by a housing cooperative, which follows national regulations and EU guidelines. The end-users do have a say in the details, but cannot fully opt out of the retrofitting activities and costs.

Technical support to all housing actors aiming at implementing energy efficient renovations is provided by the Dutch Foundation for Building Research (SBR). Dunavie's inclusive organisation involves the development of a "menu", to be presented by tenants, who – via internet – can provide feedback on the items on the menu they find the most urgent. It is based on practical measures, developed with SBR professionals and based on the quotes of potential suppliers, and which Dunavie has calculated would bring a reasonably swift return on investment. The menu provided to tenants presents not only the possible interventions, but also their descriptions with images and explanations to make them accessible to laypersons; their cost in terms of rent increase; and also how much they could reduce energy costs. In addition, two "model homes" are ready and can be freely visited by tenants.

### Implementation and financing

The tenants are members of the Dunavie cooperative, who pay a monthly rent. New build and retrofitting is fully covered by Dunavie, with no external funding from either commercial or public institutions. 30% of rent revenues are utilized for new developments; 20% is used for organisational costs, and 50% is used for maintenance. This latter is a significant portion, which goes well beyond day-to-day maintenance and also covers extensive energy efficient renovation of the existing housing stock. At the same time, rent level is increased (permanently) in buildings where energy efficient renovation was initiated. The company estimated that its retrofitting spending will be recovered over a period of 20 years from higher rent revenues.

It must be noted that this renovation is in a preparatory process at the moment. If at least 25% of tenants gives feedback on their preferred development directions, the crowdsourcing mechanism will be considered successful by Dunavie, and the renovations will be launched accordingly.

As of now, lower income tenants tend to oppose interventions they consider "luxurious": the ones which improve the comfort level of the apartments, but has no direct impact on energy cost reduction. So far the leading implementation measures are the ones directly associated with energy saving, including mounting solar panels, reinforcing insulation, and establishing individually regulated heating in the

apartments, and among rooms within each apartment. Furthermore, tenants have the possibility to opt out of interventions within their apartment, and only contribute the raised rent for the renovation of the common parts. Eventually, while energy category B must be reached in every building, the detailed technical content of the retrofitting will be slightly different in every case.

## **Constraints**

While the 8,000 dwellings are fully in Dunavie's ownership, they consist of mixed rentals, both at market price and social rentals. For the low income households living in social rentals could suffer from an increase in household costs as long as the rent increase incurs before energy cost reduction; hence their housing costs grow at the expense of other needs. The future pay-off of reduced energy cost is not only delayed, but also seems uncertain.