



## Reducing Energy Demand in Existing Buildings: Learning from Best-Practice Renovation Policies

The GBPN

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Analysis from the GBPN shows that, if the right policies are in place and the right commitment given, by 2050 it is possible that the built environment globally consumes 30% less energy than it does today, this figure takes into account exponential growth in population, floor space and comfort levels in developing regions (GBPN, 2013). How can this be done? Is it feasible? To help answer these questions, the GBPN undertook a major project to learn from current best practice policies in Europe and in the United States. The project examined what six EU countries and six American states have done to get on the right ‘deep’ renovation path. More importantly, the GBPN, with the support of a panel of international experts, developed the online “Policy Tool for Renovation” to objectively examine those efforts and to allow others to undertake such assessments themselves.

To support the feasibility of the ‘deep’ scenario, the GBPN recognises the need for the development of a range of ambitious, complementary and sustainable energy renovation policies. The aim of this project was to support the up-scaling of deep renovation across the residential building stock, by defining a state of the art policy package for renovation and analysing current best practices in consideration of this definition. State of the art was defined by identifying the key elements/criteria that are necessary to ensure that all buildings are renovated towards zero energy. The methodology used to develop the criteria included a detailed desktop study of current literature on renovation policy as well as a peer review process. Six key themes were identified as intrinsic to the development of a state-of-the-art renovation policy package: regulatory normative measures, building assessment, financial instruments,

economic instruments, capacity building and overall performance indicators.

The GBPN assessed all of the selected jurisdictions within the EU and U.S. against the same criteria. The chosen countries in Europe are Denmark, France, Germany, the Netherlands, Sweden and the United Kingdom. The chosen states in the US are California, Massachusetts, New Jersey, New York, Oregon and Vermont.

The results of this study and the comparison of the best practice policy packages are presented as an online renovation policy interactive comparison tool on the GBPN website.

The tool allows the user to develop their own analysis by selecting the criteria that are of interest to them. Policy packages can be compared using a single criterion or using multiple criteria. The tool allows the user to:

- Compare policy packages based on different criteria by selecting and deselecting criteria in the interactive tool area;
- Generate graphs based on time series data for energy performance in the respective countries/regions; and
- Access detailed information about each of the policy packages.

The tool’s purpose is to strengthen today’s renovation policy packages and encourage the adoption and upscale the implementation of state of the art policy packages around the world. This international comparison and policy tool confirms the need for such a policy package.