

WP 5 – DEMOBUILDING HOL CHURCH, NORWAY

Listed buildings pose an extraordinary challenge as regards energy efficient retrofitting. In this timber church from 1924, it has in spite of numerous antiquarian challenges, succeeded in reducing the energy need to approximately half.

The issue at this demo building has been to actually get the antiquarian authorities to allow retrofitting works in a situation where the attitude was that absolutely no works can take place. We did, however, succeed to convince the authorities to let us carry out the works, but after numerous and time consuming rounds of discussions. To allow the solar thermal part to proceed the Bishop finally had to intervene and overrule the authorities. Picture: Church + green solar thermal module



MAJOR WORKS CARRIED OUT :

- Insulation of floor from underside, from cellar side.
- Insulation of part of ceiling, from above.
- Adjusting windows and doors to ensure tight closing, hence reducing air leakages.
- Installing tight fit rubber gaskets in windows and doors.
- Installing "phone the church warm" system, a long distance mobile phone based control.
- Improving facility management routines to improve control of energy use.
- Solar thermal system, vertical and air based, at a distance to the church.

USER SATISFACTION :

Complaints of cold indoor climate as a result of poor insulation and cold draughts were numerous, prior to this project. User satisfaction monitoring before and after retrofit shows a considerable positive improvement among the church visitors.

FACTS :

Location :	Hagafoss by Geilo, mountains midway between Oslo and Bergen
Client :	Hol kirkelige fellesråd, Astri Tingstad
Year of construction :	1924
Year of renovation :	2006-2007
Heated volume :	6000 m ³
Heated floor area :	550 m ²
Energy need reduction :	Approximately 50 percent

PROJECT COORDINATOR :

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Germany: Stuttgart



Nursing Home
Filderhof

Great Britain: Plymouth



City College
Plymouth

Norway: Asker



Borgen
Community Centre

Norway: Hagafoss



Church
Hol Commune

Denmark: Copenhagen



Cultural Centre
Proevhallen

Greece: Athens



Evonymos
Ecological Library

Czech Republic: Brno



Social Centre
"Brewery"

Lithuania: Vilnius



Main Building
Vilnius
Gediminas University

