

## Measures for the reduction of fuel consumption and ${\rm CO}_2$ emissions in inland navigation

		Cooling and heating by means of excess engine heat
1.	Keywords	Cooling, heating, excess engine heat
2.	Short description	Use the heat of the exhaust and cooling water of the engines and generators to warm and cool the accommodation area.
3.	Objective & target	To reduce 135 tons of Carbon dioxide yearly.
4.	Key success factors	Cheaper than electric floor heating, proven technology in other industries.
5.	Innovative aspects	None, off the shelf components.
6.	Benefits for users	Less power consumption from generator, smaller generator.
7.	Geographic area	n.a.
8.	Status	In use for 40 years, but lost interest by popularity of electric heating and cooling. First vessel will be outfitted with it Q3 2011.
9.	Difficulties met	To guarantee round the clock warmth and cooling.
10.	Year(s)	2011
11.	Users, stakeholders	Shipyard Trico B.V., Climalogic, Deen Shipping B.V.& Electric Marine Support B.V.
12.	Contact person	Mr. Snijders (Trico) Mr. Bathoorn (Climalogic), Mr. Deen (Deen Shipping B.V.) Mr. Hamstra (EMS b.v.)
13.	Costs & financing	Equal to similar systems.
14.	Website / links	www.tricobv.nl
15.	Available data, publications	
16.	Added value: possibility for application elsewhere	
17.	Further information	
18.	Filled in by	Mr. Peter P.A. Snijders Msc. Beng.
19.	Date	8-3-2011