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8TH RENAISSANCE MEETING – 10/1/2009 – 10/2/2009



RENAISSANCE ZARAGOZA

WP1.2 : Eco Buildings: Definition and validation of design Standards and Bids.

José A. Turégano (GEE)
UofZ



WP1.2 (Progress)



RENAISSANCE
- ZARAGOZA -
SPAIN

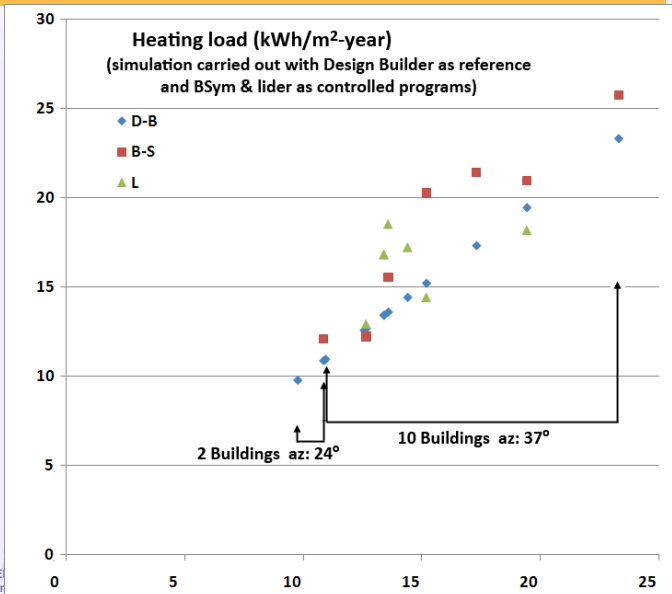
✚ Eco Buildings: Def. and valid. of design Stand.

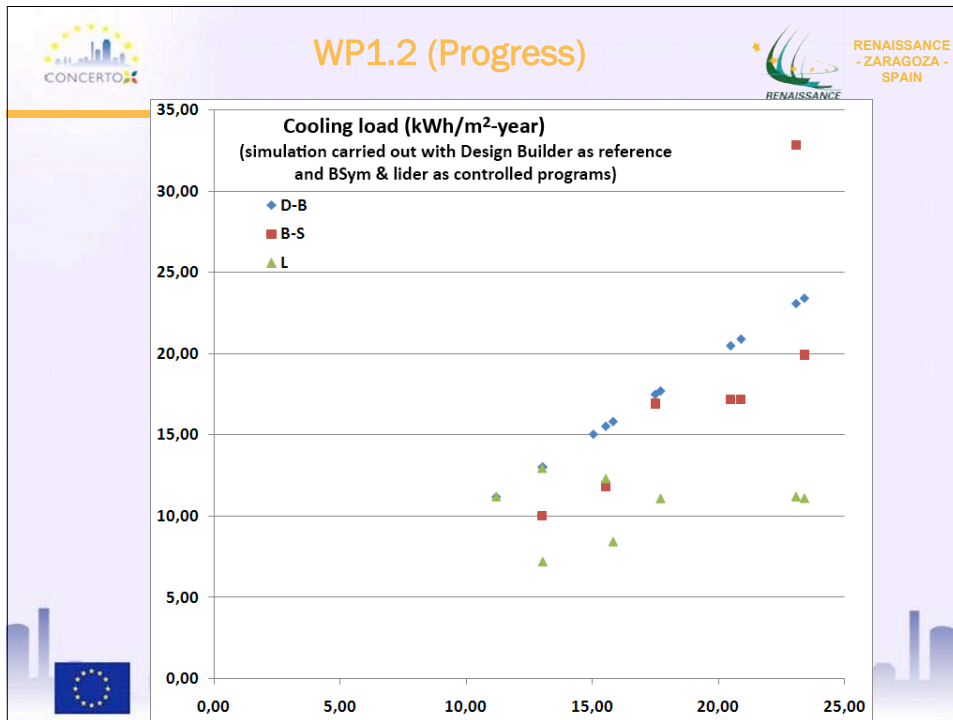
- ➔ UdZ has focused its efforts in this WP to validate a way of certification for buildings with important bioclimatic characteristics:
 - ▶ Developing a way of **comparing legal national simulation software** (Calener: with many difficulties in assessing bioclimatic buildings) **with equivalent options by comparison with international acceptance simulators.**
 - ▶ Promoting a specific standard for bioclimatic buildings to be used in parallel to the official national choice: **GEE/UdZ is participating in the analysis of the standard PHPP (Passive House Planning Package) by adapting it to Mediterranean climates**



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PAR CELA	Edifi cio	Orien tación	Design Builder			TSBI 3 / B Sym			LIDER	
			Demanda (kWh/m2.año)			Demanda (kWh/m2.año)			Demanda	
			Calefac ción (25°C)	Refriger (28°C)	Refriger (28°C)	Calefac ción (25°C)	Refriger (25°C)	Refriger (28°C)	Calefac ción	Refriger (25°C)
12	Norte	37°	12,65	15,54	8,34	12,22	11,86	5,90	12,90	12,30
	Sur	37°	10,20	15,53	6,83	13,78	14,37	7,23	11,20	15,00
	Oeste	127°	17,07	24,88	17,58	18,97	19,75	9,86	18,20	16,30
13	Norte	37°	17,30	17,50	10,15	21,40	16,94	8,47		
	Sur	37°	16,60	14,70	7,60	21,96	16,79	8,43		
14	Norte	37°	14,40	17,71	8,36				17,19	11,08
	Sur	37°	12,54	20,84	10,88				11,55	14,91
	Oeste	127°	11,00	23,28	11,99				27,68	15,56
17	Norte	37°	13,58	23,41	13,14	15,54	19,93	9,95	18,50	11,10
	Sur	37°	11,62	22,87	13,03	13,45	20,03	10,12	12,30	13,00
	Oeste	127°	11,79	23,52		18,15	23,13	11,68	12,90	15,90
18	Norte	37°	23,30	20,90	10,30	25,72	17,18	8,49		
	Sur	37°	30,30	8,60	4,53	24,11	18,86	9,50		
20	Norte	37°	10,85	20,49	10,29	12,10	17,21	8,54		
	Sur	37°	9,35	21,76	11,18	11,52	18,30	9,46		
21	-	127°	15,19	23,08	11,53	20,24	32,80		14,40	11,20
24	Norte	37°	13,40	11,20	3,54				16,80	11,20
	Sur	37°	11,21	12,25	4,12				12,70	11,90
	Oeste	127°	14,33	17,58	7,47				14,40	17,40
27	Norte	37°	19,43	13,02	6,62	20,93	10,06	5,84	18,16	12,94
	Sur	37°	19,52	14,12	7,12	21,02	10,96	6,02	15,69	13,93
	Oeste	127°	20,06	17,56	8,63	20,96	14,11	7,21	21,86	13,80
29	Norte	37°	10,93	15,05	5,78					
	Sur	37°	14,19	13,06	4,69					
	Oeste	127°	12,09	21,28	10,56					
32	Norte	----								
	Sur	24°								
33	Norte	----	12,56	15,83	6,57				15,97	8,43
	Sur	24°	10,04	14,33	6,67				18,22	9,88
41	Norte	24°	9,76	13,04	4,43				12,00	7,20
	Sur	24°	11,76	14,96	5,43				8,20	8,80





	Design Builder	B Sym	Lider
Heating Load average (kWh/m²-year)			
NORTE	15,61	17,99	16,71
SUR	15,17	17,64	12,69
OESTE	14,85	19,36	19,01
Cooling Load average (kWh/m²-year)			
NORTE	17,47	15,53	11,72
SUR	16,33	16,55	13,75
OESTE	21,36	19,00	15,79

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✚ Eco Buildings: Def. and valid. of design Stand.

➡ Future developments

▶ 12 months scenario:

- Perform the appropriate steps that the state government takes similar actions in its regulations
- creating a management entity between Renaissance partners (EVZ+UdZ) to collaborate with the regional government in the process of certification.

▶ 18 months scenario:

- Following the launch of a program of regular meetings of the Spanish CONCERTO projects: transfer of appropriate recommendations to regional and state authorities
- The partner of Renaissance, CENER, as part of the team selected by the Ministry of Housing to establish a certification methodology for built housing, will test the beta version of this certification in the homes rehabilitated in Picarral and in selected cases of Valdespartera



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