Annex 6 Potentials for tidal barrages, tidal flows and osmotic power

Global potential tidal barrage plants

Country	Location	Mean tidal range (m)	Basin area (km2)	Installed capacity (MW)	Approximate annual output (TWh/year)	Annual plant load factor (%)
Argentina	San José	5.8	778	5040	9.4	21
	Golfo Nuevo	3.7	2 376	6570	16.8	29
	Rio Deseado	3.6	73	180	0.45	28
	Santa Cruz	7.5	222	2420	6.1	29
	Rio Gallegos	7.5	177	1900	4.8	29
Australia	Secure Bay (Derby)	7.0	140	1480	2.9	22
	Walcott Inlet	7.0	260	2800	5.4	22
Canada	Cobequid	12.4	240	5338	14.0	30
	Cumberland	10.9	90	1400	3.4	28
	Shepody	10.0	115	1800	4.8	30
India	Gulf of Kutch	5.0	170	900	1.6	22
	Gulf of Khambat	7.0	1 970	7000	15.0	24
Korea (Rep.)	Garolim	4.7	100	400	0.836	24
	Cheonsu	4.5	-	-	1.2	-
Mexico	Rio Colorado	6.7	-	-	5.4	-
UK	Severn	7.0	520	8640	17.0	23
	Mersey	6.5	61	700	1.4	23
	Duddon	5.6	20	100	0.212	22
	Wyre	6.0	5.8	64	0.131	24
	Conwy	5.2	5.5	33	0.060	21
USA	Pasamaquoddy	5.5	-	-	-	-
	Knik Arm	7.5	-	2900	7.4	29
	Turnagain Arm	7.5	-	6500	16.6	29
Russian Fed.	Mezen	6.7	2 640	1000	45	34
	Tugur	6.8	1 080	7800	16.2	24
	Penzhinsk	11.4	20 530	87400	190	25
Total				**152365**	**235**	

From: Survey of Energy Resources, World Energy Council, 2001
www.worldenergy.org*/documents/ser_sept****2001****.pdf*

Potential osmotic power

Market	Capacity	Production	Investment
	GW	TWh/yr	B €
NL	0,4	2	2,0
EU	27	167	136
Global	212	1300	1060

From: Deltares, REDstack, Norwegian Center for Renewable Energy

Potential dynamic tidal power

Market	Capacity	Annual Output	Investment
	GW	TWh/year	B€
NL	4	9	1,5
EU	120	263	45
Global	650	1424	244

Figures from DTP consortium