

WaveForce Energy Limited

Incorporated in Dublin in 2011

WFE buoys Marks 1 to 3



WFE1 with diameter $d=0.25\text{m}$



WFE2 with diameter $d=0.5\text{m}$



WFE3 with diameter $d=1.0\text{m}$

Mark 4 buoy

A compact 2m diameter buoy.

Tunable to the wave climate at any specific site.

Survivable for all waves in the scatterplot of the site.

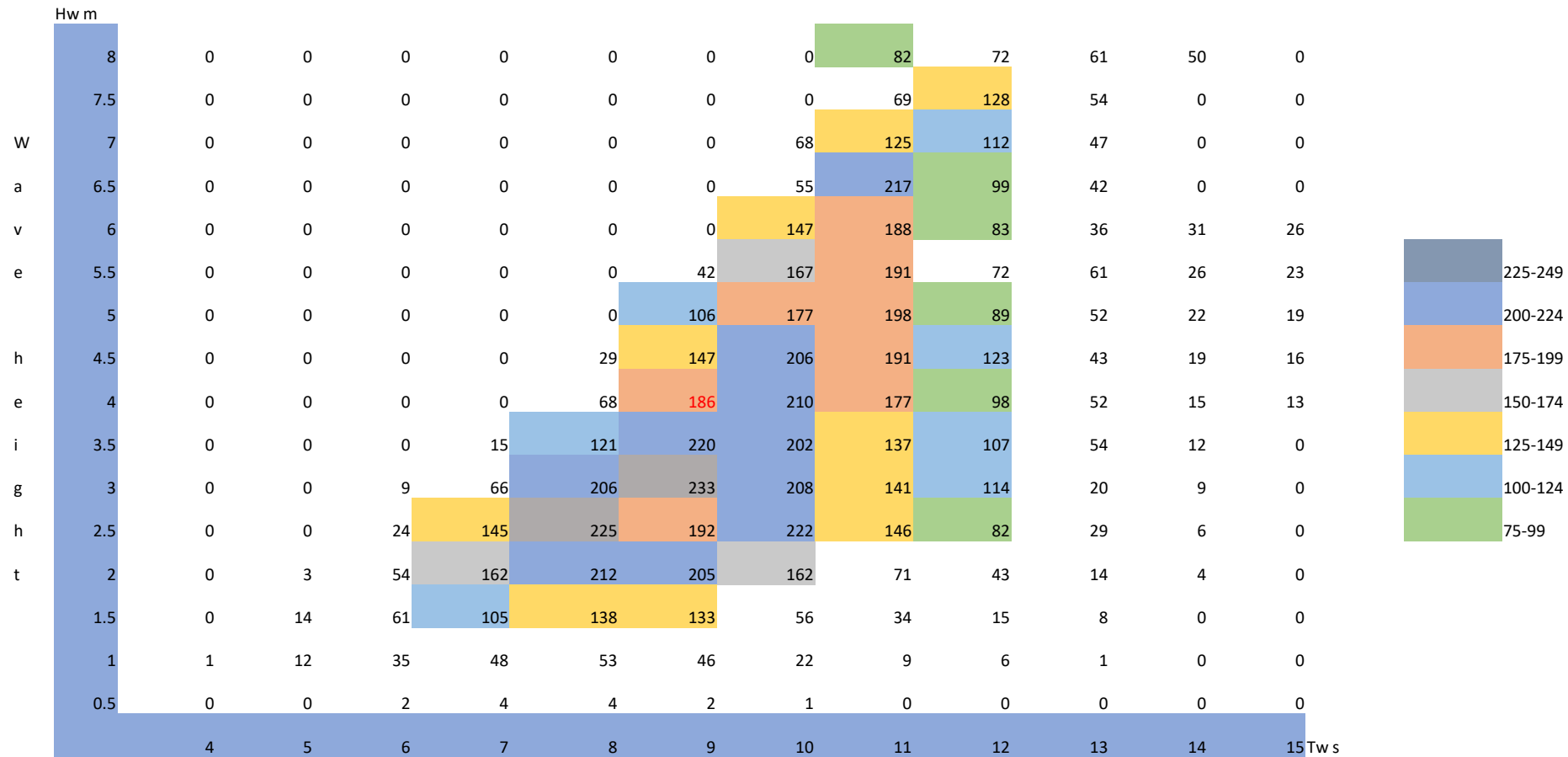
Optimizable average annual rms power at the site.

Designed with proprietary software resulting from mathematical analysis and tank testing over the past 8 years.

Scatterplot for Loop Head

	Hw m														
	8	0	0	0	0	0	0	0	0	0.001	0.001	0.001	0.001	0	
	7.5	0	0	0	0	0	0	0	0	0.001	0.002	0.001	0	0	
W	7	0	0	0	0	0	0	0.001	0.002	0.002	0.002	0.001	0	0	
a	6.5	0	0	0	0	0	0	0.001	0.004	0.002	0.002	0.001	0	0	
v	6	0	0	0	0	0	0	0.003	0.004	0.002	0.002	0.001	0.001	0.001	
e	5.5	0	0	0	0	0	0.001	0.004	0.005	0.002	0.002	0.002	0.001	0.001	
	5	0	0	0	0	0	0.003	0.005	0.006	0.003	0.002	0.002	0.001	0.001	
h	4.5	0	0	0	0	0.001	0.005	0.007	0.007	0.005	0.002	0.002	0.001	0.001	
e	4	0	0	0	0	0.003	0.008	0.009	0.008	0.005	0.003	0.003	0.001	0.001	
i	3.5	0	0	0	0.001	0.007	0.012	0.011	0.008	0.007	0.004	0.004	0.001	0	
g	3	0	0	0.001	0.006	0.016	0.017	0.015	0.011	0.01	0.002	0.002	0.001	0	
h	2.5	0	0	0.004	0.019	0.025	0.02	0.023	0.016	0.01	0.004	0.004	0.001	0	
t	2	0	0.001	0.014	0.033	0.037	0.033	0.026	0.012	0.008	0.003	0.003	0.001	0	
	1.5	0	0.01	0.028	0.038	0.043	0.038	0.016	0.01	0.005	0.003	0.003	0	0	
	1	0.004	0.019	0.036	0.039	0.037	0.03	0.014	0.006	0.004	0.001	0.001	0	0	
	0.5	0.001	0.003	0.009	0.012	0.011	0.006	0.002	0	0	0	0	0	0	
		4	5	6	7	8	9	10	11	12	13	14	15	Tw s	
							Wave	Period							

Mark4 Power Production Matrix for Loop Head



Average annual rms power at Loop Head

9.3kW

Applications

- Small arrays with battery storage:
 - Marine charging points at *open* ocean locations
 - Industry and defence
- Large arrays for power production:
 - 11x11 array of 121 buoys gives over 1 MW
 - Marine power stations at *open* ocean locations