AWWHybrid **Pilot**

€ 1	11,7	kr	**Euro**		**Norwegian kr**	
Investment			2,60E+08	€	3,04E+09	kr
			260,0	million	3,0	mrd.
Repayment period			30	year		
Interest rate			6	%		
Repayment each year			8,67E+06	€		
			8,7	million		
Interest each year			7,80E+06	€		
			7,8	million		
Capital cost			1,65E+07	€		
			16,5	million		
Aquaculture			3000	tonns	3000000	kg
Rental income each kg			0,5	€	5,85	kr
Rental aquaculture each year			1,50E+06	€	17,6	mil. kr
CAPEX			1,50E+07	€		
OPEX			0,01	€ pr. kWh	0,117	kr/kWh
Power			8,00E+07	W	80	MW
Hour in a year			8760	houres		
Capacity factor			50	%		
Energy in a year			3,50E+08	kWh	350	GWh
LCOE			0,05	€/kWh	0,62	kr/kWh

Calculation if this technology was used to build 500 MW at Utsira North, and the auction was won with € 0,11/kWh, and no el-certificates.

Auction(PPA)	0,11	€/kWh	1,29	kr/kWh
Subsidies of kr 35 billion garanty the price	2,99E+09	€	3,50E+10	kr
	2,99	billion	35,0	mrd.
Power	5,00E+08	W	500,0	MW
Numbers of AWWHybrid	6			
Energy each year	2,19E+09	kWh		
Profit each kWh	0,06	€/kWh		
Profit each year	125458333,3	€		
	125	million		
Investment	1,63E+09	€	1,90E+10	kr
	1,63	billion	19,0	mrd.
Profit in %	7,7	%		

Sweden use el-certificate

Calculation if el-certificates are used for AWWHybrd in Norway.

Total energyproduction each year	1,50E+14	Wh	1,50E+11	kWh
Certificat fee	0,01	€/kWh	0,12	kr/kWh
Income from certificates each year	1,50E+09	€		
El-certificate each kWh new energy	0,04	€/kWh	0,47	kr/kWh
Support time of el-certificates	15	years		

Total kWh to be supported	3,75E+10	kWh		
kWh to be supported each year	2,50E+09	kWh		
Capacity factor AWWHybrid	50	%		
Hours in a year	8760	h		
Power to be supported each year	570776	kW	0,571	GW
Power each AWWHybrid	80	MW	80000	kW
Number of AWWHybrid each year	7			
PPA	0,013	€/kWh	0,15	kr/kWh
30 GW finished	2078			

Menon Economics have analyzed the job marked if 30 GW makes a float wind industry in Norway, and predicts 30000 jobs.
NVE have analyzed the energy marked with 30 GW new renewable energy, and predicts an energy price at Nord Pool in Norway at € 0,04/kWh.

Income from energy in Norway by 2078, when 30 GW is finished?				
Energy price in Norway	0,05	€/kWh	0,585	kr/kWh
Energy price in EU(average Nord Pool)	0,1	€/kWh	1,17	kr/kWh
Energy in Norway(total)	2,80E+14	Wh	280	TWh
			2,80E+11	kWh
Energy used in Norway by 2078	2,00E+14	Wh	200	TWh
			2,00E+11	kWh
Everage export each year	8,00E+13	Wh	80	TWh
			8,00E+10	kWh
Income from electricity in Norway	1,00E+10	€	1,17E+11	kr
	10,0	billion	117,0	mrd.
Income to Norway from export	8,00E+09	€	9,36E+10	kr
	8,0	billion	93,6	mrd.
Total income each year in 2078	18,0	billion €	210,6	mrd. kr

How will 30000 jobs in an float wind industry effect the capital expenditure in Norway?				
Taxes and fees from wages in Norway	60	%		
Average wages in Norway	51282,05128	€	600000	kr
Capital expenditure building 7				
AWWHybrid	1,86E+09	€	2,17E+10	kr
each year.	1,9	billion	21,7	mrd.
Jobs in a float wind industry	3,00E+04	jobs		
Wages total in a float wind industry	1538461538,5	€		
	1,538461538	billion	18	mrd.
Income from taxes and fees	923076923,1	€		
	0,923076923	billion €	10,8	mrd. kr
Capital expenditure in float wind	9,32E+08	€		
each year.	0,9	billion €	10,9	mrd.