WF Cascinassa 5 x E126 - 4 MW - 20 MW - 99 m HH

Financial Summary

Last Change: 31/10/2018 iccio Cobucci Floriello Pre-Phase

all numbers in EUR

Project Specification				WTG Type	Enercon E126 - 4 MW	
Operator	FERA/LEVANTE Srl		CAPEX pro MW	Turbine Cap.	4,00	MW
Site	Cairo Montenotte (SV)	Italy	1.208.469	Hub Height	99	m
# of turbines	5,00	pieces		Rotor Ø	127	m
Project Size	20,00	MW		Rotor area	12.668	m^2
First year of production	2020			Full-load hours	3	h
				Specif. Gain	4	kWh/m^2
				Specif. Kosten	382	EUR/m^2

Investment Plan	quantity	price	total PLAN	total ACTUAL	future IC
1.) Permit / Pro. Dev.	5,00	180.000	900.000	-	900.000
2.) Grid Connection	5,00	370.000	1.850.000		1.850.000
3.) Land Purchase	5,00	53.000	265.000		265.000
4.) Planning / Constr. Mgmt	5,00	74.000	370.000		370.000
5.) Assessment / Survey	5,00	-	-		-
6.) Plants (Wind, PV, Hydro)	5,00	3.200.000	16.000.000		16.000.000
7.) Foundations	5,00	380.000	1.900.000		1.900.000
8.) Wiring	5,00	404.074	2.020.371		2.020.371
9.) Roads / Crane pads	5,00	-	-		-
10.) Clearing, Compensation	5,00	70.800	354.000		354.000
11.) One-off payments	5,00	-	-		-
12.) Large Components	5,00	-	-		-
13.) Financing	5,00	22.000	110.000		110.000
14.) Rights of use	5,00	-	-		-
15.) Demolition Costs	5,00	-	-		-
16.) Miscellaneous	5,00	-	-		-
17.) CAPEX Contingencies	5,00	80.000	400.000		400.000
18.) Pre-financing Costs (internal)	5,00	-	-		-
Investments total		**4.833.874**	**24.169.371**	**0**	**24.169.371**

Operating Costs	total	price/MW	ct/kWh
1.) Insurance	80.000	4.000	-149,28
2.) Power Consumption	16.000	800	-29,86
3.) Land Lease	0	0	0,00
4.) Contributions	32.155	1.608	-60,00
5.) Financial Management	32.155	1.608	-60,00
6.) Technical Management	30.000	1.500	-55,98
7.) Miscellaneous OPEX	45.000	2.250	-83,97
8.) Repairs	309.495	15.475	-577,50
9.) Maintenance	62.500	3.125	-116,62
10.) Other Taxes	20.000	1.000	-37,32
11.) OPEX Contingencies	50.000	2.500	-93,30
12.) Decommissioning	460.000	23.000	-858,33

Operating Costs in year 1	**1.137.305**	**56.865**	-2122,15
Operating Costs in year 8	**899.588**	**44.979**	-1678,58
Operating Costs in year 13	**945.476**	**47.274**	-1764,21

Executive Summary: SWOT Analysis	
Strenghts	**Weaknesses**
Opportunities	**Threats**

Revenue Forecast	kWh per WTG		kWh total
Gross Energy per anno	**11.633**		**58.165**
Wind farm efficiency ratio	97,5%		56.711
Deduction - technical losses	1,5%		-851
Deduction - other losses	2,0%		-1.134
Deduction - security	2,0%		-1.134
Net production per WTG	**10.718**	**in total**	**53.992**

Feed-in Tariff	EUR/kWh	from year	to year	total EUR
Tariff - realistic	60,00000	1	20	**3.215.529**
Tariff - pessimistic	60,00000	1	20	**3.215.529**
Tariff - optimistic	68,00000	1	20	**3.644.266**
annual increase Tariff 1	0,00%			
annual increase Tariff 2	0,00%			
annual increase Tariff 3	0,00%			

Funding	split	sum	interest rate	deprec. start	term [years]
Equity Ca	20,0%	4.833.874			
Credit 1	80,0%	19.335.497	2,5%	2	14
Credit 2		0	0,0%	0	0

Database Information			
used CAPEX elements	-	Free Market	60
used OPEX elements	-	Interest Rate	2,50%
unapproved items	*5*	Inflation Rate	1,00%

Scenario			
Production	P50	Free-market	Tariff - realistic
Contingencies		OPEX / CAPEX	

Cash Flows	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Annual Generation [MWh]		26.796	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592	53.592
resulting tariff		60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000	60,00000
Electricity Revenue		**1.607.764**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**	**3.215.529**
1.) Insurance		-80.000	-80.800	-81.608	-82.424	-83.248	-84.081	-84.922	-85.771	-86.629	-87.495	-88.370	-89.253	-90.146	-91.047	-91.958	-92.878	-93.806	-94.744	-95.692	-96.649
2.) Power Consumption		-16.000	-16.160	-16.322	-16.485	-16.650	-16.816	-16.984	-17.154	-17.326	-17.499	-17.674	-17.851	-18.029	-18.209	-18.392	-18.576	-18.761	-18.949	-19.138	-19.330
3.) Land Lease		-5.000	-5.050	-5.101	-5.152	-5.203	-5.255	-5.308	-5.361	-5.414	-5.468	-5.523	-5.578	-5.634	-5.690	-5.747	-5.805	-5.863	-5.922	-5.981	-6.041
4.) Contributions		-32.155	-32.477	-32.802	-33.130	-33.461	-33.796	-34.133	-34.475	-34.820	-35.168	-35.519	-35.875	-36.233	-36.596	-36.962	-37.331	-37.705	-38.082	-38.462	-38.847
5.) Financial Management		-32.155	-32.477	-32.802	-33.130	-33.461	-33.796	-34.133	-34.475	-34.820	-35.168	-35.519	-35.875	-36.233	-36.596	-36.962	-37.331	-37.705	-38.082	-38.462	-38.847
6.) Technical Management		-30.000	-30.300	-30.603	-30.909	-31.218	-31.530	-31.846	-32.164	-32.486	-32.811	-33.139	-33.470	-33.805	-34.143	-34.484	-34.829	-35.177	-35.529	-35.884	-36.243
7.) Miscellaneous OPEX		-45.000	-45.450	-45.905	-46.364	-46.827	-47.295	-47.768	-48.246	-48.729	-49.216	-49.708	-50.205	-50.707	-51.214	-51.726	-52.244	-52.766	-53.294	-53.827	-54.365
8.) Repairs		0	0	-240.545	-242.951	-245.380	-490.035	-494.936	-499.885	-504.884	-509.933	-515.032	-520.182	-525.384	-530.638	-535.944	-622.188	-628.410	-634.694	-641.041	-647.452
9.) Maintenance		-62.500	-63.125	-63.756	-64.394	-65.038	-65.688	-66.345	-67.008	-67.679	-68.355	-69.039	-69.729	-70.427	-71.131	-71.842	-72.561	-73.286	-74.019	-74.759	-75.507
10.) Other Taxes		-20.000	-20.200	-20.402	-20.606	-20.812	-21.020	-21.230	-21.443	-21.657	-21.874	-22.092	-22.313	-22.537	-22.762	-22.989	-23.219	-23.452	-23.686	-23.923	-24.162
11.) OPEX Contingencies		-50.000	-50.500	-51.005	-51.515	-52.030	-52.551	-53.076	-53.607	-54.143	-54.684	-55.231	-55.783	-56.341	-56.905	-57.474	-58.048	-58.629	-59.215	-59.807	-60.405
12.) Decommissioning		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-460.000
Operating Costs		**-372.811**	**-376.539**	**-620.849**	**-627.058**	**-633.328**	**-881.863**	**-890.681**	**-899.588**	**-908.584**	**-917.670**	**-926.847**	**-936.115**	**-945.476**	**-954.931**	**-964.480**	**-1.055.010**	**-1.065.560**	**-1.076.215**	**-1.086.978**	**-1.557.847**
Cash Flow	-24.169.371	1.234.954	2.838.990	2.594.680	2.588.471	2.582.200	2.333.666	2.324.847	2.315.940	2.306.945	2.297.859	2.288.682	2.279.414	2.270.052	2.260.598	2.251.048	2.160.519	2.149.969	2.139.313	2.128.551	1.657.681
discounted	*-24.169.371*	*1.193.875*	*2.585.005*	*2.190.909*	*2.042.679*	*1.904.423*	*1.608.525*	*1.497.614*	*1.394.277*	*1.298.001*	*1.208.307*	*1.124.749*	*1.046.911*	*974.403*	*906.864*	*843.956*	*757.024*	*704.044*	*654.724*	*608.813*	*443.116*
Repayment Credit 1		0	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	-1.381.107	0	0	0	0	0
Repayment Credit 2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Interest Credit 1		-483.387	-466.124	-431.596	-397.068	-362.541	-328.013	-293.485	-258.958	-224.430	-189.902	-155.375	-120.847	-86.319	-51.792	-17.264	0	0	0	0	0	0
Interest Credit 2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cash Flow from Financing		**-483.387**	**-1.847.230**	**-1.812.703**	**-1.778.175**	**-1.743.647**	**-1.709.120**	**-1.674.592**	**-1.640.064**	**-1.605.537**	**-1.571.009**	**-1.536.481**	**-1.501.954**	**-1.467.426**	**-1.432.898**	**-1.398.371**	**0**	**0**	**0**	**0**	**0**
Depreciation	20	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469	-1.208.469
Tax Result		-456.902	1.164.398	954.615	982.934	1.011.191	797.184	822.893	848.514	874.046	899.488	924.839	950.098	975.265	1.000.338	1.025.316	952.051	941.500	930.845	920.083	449.213
Tax	28,00%	127.933	-326.031	-267.292	-275.222	-283.134	-223.212	-230.410	-237.584	-244.733	-251.857	-258.955	-266.027	-273.074	-280.095	-287.088	-266.574	-263.620	-260.637	-257.623	-125.780
After-tax result		**-328.970**	**838.366**	**687.323**	**707.713**	**728.058**	**573.973**	**592.483**	**610.930**	**629.313**	**647.631**	**665.884**	**684.071**	**702.191**	**720.243**	**738.227**	**685.476**	**677.880**	**670.208**	**662.460**	**323.433**
CF EQ after tax	-4.833.874	879.499	665.728	514.684	535.074	555.419	401.334	419.845	438.292	456.675	474.993	493.246	511.432	529.552	547.605	565.589	1.893.945	1.886.349	1.878.677	1.870.928	1.531.902
discounted	*-4.833.874*	*850.244*	*631.469*	*434.592*	*422.251*	*409.602*	*274.628*	*270.455*	*263.867*	*256.948*	*249.771*	*242.401*	*234.899*	*227.306*	*219.679*	*212.049*	*660.616*	*617.717*	*574.958*	*535.127*	*409.494*
CF cumulated		879.499	1.545.227	2.059.912	2.594.986	3.150.405	3.551.740	3.971.585	4.409.877	4.866.551	5.341.544	5.834.790	6.346.222	6.875.775	7.423.379	7.988.968	9.882.913	11.769.262	13.647.939	15.518.867	17.050.769
DSCR		**2,55**	**1,54**	**1,43**	**1,46**	**1,48**	**1,37**	**1,39**	**1,41**	**1,44**	**1,46**	**1,49**	**1,52**	**1,55**	**1,58**	**1,61**	##########				

