

Table 2 16 turbine scenario participant results

Rank	Algorithm	sub#	Grad.	AEP	Increase
1	SNOPT+WEC	4	G	418924.4064	14.17 %
2	fmincon	5	G	414141.2938	12.86 %
3	SNOPT	8	G	412251.1945	12.35 %
4	SNOPT	1	G	411182.2200	12.06 %
5	Preconditioned Sequential Quadratic Programming	2	G	409689.4417	11.65 %
6	Multistart Interior-Point	10	G	408360.7813	11.29 %
7	Full Pseudo-Gradient Approach	3	GF	402318.7567	9.64 %
8	Basic Genetic Algorithm	7	GF	392587.8580	6.99 %
9	Simple Particle Swarm Optimization	6	GF	388758.3573	5.95 %
10	Simple Pseudo-Gradient Approach	9	GF	388342.7004	5.83 %
11	(Example Layout)	-	-	366941.5712	-

Table 3 36 turbine scenario participant results

Rank	Algorithm	sub#	Grad.	AEP	Increase
1	SNOPT+WEC	4	G	863676.2993	17.05 %
2	Multistart Interior-Point	10	G	851631.9310	15.42 %
3	Preconditioned Sequential Quadratic Programming	2	G	849369.7863	15.11 %
4	SNOPT	8	G	846357.8142	14.70 %
5	SNOPT	1	G	844281.1609	14.42 %
6	Full Pseudo-Gradient Approach	3	GF	828745.5992	12.31 %
7	fmincon	5	G	820394.2402	11.18 %
8	Simple Pseudo-Gradient Approach	9	GF	813544.2105	10.25 %
9	Basic Genetic Algorithm	7	GF	777475.7827	5.37 %
11	(Example Layout)	-	-	737883.0985	-

Table 4 64 turbine scenario participant results

Rank	Algorithm	sub#	Grad.	AEP	Increase
1	SNOPT+WEC	4	G	1513311.1936	16.86 %
2	Preconditioned Sequential Quadratic Programming	2	G	1506388.4151	16.36 %
3	Multistart Interior-Point	10	G	1480850.9759	14.35 %
4	SNOPT	1	G	1476689.6627	14.03 %
5	Full Pseudo-Gradient Approach	3	GF	1455075.6084	12.36 %
6	SNOPT	8	G	1445967.3772	11.66 %
7	Simple Pseudo-Gradient Approach	9	GF	1422268.7144	9.82 %
8	Simple Particle Swarm Optimization	6	GF	1364943.0077	5.40 %
9	fmincon	5	G	1336164.5498	3.18 %
10	Basic Genetic Algorithm	7	GF	1332883.4328	2.93 %
11	(Example Layout)	-	-	1294974.2977	-