

Appendix 2: Fossil Fuel Indexes' 200 Carbon Underground (2017)

Table 2.1: 100 Oil & Gas Companies, ranked by reserves

Source: FFI's Carbon Underground 2017™

Rank	Oil and Gas Companies	Oil Gt CO ₂	Gas Gt CO ₂	Total O&G Gt CO ₂
1	Gazprom	7,046	36,844	43,89
2	Rosneft	11,536	5,939	17,475
3	PetroChina	3,363	4,309	7,672
4	ExxonMobil	3,956	3,079	7,035
5	BP	4,309	2,364	6,673
6	Lukoil	5,285	1,28	6,565
7	Royal Dutch Shell	2,112	2,209	4,321
8	Chevron	2,473	1,567	4,04
9	Petrobras	3,516	0,508	4,024
10	Novatek	0,55	3,377	3,927
11	Total	2,076	1,798	3,874
12	Tatneft	2,618	0,063	2,681
13	ENI	1,439	1,217	2,656
14	ONGC	1,518	0,796	2,314
15	ConocoPhillips	1,236	0,83	2,066
16	Statoil	1,018	0,798	1,816
17	CNOOC	0,983	0,439	1,422
18	Inpex	0,908	0,328	1,236
19	Canadian Natural Resources	0,873	0,322	1,195
20	Sinopec	0,657	0,391	1,048
21	Bashneft	1,007	0	1,007
22	Occidental	0,796	0,206	1,002
23	EOG Resources	0,621	0,181	0,802
24	Repsol	0,247	0,55	0,797
25	Antero Resources	0,281	0,513	0,794
26	Suncor Energy	0,732	0,002	0,734
27	EQT	0,055	0,672	0,727
28	Imperial Oil	0,617	0,02	0,637
29	Range Resources	0,203	0,429	0,632
30	Marathon Oil	0,495	0,133	0,628
31	Ecopetrol	0,46	0,167	0,627
32	Anadarko Petroleum	0,374	0,241	0,615
33	Devon Energy	0,304	0,307	0,611
34	BASF	0,205	0,384	0,589
35	Chesapeake Energy	0,225	0,354	0,579
36	Noble Energy	0,207	0,289	0,496
37	Apache	0,33	0,156	0,486
38	Continental Resources	0,272	0,207	0,479
39	Cabot Oil&Gas	0,02	0,451	0,471
40	BHP Billiton	0,195	0,262	0,457
41	Hess	0,327	0,092	0,419
42	YPF	0,235	0,159	0,394
43	OMV	0,266	0,123	0,389
44	Cenovus Energy	0,351	0,033	0,384
45	Woodside Petroleum	0,042	0,318	0,36
46	CONSOL Energy	0,019	0,318	0,337
47	KazMunaiGas EP	0,29	0,026	0,316

48	Southwestern Energy	0,019	0,265	0,284
49	Encana	0,091	0,192	0,283
50	Concho Resources	0,181	0,095	0,276
51	Husky Energy	0,168	0,107	0,275
52	Seven Generations Energy	0,158	0,113	0,271
53	Pioneer Natural Resources	0,199	0,069	0,268
54	Tourmaline Oil	0,044	0,222	0,266
55	SK Innovation	0,263	0	0,263
56	QEP Resources	0,119	0,139	0,258
57	PTT	0,072	0,184	0,256
58	Murphy Oil	0,153	0,102	0,255
59	Whiting Petroleum	0,198	0,039	0,237
60	Sasol	0,157	0,073	0,23
61	Aker BP	0,224	0	0,224
62	California Resources	0,186	0,034	0,22
63	Crescent Point Energy	0,202	0,018	0,22
64	Rice Energy	0	0,218	0,218
65	Linn Energy	0,071	0,125	0,196
66	Newfield Exploration	0,108	0,074	0,182
67	MEG Energy	0,178	0	0,178
68	Lundin	0,167	0,006	0,173
69	Mitsui	0,063	0,107	0,17
70	Birchcliff Energy	0,027	0,137	0,164
71	Cimarex Energy	0,084	0,08	0,164
72	EP Energy	0,12	0,04	0,16
73	Maersk	0,153	0	0,153
74	Santos	0,016	0,133	0,149
75	Oil India	0,096	0,049	0,145
76	Ultra Petroleum	0,013	0,127	0,14
77	Oil Search	0,022	0,117	0,139
78	SM Energy	0,075	0,061	0,136
79	ENGIE	0,033	0,096	0,129
80	Painted Pony Petroleum	0,014	0,115	0,129
81	WPX Energy	0,088	0,04	0,128
82	ARC Resources	0,045	0,083	0,128
83	JX Holdings	0,059	0,068	0,127
84	Gulfport Energy	0,008	0,118	0,126
85	Oasis Petroleum	0,1	0,022	0,122
86	Polish Oil & Gas	0,031	0,091	0,122
87	PDC Energy	0,075	0,045	0,12
88	Energen	0,1	0,019	0,119
89	Peyto E&D	0,009	0,11	0,119
90	MOL	0,072	0,047	0,119
91	Oando	0,051	0,064	0,115
92	Galp Energia	0,099	0,013	0,112
93	Denbury Resources	0,105	0,002	0,107
94	National Fuel Gas	0,012	0,091	0,103
95	Centrica	0,029	0,069	0,098
96	TAQA	0,051	0,046	0,097
97	Premier Oil	0,077	0,02	0,097
98	Great Eastern	0	0,094	0,094
99	Japex	0,042	0,051	0,093
100	DNO International	0,093	0	0,093

Table 2.2: 100 Coal Companies, ranked by Reserves

Source: FFI's Carbon Underground 2017TM

Rank	Coal Companies	Coal Gt CO ₂
1	Coal India	32,039
2	Shaanxi Coal Industry	28,885
3	Adani Enterprises	25,311
4	China Shenhua Energy	25,305
5	Inner Mongolia Yitai Coal	14,849
6	Yanzhou Coal Mining	10,633
7	China Coal Energy	9,492
8	Public Power	9,339
9	Exxaro Resources	8,928
10	Glencore	8,369
11	Peabody Energy	7,998
12	Bukit Asam	7,844
13	BHP Billiton	7,31
14	Foresight Energy	6,759
15	Lu'an Environmental Energy	6,443
16	BUMI Resources	5,499
17	Shanxi Xishan Coal and Electricity	5,416
18	Mechel	5,308
19	Mitsubishi	5,128
20	China Coal Xinji Energy	4,873
21	Raspadskaya OAO	3,968
22	Alliance Resource Partners	3,893
23	Arch Coal	3,878
24	Anglo American	3,592
25	DaTong Coal Industry	3,508
26	China Cinda Asset Management	3,316
27	EVRAZ	3,189
28	Vale	3,179
29	Rio Tinto	2,71
30	Severstal	2,661
31	Tata Steel	2,643
32	Westmoreland Coal	2,529
33	Jastrzębska Spółka Węglowa	2,516
34	Resource Generation	2,441
35	Teck Resources	2,376
36	United RUSAL	2,233
37	Adaro Energy	2,2
38	AGL Energy	2,144
39	Shanghai Datun Energy Resources	2,032
40	Yang Quan Coal	2,023
41	Shanxi Lanhua Sci-Tech	1,959
42	Whitehaven Coal	1,946
43	Kuzbasskaya Toplivnaya	1,89
44	Cloud Peak Energy	1,886
45	CONSOL Energy	1,807
46	South32	1,712
47	New Hope	1,635
48	Yancoal Australia	1,622
49	NACCO Industries	1,459

50	Huolinhe Coal	1,387
51	ITOCHU	1,361
52	Beijing Haohua Energy Resource	1,317
53	NLC India	1,296
54	Novolipetsk Steel	1,236
55	Indika Inti Corpindo	1,182
56	Datang International Power Generation	1,147
57	Coal of Africa	1,137
58	Golden Energy Mines	1,112
59	Jindal Steel & Power	1,033
60	Mitsui	0,998
61	Banpu	0,95
62	Berau Coal Energy	0,942
63	Wesfarmers	0,832
64	Up Energy Development	0,826
65	Kangaroo Resources	0,794
66	Shanxi Meijin Energy	0,784
67	Mongolian Mining	0,767
68	Jizhong Energy	0,742
69	Allete	0,723
70	Aspire Mining	0,67
71	ArcelorMittal	0,64
72	Hallador Energy	0,599
73	Vedanta	0,599
74	LG International	0,595
75	Rhino Resource Partners	0,56
76	Ramaco Resources	0,555
77	Lubelski Węgiel Bogdanka	0,554
78	CLP Holdings	0,552
79	Bayan Resources	0,529
80	Steel Authority of India	0,515
81	Vimetco	0,512
82	Indo Tambangraya Megah (Banpu)	0,508
83	Black Hills	0,495
84	Monnet Ispat & Energy	0,492
85	Kinetic Mines and Energy	0,463
86	Feishang Anthracite Resources	0,463
87	FirstEnergy	0,463
88	Sasol	0,456
89	Prairie Mining	0,428
90	Tata Power	0,424
91	American Energy	0,415
92	Coal Energy	0,414
93	AgriTrade Resources	0,414
94	Beijing Jingneng Thermal Power	0,411
95	African Rainbow Minerals	0,4
96	African Rainbow Minerals	0,397
97	Golden Eagle Energy	0,386
98	JSW Energy	0,369
99	Wollongong Coal	0,353
100	TBEA Co	0,329