

Oil and natural gas extraction data

Richard Heede
Climate Mitigation Services
File started: 11 January 2005
Last modified: January 2020

Copyright Climate Accountability Institute

Equinor, Norway

www.statoil.com Oslo

yellow column indicates original reported units

67% State-owned

Production / Extraction data

Year

Crude Oil & NGL

Natural Gas

Net production	Net production	Net production	Net production	Net production	Net production
Million bbl /yr	Million bbl /yr	Million bbl /yr	Bcf/yr	Bcf/yr	Billion cf/yr

Operations in 30 countries



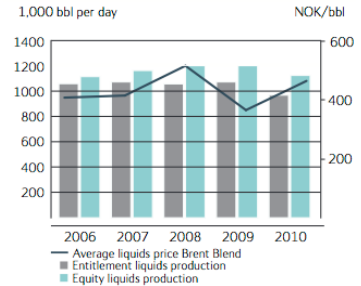
Statoil's Gullfaks platform



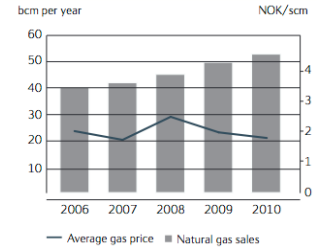
Year	%	Norsk Hydro		Statoil	
		OGJ100	Hydro plus Statoil	OGJ100	Hydro plus Statoil
1970					
1971	8.0%	0	0	0	0%
1972	8.0%	1	1	1	0%
1973	8.0%	1	1	1	0%
1974	8.0%	1	1	1	0%
1975	8.0%	6	6	6	0%
1976	8.0%	8	8	8	0%
1977	8.0%	8	8	8	0%
1978	7.5%	10	10	10	0%
1979	7.0%	10	6	16	4%
1980	6.5%	13	15	28	8%
1981	6.0%	11	22	34	12%
1982	5.5%	11	31	42	16%
1983	5.0%	12	48	60	20%
1984	4.5%	12	95	108	24%
1985	4.0%	12	105	117	24%
1986	3.5%	12	115	126	24%
1987	3.0%	9	125	133	24%
1988		14	128	142	
1989		29	126	155	
1990		34	124	158	
1991		42	157	200	
1992		48	176	224	
1993		55	177	232	
1994		70	192	262	
1995		76	182	258	
1996		81	169	250	
1997		79	150	229	
1998		78	168	246	
1999		97	262	359	
2000		119	275	394	
2001		120	268	388	
2002		135	271	406	
2003		143	271	414	
2004		153	265	418	
2005		146	256	402	
2006		141	244	385	
2007		391	391	391	
2008		386	386	386	
2009		381	381	381	
2010		352	352	352	
2011		343	343	343	
2012	Oil, cond., NGL	353	353	353	
2013		345	345	345	
2014		357	357	357	
2015		378	378	378	
2016		378	378	378	
2017		371	371	371	
2018		365	365	365	

Year	% of NCS prod'n		Hydro plus Statoil
	1977 to 1986	1979 to 1986	
1970			
1971	15	15	15
1972	75	75	75
1973	102	102	102
1974	115	115	115
1975	106	106	106
1976	93	93	93
1977	83	83	83
1978	83	83	83
1979	74	74	74
1980	64	64	64
1981	137	137	137
1982	116	116	116
1983	114	114	114
1984	82	82	82
1985	71	71	71
1986	69	69	69
1987	69	69	69
1988	85	85	85
1989	77	77	77
1990	104	104	104
1991	111	111	111
1992	116	116	116
1993	150	150	150
1994	182	182	182
1995	191	191	191
1996	227	227	227
1997	275	275	275
1998	312	312	312
1999	337	337	337
2000	380	380	380
2001	1,352	1,352	1,352
2002	1,469	1,469	1,469
2003	1,519	1,519	1,519
2004	1,509	1,509	1,509
2005	1,434	1,434	1,434
2006	1,748	1,748	1,748
2007	1,571	1,571	1,571
2008	1,565	1,565	1,565
2009	1,600	1,600	1,600
2010	1,661	1,661	1,661
2011	1,873	1,873	1,873
2012	1,953	1,953	1,953

Oil production/price

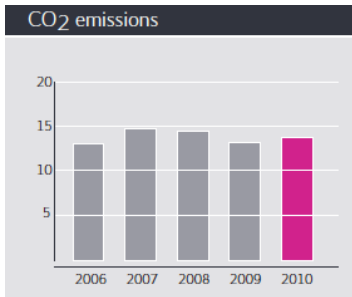


Gas production/price

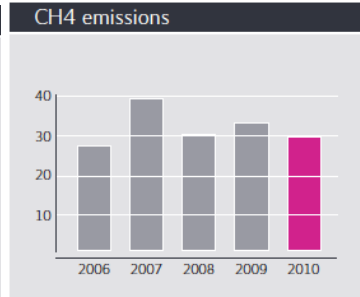


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Total	4,344	6,975	10,622	3,205	28,469	32,485
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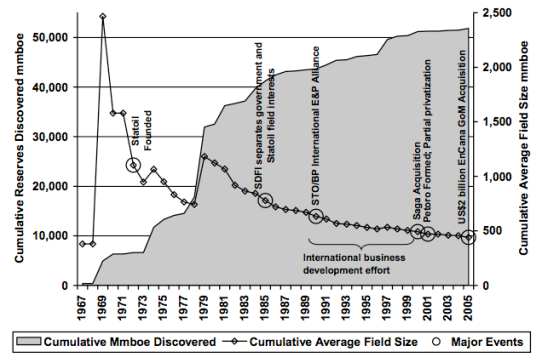


Statoil Factbook 2010, page 51.



Statoil Factbook 2010, page 52.

CUMULATIVE RESERVE DISCOVERY HISTORY IN NORWAY



Gordon & Stenvoll (2007) Statoil: A Study in Political Entrepreneurship, Fig. 1.

Download data from www.statoil.com

Entitlement production	For the year ended 31 December					
	2013	2012	2011	2010	2009	2008
Norway						
Oil and NGL (mmbbls)	216	231	252	256	279	302
Natural gas (bcf)	1,264	1,483	1,287	1,370	1,367	1,348
Natural gas (bcm)				39	39	38
Combined oil and gas (mmb)	441	495	481	500	523	542
Eurasia excluding Norway						
Oil and NGL (mmbbls)	15	17	15	18	19	n/a
Natural gas (bcf)	72	62	48	51	49	n/a
Natural gas (bcm)				1	1	n/a
Combined oil and gas (mmb)	28	28	23	27	28	n/a
Africa						
Oil and NGL (mmbbls)	59	56	46	53	63	n/a
Natural gas (bcf)	40	41	40	41	54	n/a
Natural gas (bcm)				1	2	n/a
Combined oil and gas (mmb)	66	63	53	60	73	n/a
America						
Oil and NGL (mmbbls)	54	50	31	26	20	n/a
Natural gas (bcf)	196	161	59	47	48	n/a
Natural gas (bcm)				1	1	n/a
Combined oil and gas (mmb)	89	79	41	34	29	n/a
Outside Norway						
Oil and NGL (mmbbls)	345	353	343	n/a	n/a	85
Natural gas (bcf)	1,571	1,748	1,434	n/a	n/a	121
Natural gas (bcm)				n/a	n/a	3
Combined oil and gas (mmb)				n/a	n/a	106
Total						
Crude oil (mmbbls) ¹	345.2	353.3	342.9	352.4	381.0	386.0
Natural gas (bcf)	1,571.0	1,748.3	1,433.7	1,509.1	1,519.0	1,469.0
Natural gas (bcm)				43	43	42
Combined oil and gas (mmb)	625	665	598	621	652	648

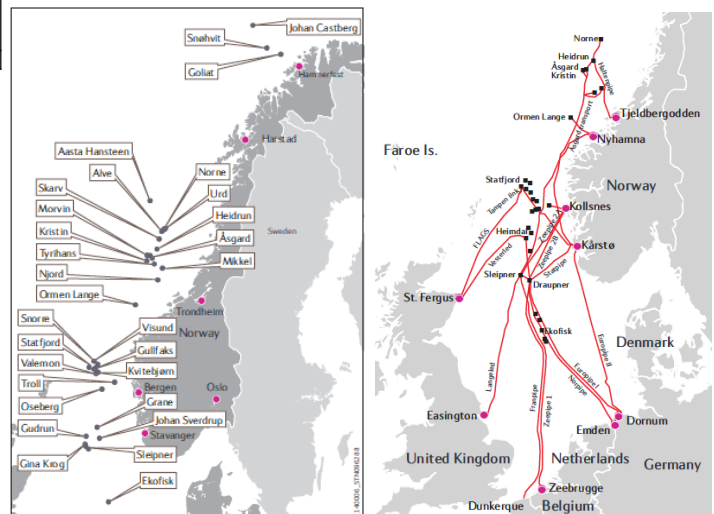
¹ Crude oil includes natural gas liquids (NGL), condensate and bitumen. NGL includes both LPG and naphta.

Sales Volumes	Year ended					
	2013	2012	2011	2010	2009	2008
Statoil: (1)						
Crude oil (mmbbls) (2)	350	351	332	354	381	372
Natural gas (bcf)	1,622	1,721	1,377	1,472	1,462	1,387
Natural gas (bcm) (3)				41.7	41.4	39.3
(mmb)	639	658	577	616	642	619
Third party volumes: (4)						
Crude oil (mmbbls) (2)	303	399	333	310	257	242
Natural gas (bcf)	431	210	244	247	192	127
Natural gas (bcm) (3)				7.0	5.4	3.6
(mmb)	380	436	376	354	291	265
SDFI assets owned by the Norwegian State:						
Crude oil (mmbbls) (2)	155	156	162	172	200	213
Natural gas (bcf)	1,366	1,591	1,476	1,610	1,431	1,440
Natural gas (bcm) (3)				45.6	40.5	40.8
(mmb)	398	439	425	458	455	470
Total						
Crude oil (mmbbls) (2)	809	905	827	835	838	827
Natural gas (bcf)	3,419	3,523	3,096	3,329	3,085	2,955
Natural gas (bcm) (3)				94.3	87.4	83.7
(mmb)	1,418	1,533	1,379	1,428	1,388	1,353

included in the table above
crude oil include NGL and
value (GCV) of 40
crude oil include both

Alternate production estimate for 2008				
	Thous bbl /d	Million bbl /y	Million cf/d	Bcf/yr
2008	1,199	438	4,647	1,696

Source: Huys, & Thurber, 2012, Introduction, Table 1.1, p 24, in Victor et al. 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com



Statoil Form 20-F 2013, p. 14

Norway's gas transport system, Statoil Factbook 2010, page 41.

Background data on oil and gas production, Norwegian Continental Shelf 1971-2010

Figures below from : Norwegian Petroleum Directorate (2012) Facts 2012, www.npd.no

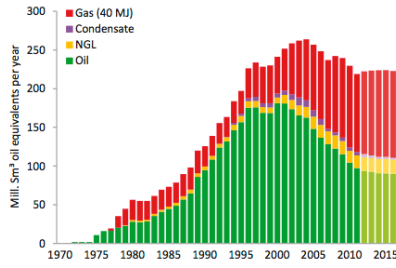


Figure 3.7 Historical production of oil and gas and production forecast for the coming years

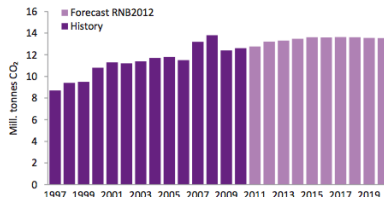


Figure 9.3 Emissions of CO₂ from the Norwegian petroleum sector

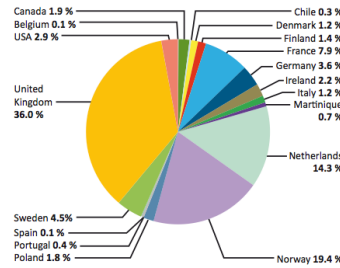


Figure 6.5 Deliveries of Norwegian crude oil distributed by receiving country, 2011

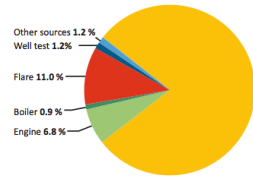
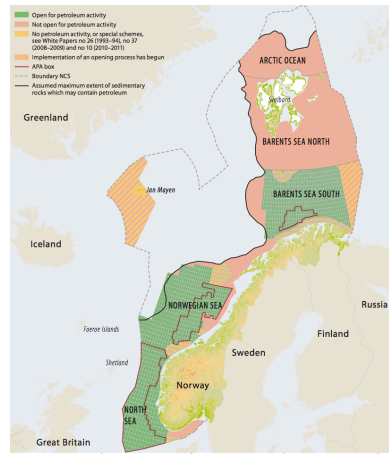


Figure 9.2 CO₂ emissions from petroleum activities 2010, by source (Source: Norwegian Petroleum Directorate)



Norwegian Petroleum Directorate (2012) Facts 2012, www.npd.no

Note on flaring

1 cubic meter = 35.314667 cf
1 m³ (oil) = 6.289 bbl

Percent by Norsk Hydro and Statoil

Oil equiv. Million BOE	Oil + cond. + NGL Million bbl	Gas Bcf
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Oil + cond. + NGL Statoil+Hydro %	Gas Statoil+Hydro %
"F" / "AK"	"J" / "AL"

Norwegian Petroleum Directorate					
Total Oil & Gas production, Norwegian Continental Shelf					
factpages.npd.no/factpages/ Accessed April 2013					
Year	Oil million m ³	Gas Bcm	NGL million m ³	Condensate million m ³	Oil equiv. million m ³
1971	0.36	-	-	-	0.36
1972	1.93	-	-	-	1.93
1973	1.87	-	-	-	1.87
1974	2.01	-	-	-	2.01
1975	11.00	-	-	-	11.00
1976	16.23	-	-	-	16.23
1977	16.64	2.65	-	0.00	19.30
1978	20.64	14.20	-	0.02	34.87
1979	22.48	20.67	1.13	0.04	44.32
1980	28.22	25.09	2.44	0.05	55.80
1981	27.48	24.95	2.17	0.05	54.65
1982	28.53	23.96	2.29	0.04	54.82
1983	35.65	23.61	2.68	0.04	61.98
1984	41.09	25.96	2.64	0.06	69.76
1985	44.76	26.19	2.97	0.08	73.99
1986	48.77	26.09	3.85	0.06	78.77
1987	56.96	28.15	4.12	0.05	89.28
1988	64.72	28.33	4.85	0.05	97.95
1989	85.98	28.74	4.90	0.05	119.67
1990	94.54	25.48	5.01	0.05	125.08
1991	108.51	25.03	4.90	0.06	138.49
1992	124.00	25.83	4.96	0.05	154.85
1993	131.84	24.80	5.52	0.47	162.64
1994	146.28	26.84	7.12	2.40	182.65
1995	156.78	27.81	7.94	3.18	195.71
1996	175.50	37.41	8.23	3.78	224.92
1997	175.91	42.95	8.07	5.38	232.31
1998	168.74	44.19	7.39	5.05	225.37
1999	168.69	48.48	6.99	5.51	229.67
2000	181.18	49.79	7.23	5.41	243.61
2001	180.88	54.04	10.92	5.67	251.51
2002	173.65	65.59	11.80	7.32	258.36
2003	165.48	73.71	12.88	10.32	262.38
2004	162.78	78.59	13.58	8.67	263.63
2005	148.14	85.09	15.73	7.95	256.91
2006	136.58	87.94	16.67	7.63	248.82
2007	128.28	89.70	16.61	3.13	237.71
2008	122.66	99.33	16.93	3.91	242.84
2009	115.45	103.75	16.93	4.42	240.55
2010	104.35	107.25	15.48	4.12	231.20
2011	97.50	101.37	16.29	4.55	219.71
2012	89.20	114.57	17.71	4.55	226.03
1971-2012	3,812	1,738	289	104	5,943

2	2	-
12	12	-
12	12	-
13	13	-
69	69	-
102	102	-
121	105	94
219	130	501
279	149	730
351	193	886
344	187	881
345	194	846
390	241	834
439	275	917
465	301	925
495	331	921
561	384	994
616	438	1,000
753	572	1,015
787	626	900
871	714	884
974	811	912
1,023	867	876
1,149	980	948
1,231	1,056	982
1,415	1,179	1,321
1,461	1,191	1,517
1,417	1,139	1,561
1,444	1,140	1,712
1,532	1,219	1,758
1,582	1,242	1,908
1,625	1,212	2,316
1,650	1,187	2,603
1,658	1,164	2,776
1,616	1,081	3,005
1,565	1,012	3,106
1,495	931	3,168
1,527	902	3,508
1,513	860	3,664
1,454	780	3,788
1,382	744	3,580
1,422	701	4,046
37,379	26,447	61,382

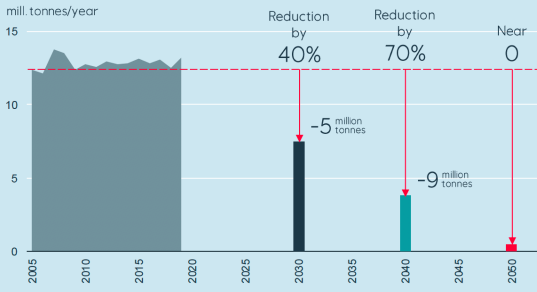
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27.6%
25.8%
26.6%
42.8%
60.6%
60.5%
39.6%
38.2%
38.2%
37.5%
39.4%
42.9%
42.7%
41.9%
41.5%
39.8%



<https://www.equinor.com/en/about-us/our-history/about-our-name-change.html>

Annual greenhouse gas emissions

Equinor operated onshore facilities and offshore fields



Continued significant value creation for the company and society

- Potential to generate around NOK 3.000 billion in income for the Norwegian State towards 2030¹

Large scale industrial measures

- Investments NOK ~50 billion²
- Operational measures and energy efficiency
- Electrification
- Consolidation of infrastructure
- Zero-emission design for new fields
- New value chains

New climate ambition 7Jan2020: near zero operational emissions by 2050.

Entitlement production

	Consolidated companies					Equity accounted					Total
	Norway	Eurasia excluding Norway	Africa	US	Americas excluding US	Subtotal	Norway	Eurasia excluding Norway	Americas excluding US	Subtotal	
Oil and Condensate (mmbbls)											
2016	169	12	72	34	26	313	2	0	4	6	320
2017	165	10	68	38	21	302	6	0	2	8	310
2018	155	8	57	48	29	298	5	-	-	5	303
NGL (mmbbls)											
2016	46	-	2	9	-	58	0	-	-	0	58
2017	48	-	4	9	0	61	-	-	-	-	61
2018	46	-	4	12	-	62	0	-	-	0	62
Natural gas (bcf)											
2016	1,338	34	60	226	0	1,659	1	0	-	2	1,661
2017	1,515	41	72	240	0	1,868	4	0	-	5	1,873
2018	1,502	39	84	318	5	1,949	4	-	-	4	1,953
Combined oil, condensate, NGL and gas (mmboe)											
2016	454	18	85	83	26	666	3	0	4	7	673
2017	483	17	85	90	21	696	6	0	2	9	705
2018	469	15	76	116	30	707	6	-	-	6	713

Statoil (2019) Annual Report 2018 and 20-F, page 77.



2017 AnnRpt.

Cell: H9**Comment:** Rick Heede:

Statoil was incorporated as a limited liability company under the name Den Norske Stats Oljeselskap AS on 18 September 1972. As a company wholly owned by the Norwegian State, Statoil's role was to be the government's commercial instrument in the development of the oil and gas industry in Norway. In 2001, the company became a public limited company listed on the Oslo and New York stock exchanges, and it changed its name to Statoil ASA. On 1 October 2007, the oil and gas division of Norsk Hydro ASA was merged with Statoil, and the company was given the temporary name of StatoilHydro. On 1 November 2009, the company changed its name back to Statoil.

Source: www.statoil.com: history

With the Ekofisk discovery in 1969, the Norwegian oil adventure really began. Production from the field started on 15 June 1971, and in the following years a number of major discoveries were made. Exploration in the 1970s was confined to the area south of the 62nd parallel. The shelf was gradually opened, and only a restricted number of blocks were awarded in each licensing round. Foreign companies dominated exploration off Norway in the initial phase, and were responsible for developing the country's first oil and gas fields. Statoil was created in 1972, and the principle of 50 percent state participation in each production licence was established. This rule was later changed so that the Storting (parliament) can evaluate whether the level of state participation should be lower or higher, depending on circumstances.

From 1 January 1985, the State's participation in petroleum operations was reorganised. The State's participation was split in two, one linked to the company and the other becoming part of the State's Direct Financial Interest (SDFI) in petroleum operations. SDFI is an arrangement in which the State owns interests in a number of oil and gas fields, pipelines and onshore facilities. Each government take is decided when production licences are awarded and the size varies from field to field. As one of several owners, the State pays its share of investments and costs, and receives a corresponding share of the income from the production licence. The Storting resolved in the spring of 2001 that 21.5 percent of the SDFI's assets could be sold. 15 percent was sold to Statoil and 6.5 percent was sold to other licensees. The sale of SDFI shares to Statoil was seen as an important element on the way to a successful listing and privatisation of Statoil. Statoil was listed in June the same year, and now operates on the same terms as every other player on the NCS. Petoro was established in May 2001 as a state-owned limited company to manage the SDFI on behalf of the State.

At the end of 2006, 52 fields were in production on the NCS. In 2006, these fields produced 2.8 million barrels of oil (including NGL and condensate) per day and 88 billion standard cubic metres (scm) of gas.

www.regjeringen.no/en/dep/oed/Subject/Oil-and-Gas/Norways-oil-history-in-5-minutes.html

Cell: M9**Comment:** Rick Heede:

World Bank, 2008b, page 200L "Statoil (then StatoilHydro) is an integrated oil and gas company organized as a public limited liability company. In a 2001 decision the Storting (Norwegian Congress) required that the Norwegian state must continue to own two-thirds of StatoilHydro. Currently the Norwegian government owns 62.5% of Statoil, which ownership interest is managed by the Ministry of Petroleum and Energy. The government plans to increase its ownership interest to 67% over time."

World Bank (2008b) A Citizen's Guide to National Oil Companies, Part B: Data Directory, World Bank, Washington, & Center for Energy Economics, Bureau of Economic Geology Jackson School of Geosciences University of Texas, Austin, 764 pp.

Cell: AA18**Comment:** Rick Heede:

Gordon, Richard, & Thomas Stenvoll (2007) "Statoil: Lessons from a study of political entrepreneurship," in: The Changing Role of National Oil Companies in International Energy Markets, James Baker III Institute for Public Policy, Rice University, 2 March 2007.

Cell: AY24**Comment:** Rick Heede:

Equinor new climate ambitions to reduce the absolute GHG emissions from its operated offshore fields and onshore plants in Norway by 40% by 2030, 70% by 2040 and to near zero by 2050. By 2030 this implies annual cuts of more than 5 million tonnes, corresponding to around 10% of Norway's total CO2 emissions. No mention of product emissions. Base year is 2005. 70% reduction in 2040. From ~13 MtCO2 in 2018 to ~8 MtCO2 in 2030 and ~4 MtCO2 in 20240 and near zero in 2050.

Cell: AP28**Comment:** Rick Heede:

In Figure 9.2, flaring is 11 percent of ~13 million tonnes CO2. This is contrary to the vision for Norwegian petroleum development as stated by the Norwegian Parliament in 1971: Thurber & Istad (p. 642) "Ten Commandments for the Norwegian oil sector," by Storting, 1971, one of which is "The flaring of gas not to be allowed except for short testing periods."

Cell: AQ32**Comment:** Rick Heede:

Quest Offshore Resources, Inc., www.questoffshore.com/Home/ConversionCalculator/

Cell: D33**Comment:** Rick Heede:

Norsk Hydro annual reports 1983-1990 show reams of charted data, but typically aggregates oil and gas in TOE accompanied by no specifics. Oil and gas production (data in TOE) and a chart in the 1987 report (p. 38) showing oil vs gas.

We have estimated Hydro's oil production from its approximate "equity shares of NCS (Norwegian Continental Shelf) production" 1971 to 1986 -- from ~8 percent and declining to ~3.5 percent in 1986 (see percentages in column C). Approximated from Thurber & Tangen Istad, 2012, Figure 14.2 (citing Norwegian Petroleum Directorate data).

This should be viewed as provisional until actual production data is found.

Thurber, Mark C., & Benedicte Tangen Istad (2012) "Norway's evolving champion: Statoil and politics of state enterprise," in Victor et al, eds, Oil & Governance, pp. 599-654.

Cell: B37**Comment:** Rick Heede:

The Norwegian government increased its stake in Norsk Hydro to 51 percent at the end of 1970, and it was thought that Hydro would become Norway's primary oil company. Instead the new administration decided to create a wholly-owned state enterprise -- Statoil, in 1972. The government also directed the remaining private Norwegian oil interests to merge in what became Saga Petroleum, which was acquired by Norsk Hydro in 1999 (although Elf Acquittaine also bid for the privately-held company).

Cell: E37**Comment:** Rick Heede:

The Norwegian government directed the remaining private Norwegian oil interests (after having created Statoil and invested in Norsk Hydro) to merge into what became Saga Petroleum in ~1972, which was acquired by Norsk Hydro in 1999 (although Elf Acquittaine also bid for the privately-held company).

We do not have a complete record of Saga's oil and gas production, but Oil & Gas Journal O&G 100, Sep1993, shows 1992 oil production of 29.5 million bbl, 23.3 million bbl in 1991; gas production totaled 17.1 Bcf in 1992, and 12.4 Bcf in 1991. Inasmuch as our protocol attributes previous oil and gas production to the acquiring entity, it is safe to suggest that Statoil's total undercounts production by a 200-300 million bbl or more.

Cell: AT38**Comment:** Rick Heede:

These percentages are calculated by CMS for 1972-1983.

Cell: H39**Comment:** Rick Heede:

According to the Norwegian Petroleum Directorate, natural gas production started in 1977. We have roughly estimated the gas production by both Norsk Hydro and Statoil for 1977 to the Oil & Gas Journal estimates (starting in 1987). We do not, however, have production data from either Hydro or Statoil for these years, and the allocation between companies may be inaccurate. However, the sum of both companies' production (column J) is considerably below the percentage of total NCS production attributed to Hydro + Statoil (based on O&GJ estimates); see the calculations in column AO on page 3.

Also see details in the oil production calculations for Hydro (1971-1986) and Statoil (1979-1983) in cell notes D33 and E41, respectively.

Cell: I39**Comment:** Rick Heede:

See comment in cellI note H39.

Cell: E41**Comment:** Rick Heede:

We do not have Statoil equity production data for 1979 to 1986, and approximate production from its equity percentage share of NCS and total NCS production.

We have estimated Statoil's oil production from its approximate "equity shares of NCS (Norwegian Continental Shelf) production" 1979 to 1986 -- from ~4 percent and increasing to ~16 percent in 1983 (see percentages in column C). Approximated from Thurber & Tangen Istad, 2012, Figure 14.2 (citing Norwegian Petroleum Directorate data).

This should be viewed as provisional until actual production data is found, or provided by Statoil.

Thurber, Mark C., & Benedicte Tangen Istad (2012) "Norway's evolving champion: Statoil and politics of state enterprise," in Victor et al, eds, Oil & Governance, pp. 599-654.

Cell: AU43**Comment:** Rick Heede:

These percentages are calculated by CMS for 1977-1986.

Cell: E50**Comment:** Rick Heede:

Ambiguous data in Statoil's annual report for 1984. Mentions production by field (but no equity production data), "Statoil's total access to crude increased in 1984 ... exceeded 13 million tonnes" p. 12 (but does not define access), etc.

Takes the datum cited for "access" to crude oil of 13 million tonnes @ 7.33 bbl per tonne = 94.9 million bbl.

Cell: E51

Comment: Rick Heede:
CMS interpolated for 1985-1986 and 1989.

Cell: B56

Comment: Rick Heede:
Statoil joined forces with BP from 1990 to 1999 to explore and produce oil and gas internationally, in Kazakhstan, Azerbaijan, Vietnam, China, Angola, Nigeria, and Algeria; assets in Kazakhstan and Vietnam were later sold. Statoil is one the most internationalized of state-owned National Oil Companies. Thurber and Tangen Istad, 2012, page 622.

Cell: I63

Comment: Rick Heede:
Estimate not available from OGJ100. CMS interpolates.

Cell: B67

Comment: Rick Heede:
While Statoil was partially privatized in 2001, Thurber and Tangen Istad believe the Norwegian government will retain "more than two-thirds stake in Statoil for the foreseeable future." (2012, page 603.)

Cell: D73

Comment: Rick Heede (Jan10):
Hydro (previously Norsk Hydro) sold its oil & gas assets to Statoil as of October 2007.

Cell: E74

Comment: Rick Heede:
AR 2010 online <http://www.statoil.com/AnnualReport2010/en/OurOperations/ProductionVolumesAndPricelInformation/Pages/EntitlementProduction.aspx>; updated 2008 production

Cell: F74

Comment: Rick Heede:
Statoil Group, Oil and Gas entitlements production by geographical areas 2008-2013, crude oil & NGLs, million bbl; www.statoil.com/en/InvestorCentre/AnnualReport/AnnualReport2013/Pages/DownloadCentre.aspx

Cell: I74

Comment: Rick Heede:
AR 2010 online, link in oil comment, 2008 value consistent

Cell: J74

Comment: Rick Heede:
Statoil Group, Oil and Gas entitlements production by geographical areas 2008-2013, Bcf; www.statoil.com/en/InvestorCentre/AnnualReport/AnnualReport2013/Pages/DownloadCentre.aspx

Cell: T74

Comment: Rick Heede:
Statoil "working interest liquids production in 2008" at 1,199 thousand bbl per day. Victor, Hults, & Thurber, 2012, Introduction, Table 1.1, page 24, in Victor et al, eds, 2012, Oil and Governance. Table 1.1 is based on information from Wood Mackenzie's Pathfinder Database; www.woodmacresearch.com

Cell: V74

Comment: Rick Heede:
Statoil "working interest natural gas production in 2008" at 4,647 thousand cf per day. Victor, Hults, & Thurber, 2012.

Cell: D77

Comment: Rick Heede:
Statoil Form 20-F for 2014, page 47, "entitlement production" of crude oil, condensate, and NGLs, in million bbl per year.

Cell: E77

Comment: Rick Heede:
Oil & Gas Journal OGJ100, Sep13 and Sep14.

Cell: I77

Comment: Rick Heede:
Oil & Gas Journal OGJ100, Sep13 and Sep14.

Cell: I80

Comment: Rick Heede:
Statoil Form 20-F for 2014, page 47, natural gas (Bcf).

Cell: D81

Comment: Rick Heede:
Statoil (2018) Annual Report 2017, page 51: Consolidated companies production of oil & condensate, and NGL, by geographic region (total 310 Mb in 2017). Includes entitlement production from Troll field (16 Mb in 2017)

Cell: I82

Comment: Rick Heede:
Statoil Annual Report & 20-F 2016, page 49. Natural gas totals 1,661 Bcf, of which 1,338 Bcf Norway, Eurasia 34 Bcf, Africa 72 Bcf, Americas 227 Bcf.

Cell: I83

Comment: Rick Heede:
Statoil (2018) Annual Report 2017, page 51: Consolidated companies production of natural gas, by geographic region. Includes entitlement production from Troll field (384 Bcf).

Cell: D84

Comment: Rick Heede:
Statoil (2019) Annual Report 2018 and 20-F, page 77, in Mb per year: 303 Mb oil and condensate, plus 62 Mb of NGLs.

Cell: I84

Comment: Rick Heede:
Statoil (2019) Annual Report 2018 and 20-F, page 77, in Bcf per year: 1,953 Bcf (and 1,873 Bcf in 2017). Of 2018 gas production, 1,502 Bcf in Norway, 318 Bcf in US, and the remainder in Africa, Eurasia.