



Oil Is Here To Stay, But At What Price? Don't Ditch Hedging!

Liz Bossley, CEO, Consilience

Tuesday, 04 October 2022



A Word From Today's Chairman

Professor Michael Mainelli

Chairman
Z/Yen Group





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Today's Agenda

- 16:00 – 16:05 Chairman's Introduction
- 16:05 – 16:25 Keynote Presentation – Liz Bossley
- 16:25 – 16:45 Question & Answer



Today's Speaker

Liz Bossley
CEO
Consilience

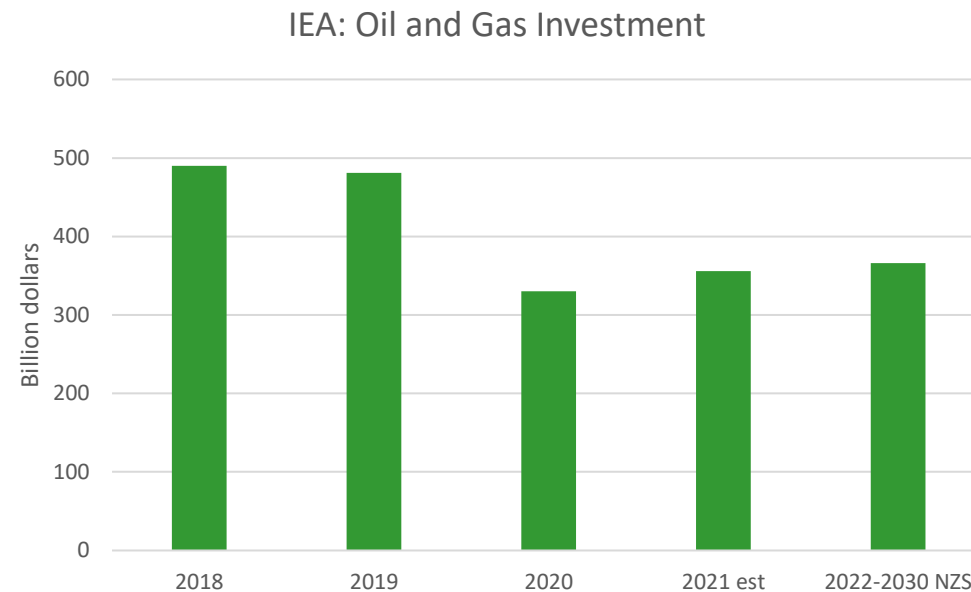


**Oil is here to stay but at what
price? Don't ditch hedging!**

**Z/Yen Group Ltd
Webinar
4th October 2022**

The IEA

- NET ZERO BY 2050 “..... The energy sector is responsible for almost three-quarters of the emissions that have already pushed global average temperatures 1.1 °C higher..... (the) global population is set to grow by some 2 billion people to 2050..... a low emissions revolution is long overdue.....An outlook based on today’s policy settings.....shows aggregate fossil fuel demand slowing to a plateau in the 2030s and then falling slightly by 2050....”



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- “Exxon Mobil and Chevron are both boosting oil production at the mammoth Permian Basin field in West Texas and New Mexico because of the surge in oil prices to their highest level in 14 years.”
 - “OPEC+ will cut production in October 2022, reversing an upward adjustment of 0.1 mb/d in September 2022.”
 - “People in Europe are complaining about gas prices and fuel prices being high. It’s high because we did not invest enough in years,” CEO of Total Energy
 - “We need more investment in the North SeaTurning off domestic production – as some are calling for – would be completely insane right now and we are not going to do it.” UK Chancellor [but the Labour party wants a Windfall Profit Tax on fossil fuels]

Poll:

What will be the nominal price of Brent crude oil in 2042, (20 years from now) in dollars of the day:

- a. \$10-50 per barrel (/bbl)
- b. \$51-100/bbl
- c. \$101-150/bbl
- d. >\$150/bbl

-
- Investing in oil exploration and production or buying oil assets requires financing, probably involving an element of debt
 - Lenders insist on hedging to protect debt servicing or repayment
 - But how much should you hedge?
 - Revenue Analysis Apportionment and Hedging (RAAH)
 - <https://ceag.org/oil-field-hedging-software-more-detail/>

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- You Only Want to Hedge After-Tax Revenue
 - Retained after-tax revenue depends on:
 - Royalty paid in cash or in kind;
 - How much and how quickly are you allowed to recover costs;
 - The govt's or National Oil Company's (NOC) profit share;
 - The petroleum tax rate;
 - Corporation/company and other taxes apply; and,
 - Does the NOC use a different "OSP" in calculating the above than the actual sales price you achieve?
 - What if you get any of these assumptions wrong? RAAH allows you to play around with "What if?" Scenarios

- How are your Hedges Taxed?
- If your hedge gains and losses are not recognized as recoverable field costs, which in most cases they are not, you have to scale down your hedges for the ratio of physical retained revenue to hedge gain/loss retained revenue. Otherwise, you will be over-hedged

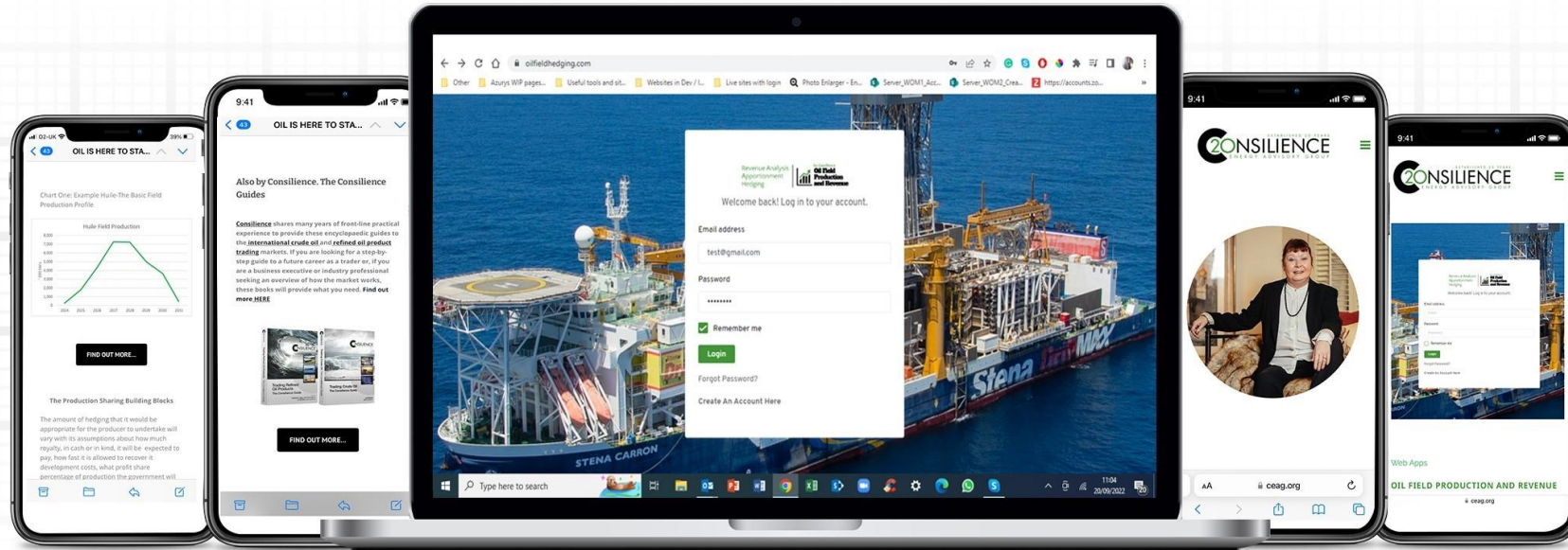
Table One: The Scaling Factor with which to Multiply the Physical Volume to Calculate the Hedge Volume Needed

Hedge Scaling Factor	ORF%																		
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95
5	1.00	1.06	1.12	1.19	1.27	1.36	1.46	1.58	1.73	1.90	2.11	2.38	2.71	3.17	3.80	4.75	6.33	9.50	19.00
10	0.95	1.00	1.06	1.13	1.20	1.29	1.38	1.50	1.64	1.80	2.00	2.25	2.57	3.00	3.60	4.50	6.00	9.00	18.00
15	0.89	0.94	1.00	1.06	1.13	1.21	1.31	1.42	1.55	1.70	1.89	2.13	2.43	2.83	3.40	4.25	5.67	8.50	17.00
20	0.84	0.89	0.94	1.00	1.07	1.14	1.23	1.33	1.45	1.60	1.78	2.00	2.29	2.67	3.20	4.00	5.33	8.00	16.00
25	0.79	0.83	0.88	0.94	1.00	1.07	1.15	1.25	1.36	1.50	1.67	1.88	2.14	2.50	3.00	3.75	5.00	7.50	15.00
30	0.74	0.78	0.82	0.88	0.93	1.00	1.08	1.17	1.27	1.40	1.56	1.75	2.00	2.33	2.80	3.50	4.67	7.00	14.00
35	0.68	0.72	0.76	0.81	0.87	0.93	1.00	1.08	1.18	1.30	1.44	1.63	1.86	2.17	2.60	3.25	4.33	6.50	13.00
40	0.63	0.67	0.71	0.75	0.80	0.86	0.92	1.00	1.09	1.20	1.33	1.50	1.71	2.00	2.40	3.00	4.00	6.00	12.00
45	0.58	0.61	0.65	0.69	0.73	0.79	0.85	0.92	1.00	1.10	1.22	1.38	1.57	1.83	2.20	2.75	3.67	5.50	11.00
50	0.53	0.56	0.59	0.63	0.67	0.71	0.77	0.83	0.91	1.00	1.11	1.25	1.43	1.67	2.00	2.50	3.33	5.00	10.00
55	0.47	0.50	0.53	0.56	0.60	0.64	0.69	0.75	0.82	0.90	1.00	1.13	1.29	1.50	1.80	2.25	3.00	4.50	9.00
60	0.42	0.44	0.47	0.50	0.53	0.57	0.62	0.67	0.73	0.80	0.89	1.00	1.14	1.33	1.60	2.00	2.67	4.00	8.00
65	0.37	0.39	0.41	0.44	0.47	0.50	0.54	0.58	0.64	0.70	0.78	0.88	1.00	1.17	1.40	1.75	2.33	3.50	7.00
70	0.32	0.33	0.35	0.38	0.40	0.43	0.46	0.50	0.55	0.60	0.67	0.75	0.86	1.00	1.20	1.50	2.00	3.00	6.00
75	0.26	0.28	0.29	0.31	0.33	0.36	0.38	0.42	0.45	0.50	0.56	0.63	0.71	0.83	1.00	1.25	1.67	2.50	5.00
80	0.21	0.22	0.24	0.25	0.27	0.29	0.31	0.33	0.36	0.40	0.44	0.50	0.57	0.67	0.80	1.00	1.33	2.00	4.00
85	0.16	0.17	0.18	0.19	0.20	0.21	0.23	0.25	0.27	0.30	0.33	0.38	0.43	0.50	0.60	0.75	1.00	1.50	3.00
90	0.11	0.11	0.12	0.13	0.13	0.14	0.15	0.17	0.18	0.20	0.22	0.25	0.29	0.33	0.40	0.50	0.67	1.00	2.00
95	0.05	0.06	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.11	0.13	0.14	0.17	0.20	0.25	0.33	0.50	1.00

Poll:

Your oil field production is taxed at 80% of the sales price. Your hedge gains are taxed and losses relieved at 25%. What percentage of your future production stream should your debt financier be encouraging you to hedge to ensure that your after-tax revenue is what you expected it to be when you opened the hedges?

- a. 320%
- b. 80%
- c. 27%
- d. 25%



Liz Bossley, Consilience Energy Advisory Group Ltd,
311 East Block County Hall, Forum Magnum Square,
London SE1 7GN.

Tel: + 44 (0) 7384 103111

Mobile + 44 (0) 7901 555556

Email lizbossley@ceag.org or sakhikaur@ceag.org



Comments, Questions & Answers





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Thank You For Participating

Forthcoming Events

- Wed, 05 Oct (15:00-15:45) Financial Services In Scotland - Edinburgh & Glasgow As Financial Centres
- Thu, 6 Oct (08:00-09:00) A Breakfast Roundtable Discussion: Smart Policy Binding & Generation For Commercial Insurance
- Mon, 10 Oct (11:00-11:45) Avoiding Financial Crises
- Wed, 12 Oct (10:00-10:45) Personal Data: The New Charitable Economic Asset

Visit <https://fsclub.zyen.com/events/forthcoming-events/>

Watch past webinars <https://www.youtube.com/zyengroup>