



# Environmental Defenders Office

18 July 2023

Ads Standards  
PO Box 5110  
BRADDON ACT 2612

Complaint lodged via website at: [www.adstandards.com.au](http://www.adstandards.com.au)

## Complaint about radio advertisement by Woodside Energy Group Ltd

1. We act for Greenpeace Australia Pacific Ltd (**Greenpeace**). Greenpeace is a leading independent campaigning organisation that uses peaceful protest and creative confrontation to expose global environmental problems and promote solutions that are essential to a green and peaceful future.
2. Our client requests that you investigate whether certain statements made by Woodside Energy Group Ltd (**Woodside**) in a radio advertisement that aired on several Perth radio stations on various dates, including those identified at **Annexure A**, are in breach of the Environmental Claims Code adopted by AANA as part of advertising and marketing self-regulation (the **Code**). A transcript of the Advertisement is at **Annexure A**.

### Claims by Woodside

3. In Woodside's Advertisement the following statements were made:
  - (a) *"Hydrogen, hey... Who would have thought that an energy source like this could help power the world and emit only water when used."*
  - (b) *"At Woodside Energy, we're developing lower carbon solutions such as hydrogen, that will be part of our new energy future. Search [woodside.com](http://www.woodside.com) to find out more."*(together, the **Statements**).
4. Our client considers that the Statements, alone or in combination, represent, expressly or by implication, that:
  - (a) all hydrogen emits only water and is lower in carbon (**Hydrogen Emissions Claim**);
  - (b) all of Woodside's hydrogen currently does, or will, emit only water and be lower in carbon (**Woodside Hydrogen Claim**),(together, the **Claims**).
5. Our client considers that the Claims may breach sections 1(a), 1(c), 2(a) and / or 2(b) of the Code for the following reasons.

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## Why Woodside's Claims breach the Code

### *Meaning of Environmental Claim*

6. The Code defines 'Environmental Claim' to mean:

any express or implied representation that an aspect of a product or service as a whole, or a component or packaging of, or a quality relating to, a product or service, interacts with or influences (or has the capacity to interact with or influence) the Environment.

7. The Claims are Environmental Claims to which the Code applies because they imply that a quality (emissions) relating to a product (hydrogen) influences or has the capacity to influence the Environment (as defined in the Code).
8. The Claims imply that hydrogen and / or Woodside's hydrogen produces no emissions with negative environmental impacts (i.e. greenhouse gas emissions) and that, in comparison to other energy sources, hydrogen has no effect or a beneficial effect on the environment. The Code Practice Note states that an environmental claim in relation to goods may include representations that state or imply benefit to the environment or no effect on the environment.

### *Relevant provisions of the Code*

9. Our client considers the Claims may breach the following provisions of the Code:

- (a) s 1(a), which provides that Environmental Claims shall not be misleading or deceptive or be likely to mislead or deceive;
- (b) s 1(c), which provides that Environmental Claims shall represent the attributes or extent of the environmental benefits or limitations as they relate to a particular aspect of a product or service in a manner that can be clearly understood by the consumer;
- (c) s 2(a), which provides that Environmental Claims must be relevant, specific and clearly explain the significance of the claim; and / or
- (d) s 2(b), which provides that Environmental Claims must not overstate the claim expressly or by implication.

### *Hydrogen Emissions Claim*

10. The Hydrogen Emissions Claim may breach the Code in representing that all hydrogen emits only water and is lower in carbon when, in fact, hydrogen can be produced with multiple processes with vastly different associated emissions.

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11. For example, three types of hydrogen with distinct associated emissions are shown in the image below.<sup>1</sup>

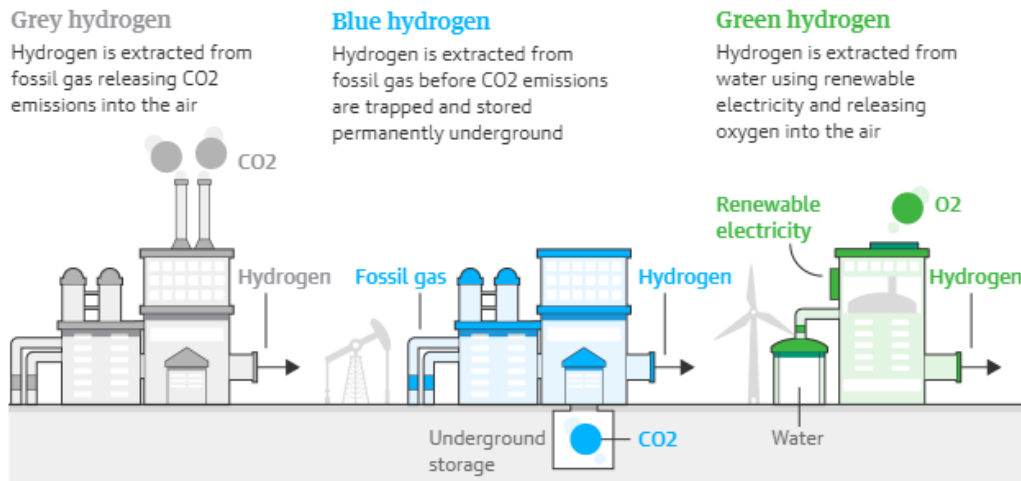


Figure 1: Grey, blue and green hydrogen (source: The Guardian<sup>2</sup>)

12. Of all types of hydrogen, only green hydrogen may emit exclusively water over its whole lifecycle. Green hydrogen is extracted from water by electrolysis, using electricity generated by renewable energy sources.
13. The production of other types of hydrogen involves the emission of harmful greenhouse gases which contribute to global warming. For example, the production of hydrogen from fossil gas (grey hydrogen), which is currently the most common form of hydrogen production, releases into the atmosphere carbon dioxide and unburnt fugitive methane (which is a more potent greenhouse gas than carbon dioxide in terms of its contribution to global warming<sup>3</sup>). The production of hydrogen from coal (black and brown hydrogen) releases large quantities of carbon dioxide into the atmosphere.
14. The production of blue hydrogen from fossil gas involves the separation of hydrogen from gas and utilisation of carbon capture and storage to store carbon dioxide emissions. This process is premised on the assumption that captured carbon can be stored indefinitely without leaking, which is unproven, and carbon capture rates from the production of blue hydrogen have been

<sup>1</sup> Other types of hydrogen include 'brown hydrogen' (hydrogen extracted from brown coal), 'black hydrogen' (hydrogen extracted from black coal), 'pink hydrogen' (which uses nuclear energy to produce electricity for hydrogen via electrolysis) and purple hydrogen (which uses biomass as the fossil fuel source).

<sup>2</sup> The Guardian, 'Is hydrogen really a clean enough fuel to tackle the climate crisis?' (7 March 2023) <<https://www.theguardian.com/environment/2023/mar/07/hydrogen-clean-fuel-climate-crisis-explainer>>.

<sup>3</sup> Over a 20-year period, methane is 84 times more effective than CO<sub>2</sub> in trapping heat, and 28 times more effective over 100 years: Penny D Sackett, 'Expert Report on the Greenhouse Gas and Climate Implications of the Narrabri Gas Project 40 (SSD6456)' (9 August 2020) <[https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2020/03/narrabri-gas-project/correspondence/edo/sackett-narrabri-gas-project-ipc-advice-revised\\_final.pdf](https://www.ipcn.nsw.gov.au/resources/pac/media/files/pac/projects/2020/03/narrabri-gas-project/correspondence/edo/sackett-narrabri-gas-project-ipc-advice-revised_final.pdf)>.

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substantially lower than anticipated in commercial facilities (meaning quantities of carbon dioxide are still being emitted during production).<sup>4</sup> Moreover, the production of blue hydrogen has been shown to result in significant fugitive methane emissions during production.<sup>5</sup>

15. Currently, demand for hydrogen is met almost entirely by hydrogen production from unabated fossil fuels. According to the International Energy Agency (IEA), in 2021 total global production of hydrogen was 94 million tonnes, of which only 35,000 tonnes were from electricity via water electrolysis which equates to approximately 0.04%.<sup>6</sup> Hydrogen produced from fossil gas without carbon capture and storage (grey hydrogen) accounted for approximately 62% of hydrogen production in the same period.
16. It is not clear from the Advertisement what is being compared to make the claim that hydrogen is “lower in carbon”. As discussed, different types of hydrogen involve vastly different emissions, including hydrogen produced from fossil fuels. The Practice Note states that comparative claims should be specific and make clear the basis for the comparison. The Advertisement does not make clear what types of hydrogen are being compared, nor what they are being compared to.
17. For these reasons, the Hydrogen Emissions Claim potentially contravenes:
  - (a) s1(a) of the Code: it is misleading or deceptive or likely to mislead or deceive, as an average consumer in the target market would likely be misled into thinking that all hydrogen emits only water over its lifecycle and is lower in carbon, when this is only the case for green hydrogen, which constitutes a very small amount of the total hydrogen produced;
  - (b) s 1(c) of the Code: the attributes and extent of environmental benefits of hydrogen, including the different types of hydrogen and associated emissions impacts at different lifecycle stages, are not represented in a manner that can be clearly understood by a consumer;
  - (c) s2(a) of the Code: it is not sufficiently specific and clear, and only partial information about the emissions impacts of hydrogen is provided to consumers, which creates an overall misleading impression; and / or

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<sup>4</sup> See, for example, The Guardian, ‘Gas giant Chevron falls further behind on carbon capture targets for Gorgon gasfield’ (16 July 2021) <<https://www.theguardian.com/environment/2022/jul/16/gas-giant-chevron-falls-further-behind-on-carbon-capture-targets-for-gorgon-gasfield>>.

<sup>5</sup> See, for example, Australian National University, ‘“Serious threat” of fugitive emissions with Australia’s hydrogen plan’ (10 August 2021) <<https://cecc.anu.edu.au/news/serious-threat-fugitive-emissions-australias-hydrogen-plan>>; Howarth and Jacobson, ‘How green is blue hydrogen?’, *Energy Science & Engineering* (12 August 2021).

<sup>6</sup> International Energy Agency, *Global Hydrogen Review 2022* (September 2022) <<https://iea.blob.core.windows.net/assets/c5bc75b1-9e4d-460d-9056-6e8e626a11c4/GlobalHydrogenReview2022.pdf>> page 71.

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- (d) s2(b) of the Code: it overstates the positive emissions impacts of hydrogen without sufficient disclaimer of the negative impacts from greenhouse gas emissions including methane associated with different types of hydrogen and at different lifecycle stages.

## *Woodside Hydrogen Claim*

18. The Woodside Hydrogen Claim may breach the Code in representing that Woodside’s hydrogen currently does, or in the future will, emit only water and be lower in carbon when, in fact, Woodside’s projects include both green and blue hydrogen.
19. To the extent that the Woodside Hydrogen Representation relates to Woodside’s future production, we note that the Code Practice Note states that environmental claims relating to future matters should be based on reasonable grounds as at the time the claim was made.
20. Woodside does not currently produce green hydrogen, or any hydrogen that emits only water.
21. Woodside plans to continue to produce types of hydrogen that involve greenhouse gas emissions in the future. For example, at its proposed H2Perth project Woodside intends to produce hydrogen using electrolysis and extraction from fossil gas and acknowledges that this will involve greenhouse gas emissions (in relation to which it may use offsets or other abatement methods).<sup>7</sup> Woodside states that hydrogen production from fossil gas is “expected” to cease by 2050, but this is merely an expectation with no concrete plans. Moreover, even for the hydrogen produced using electrolysis Woodside states that it is “targeting” 80% renewable electricity, and therefore there would be associated greenhouse gas emissions (which Woodside says it intends to offset).
22. Woodside has also made public statements to the effect that its future portfolio will not be limited to one type of hydrogen, for example stating “Our customers have different end-use cases, volume and schedule requirements and price sensitivities. So, it is important to offer a hydrogen portfolio that is diversified across locations, timeframes, production methodologies and carbon management tools.”<sup>8</sup>
23. There is considerable uncertainty around future production and use of green hydrogen. The IEA found that while there is a significant number of projects planned for production of low emission hydrogen (including green hydrogen and blue hydrogen with adequate levels of carbon capture and storage) only 4% are under construction or have reached final investment decision. Among

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<sup>7</sup> See, Woodside Energy, ‘Proposed H2Perth Project’ (November 2022)

<[https://www.woodside.com/docs/default-source/current-consultation-activities/h2perth-general-information-sheet.pdf?sfvrsn=ec3e81d6\\_6](https://www.woodside.com/docs/default-source/current-consultation-activities/h2perth-general-information-sheet.pdf?sfvrsn=ec3e81d6_6)>.

<sup>8</sup> Australian Financial Review, ‘Woodside says Europe’s renewable rule shouldn’t apply to Australia’ (27 February 2023) <<https://www.afr.com/companies/energy/woodside-says-europe-s-renewable-rule-shouldn-t-apply-to-australia-20230224-p5cnax#:~:text=While%20companies%20like%20Fortescue%20Metals,and%20capturing%20the%20carbon%20emissions>>.

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the key reasons for this are uncertainties about demand, lack of regulatory frameworks and of available infrastructure to deliver hydrogen to end users.<sup>9</sup>

24. The Climate Council has also observed that “green hydrogen remains far off from being a significant contributor to global energy supply.”<sup>10</sup>
25. For these reasons, the Woodside Hydrogen Claim potentially contravenes:
- (a) s1(a) of the Code: it is misleading or deceptive or likely to mislead or deceive, as an average consumer in the target market would likely be misled into thinking that *all* of Woodside’s hydrogen does or will emit only water and is or will be lower in carbon, when this is not currently the case and Woodside has no reasonable basis to assert that it will be in the future;
  - (b) s 1(c) of the Code: the attributes and extent of environmental benefits of Woodside’s current and / or future hydrogen, including the different types of hydrogen and associated emissions impacts at different lifecycle stages, are not represented in a manner that can be clearly understood by a consumer;
  - (c) s2(a) of the Code: it is not sufficiently specific and clear, and only partial information about the emissions impacts of Woodside’s current and / or future hydrogen is provided to consumers, which creates an overall misleading impression; and / or
  - (d) s2(b) of the Code: it overstates the positive emissions impacts of Woodside’s current and / or future hydrogen without sufficient disclaimer of the negative impacts from greenhouse gas emissions associated with different types of hydrogen and at different lifecycle stages.

*The Claims are not relevantly limited or sufficiently qualified*

26. We note that the words “when used” are included after the words “emit only water” in the Statements.
27. Our clients consider that these words have no impact on the Claims which are represented by the Statements.
28. An average consumer would understand the advertisement to be representing that hydrogen, and / or Woodside’s (current and / or future) hydrogen, emits only water over its entire lifecycle. The advertisement suggests that hydrogen may be differentiated from other energy sources on the basis that it emits “only water”. This is the dominant and lasting message that is conveyed. The Code Practice Note states, in relation to section 2(a), that “it is the overall impression given to the consumer that is important.”

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<sup>9</sup> Ibid, page 6.

<sup>10</sup> David Stent, ‘The Challenges in Pursuit of a Green Hydrogen Economy’, *Climate Council* (18 October 2021) <<https://climatecouncil.com/articles/the-challenges-in-pursuit-of-a-green-hydrogen-economy/>>.

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29. The words “when used” do nothing to alter or qualify this message. Specifically, the words do not clearly limit the statements regarding emissions to a specific point in the lifecycle of hydrogen (e.g. combustion). “When used” is a vague term, not a technical term with a specific meaning. The “use” of energy does not have any essential link to combustion. For example, in many instances when a consumer turns on an electric appliance powered by electricity from the grid (a potential point when the consumer is “using” electricity), the electricity has already been produced at a generation plant (where any combustion emissions are released) and it is simply the transmission of electricity that is occurring. Moreover, consumers are increasingly seeking to move away from energy sources derived from fossil fuels towards renewable energy sources such as solar – while the ultimate appliances using the energy may be identical, it is the lifecycle emissions associated with the energy sources that are of significance to consumers. Overstating environmental benefits through the exclusion of information about lifecycle emissions, and without clear and specific language explaining the limitations of the claims, misleads and confuses consumers.
30. The form of the advertisement is also of importance, being a short radio advertisement, which consumers hear only once. The words “when used” are at the end of the sentence after the dominant message about hydrogen “emit[ting] only water” has already been conveyed. The subsequent words “when used” do not nullify the misleading impression nor operate as a sufficiently clear, specific and prominent disclaimer.
31. If you have any queries, please do not hesitate to contact us by email at [kirsty.ruddock@edo.org.au](mailto:kirsty.ruddock@edo.org.au) or [asha.keaney@edo.org.au](mailto:asha.keaney@edo.org.au) or by phone at (02) 7229 0031 or (02) 9054 9280.

Yours faithfully

**Environmental Defenders Office**

**Kirsty Ruddock**  
Managing Lawyer  
Safe Climate (Corporate and Commercial)

**Asha Keaney**  
Solicitor  
Safe Climate (Corporate and Commercial)



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## Annexure A Details of the Advertisement

We set out below an approximate transcript of the Advertisement.

"Hydrogen. Hey, who would have thought?  
 Who would have thought what?  
 Who would have thought that an energy source like this could help power the world and emit only water when used.  
 Hmm. Sounds good. Speaking of which, maybe it's time you emitted some energy picking up some of your clothes.  
 At Woodside Energy, we're developing lower carbon solutions such as hydrogen, that will be part of our new energy future. Search [woodside.com](http://woodside.com) to find out more."

The advertisement aired on several radio stations on at least the following dates.<sup>11</sup>

Radio station	Dates of Advertisement
<b>6PR 882 Perth</b>	1/7/23, 30/6/23, 29/6/23, 28/6/23, 25/6/23, 18/6/23, 14/6/23, 11/6/23, 4/6/23, 3/6/23, 25/5/23, 24/5/23, 23/5/23, 22/5/23, 21/5/23, 20/5/23, 13/5/23, 7/5/23
<b>92.9 Triple M Perth</b>	30/6/23, 29/6/23, 28/6/23, 27/6/23, 26/6/23, 25/6/23, 24/6/23, 23/6/23, 22/6/23, 21/6/23, 20/6/23, 19/6/23, 18/6/23, 17/6/23, 16/6/23, 15/6/23, 14/6/23, 13/6/23, 12/6/23, 11/6/23, 10/6/23, 9/6/23, 7/6/23, 6/6/23, 5/6/23, 4/6/23, 3/6/23, 2/6/23, 1/6/23, 31/5/23, 30/5/23, 29/5/23, 28/5/23, 25/5/23, 24/5/23, 23/5/23, 22/5/23, 21/5/23, 20/5/23, 19/5/23, 18/5/23, 17/5/23, 16/5/23, 15/5/23, 14/5/23, 13/5/23, 12/5/23, 11/5/23, 10/5/23, 9/5/23, 8/5/23, 7/5/23, 6/5/23, 5/5/23, 4/5/23, 3/5/23, 2/5/23, 1/5/23
<b>96FM Perth</b>	30/6/23, 29/6/23, 28/6/23, 27/6/23, 26/6/23, 25/6/23, 24/6/23, 23/6/23, 22/6/23, 21/6/23, 20/6/23, 19/6/23, 18/6/23, 17/6/23, 16/6/23, 15/6/23, 14/6/23, 13/6/23, 12/6/23, 11/6/23, 10/6/23, 9/6/23, 8/6/23, 7/6/23, 6/6/23, 5/6/23, 4/6/23, 3/6/23, 2/6/23, 1/6/23, 31/5/23, 30/5/23, 29/5/23, 28/5/23, 27/5/23, 26/5/23, 25/5/23, 24/5/23, 23/5/23, 22/5/23, 21/5/23, 20/5/23, 19/5/23, 18/5/23, 17/5/23, 16/5/23, 15/5/23, 14/5/23, 13/5/23, 12/5/23, 11/5/23, 10/5/23, 9/5/23, 8/5/23, 7/5/23, 6/5/23, 5/5/23, 4/5/23, 3/5/23, 2/5/23, 1/5/23
<b>MIX 94.5 Perth</b>	30/6/23, 29/6/23, 28/6/23, 27/6/23, 26/6/23, 25/6/23, 24/6/23, 23/6/23, 22/6/23, 21/6/23, 20/6/23, 19/6/23, 18/6/23, 17/6/23, 16/6/23, 15/6/23, 14/6/23, 13/6/23, 12/6/23, 10/6/23, 9/6/23, 8/6/23, 7/6/23, 6/6/23, 5/6/23, 3/6/23, 2/6/23, 1/6/23, 31/5/23, 30/5/23, 29/5/23, 28/5/23, 26/5/23, 25/5/23, 24/5/23, 23/5/23, 22/5/23, 21/5/23, 20/5/23, 19/5/23, 18/5/23, 17/5/23, 16/5/23, 15/5/23, 14/5/23, 13/5/23, 12/5/23, 11/5/23, 10/5/23, 9/5/23, 8/5/23, 6/5/23, 5/5/23, 4/5/23, 3/5/23, 2/5/23, 1/5/23

<sup>11</sup> We note that there may be additional radio stations and / or dates on which the Advertisement aired that we are not aware of.