AHC Hydrogen Certification Working Group – Meeting Notes & Actions

26 November 2020

1. Definition of Well to Gate

- All agreed on Definition of Well to Gate being:

"Carbon footprint of gas (for the purposes of steam methane reforming) as it was extracted, through to hydrogen gas production facility, through to selling Hydrogen at the gate of the facility."

2. Offsets

- Agreement between members in the meeting:
  - The offset approach should meet a common standard and be proven to be credible
  - Common standard to fall outside of Hydrogen Certification Scheme

⇒ **Felicity / Richard** to follow up with Woodside on their position re Offsets

3. How are grid connected electrolysers treated?

- For grid connected electrolysis, Power Purchase Agreements or other offtake agreements in place with renewable developer would be sufficient to ensure that hydrogen produced from that power would be counted as renewables.
- When there is no direct purchase of renewable power, or in times when the sun is not shining or the wind is not blowing, the purchase and surrender of LGC's and renewable GOs would ensure the power input is counted as renewable.
- With regard to carbon, power purchased from the grid without a direct link to a renewable PPA will have an associated gross carbon footprint. In that instance, the use of LGCs and renewable GOs will contribute to netting out the carbon footprint.
- The key is to provide auditable transparency.

⇒ **Tony / Martin / Felicity / Rachelle/ Michael** to work through consequences of annual measures vs intervals. An annual facility emissions footprint would include the total emissions associated with grid purchases through the year. Considerations include:
  - Ensuring the annual average based at facility factors in seasonal fluctuations
  - Going too granular is expensive and creates a fickle measure

4. Prototype certification tool

- Take a tool agnostic approach and consider the details of how it might be done.
- Apply to 5 process walk-through projects

5. Projects for a process walk-through for a Certification scheme

a) Categorisations for the ways in which producing Hydrogen in Australia, as agreed by the Working Group are:

I. Co-located dedicated off grid solar and wind to Hydrogen production
II. Grid connected:
  a. With/without LGCs
  b. Direct purchase of renewables
  c. Check renewables without access to LGCs (eg hydro)
III. SMR type production – against various offset schemes or carbon capture
IV. Coal gasification against various carbon emission scenarios

⇒ **Andrew B** to provide some project scenarios they have considered.
⇒ **Felicity / Karine** to circulate categorisations and lock in volunteers to work through each process walk-through – request members to consider which technical experts
⇒ **Felicity / Karine** to arrange walk-through with James and Rebecca from Australian Hydrogen Certification Project Group

b) What questions should be answered during walk-through?

I. Understand step by step how the production process works, what information is required, what information is currently available
II. How might this work with target markets – would this fit within international requirements – take a complimentary approach (Certified RE 100)?
III. What is required (i.e., rules) to determine carbon footprint?
IV. What other frameworks do we need this to interface with?
V.
VI. How frequently would a scheme need to be assessed and maintained?

VII. What type of data capture and measurement tool would a scheme require? What platform do we use? Do we currently have a system to track this information and how easy is this to achieve?