

# Producer 1

**Producer 1 is a large pig producer, predominantly utilising conventional housing, with some deep litter. The producer has previously participated in supply chain carbon assessment projects and is currently undertaking in-house carbon accounting. This case study investigated two of their farms.**



## Current emissions profile/breakdown:

| Emission type                                   | Farm 1<br>(% total emissions) | Farm 2<br>(% total emissions) |
|---|-------------------------------|-------------------------------|
| <b>Scope 1 – Covered anaerobic lagoon</b>       |                               |                               |
| Scope 1 – Pig CH <sub>4</sub> manure emissions  | 5%                            | -                             |
| Scope 1 – Pig N <sub>2</sub> O manure emissions | 11%                           | -                             |
| Scope 1 – Pig enteric emissions                 | 18%                           | -                             |
| <b>Scope 2 – Anaerobic lagoon</b>               |                               |                               |
| Scope 1 – Pig CH <sub>4</sub> manure emissions  | 48%                           | 18%                           |
| Scope 1 – Pig N <sub>2</sub> O manure emissions | 3%                            | 2%                            |
| Scope 1 – Pig enteric emissions                 | 5%                            | 2%                            |
| <b>Scope 2 &amp; 3</b>                          |                               |                               |
| Scope 2 – Grid electricity                      | 9%                            | 8%                            |
| Scope 3 – Emissions from energy                 | 0%                            | 0%                            |

## Process:

Two collaborative workshops were held with the producer.

### Workshop 1:

Producer 1's current status on emissions reduction was discussed. The following needs and gaps in industry knowledge and resources were identified:

- There are gaps in the producer's carbon accounting methodology, where they are looking to refine calculations of enteric (livestock) emissions.
- Data management is a challenge where the producer is working towards developing a digitised system for managing the inventories of their farms.
- Return on investment is a key consideration for Producer 1 when deciding which emissions reduction strategies to pursue.
- The extension of the ACCU Scheme crediting period was very helpful for the producer to register ACCU projects, but newness and additionality requirements remain a challenge for registration at sites where covered anaerobic ponds (CAP) are either already installed or included in development applications.

### Workshop 2:

This workshop was held to map a preliminary emissions reduction plan for the farms to 2030. This included the planned emissions reduction opportunities, and upstream factors (e.g. decarbonisation of the electricity grid) and providing an estimate of the total emissions reduction potential:

- CAPs at all viable sites (Producer 1 noted they would pursue CAPs at sites even if they are unable to be registered as ACCU projects).
- Progressively phase out gas heating through optimised shed design (i.e. insulation, conversion to electric heating and environmental control).
- Investigate the potential for low emissions and renewable fuels to replace traditional fuels (i.e. diesel, petrol, LPG).
- **A 43% (Farm 1) and 59% (Farm 2) reduction of Scope 1 and 2 emissions by 2030 from a 2025 baseline could potentially be achieved.**

## Industry needs:

The following requirements for industry to make on-farm emissions reduction more achievable were identified:

- Changes to ACCU Scheme rules to allow producers to register CAPs as ACCU projects when they are included in development approvals.
- Investigation of cost-effective feed additives to reduce enteric (livestock) emissions without decreasing biogas potential from CAPs or negatively impacting feed conversion ratios.
- A tool to estimate smaller volumes of carbon stored in outdoor areas (soils) or vegetation buffers (trees).



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