

Tonga Circular Economy Project - Biogas Feasibility Study
- Feasibility studies on the biogas technologies - Attachment F: Replies to issues raised during
the Zoom conference of Tuesday the 13th of April 2021

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This Zoom conference was attended by:

- Mr. Ken Davey
- Manaia Halafihi: CEO - Ministry of Agriculture Food and Forestry
- Tevita Tukunga: Dr. Tevita Tukunga - Director for Energy Department
- Sione Lui Tausinga: Department of Energy

Issue raised requiring a response

General issues were raised in relation to the agricultural elements of the proposed 3MWe plus biomethane biogas project with specific questions raised in relation to how Tongan farmers that are connected to project will be supported.

Replies provided

Background

With the direct support of the Ministry of Agriculture Food and Forestry (MAFF), over 40 community consultations were undertaken in Tonga. These community consultations were focused on agricultural and agri-industrial aligned circular economy systems enabled by anaerobic digestion, biogas, and digestate. Given the purpose of these community consultations, most were undertaken with members of the Tongan agricultural and related sectors.

From this MAFF supported work, it was established that there is a great deal of interest in growing Hybrid Tropical Grass (HTG) as a substrate for the proposed biogas project. It was further established that there was an accompanying interest to become more involved in this proposed agriculturally aligned biogas project and in the broader, longer term development of agricultural and agri-industrial aligned circular economy systems enabled by anaerobic digestion, biogas, and digestate.

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Specific support for the farmers

The feasibility study documentation establishes that the project will support farmers in the following ways:

- ✓ Provide a desktop analysis of where HTG can be grown on the main Island of Tongatapu.
- ✓ Sourcing and importing the sterile HTG cuttings in support of establishing an initial cropping area that will become the source of sterile cuttings for commercial plantings.
- ✓ Implementing the complete mechanisation of the HTG supply chain covering planting, harvesting, and transport. US\$5million has been allocated to this element in the project CAPEX (Attachments B and C).
- ✓ Building and equipping a modern, state of the art biogas and agricultural laboratory and testing facility. US\$2million has been allocated to this element in the project CAPEX (Attachments B and C).
- ✓ Providing an opportunity for the participating farmers to generate gross revenues of approximately US\$4,000 from growing a hectare of HTG (Attachments B and C).
- ✓ Providing the participating farmers with certainty and security through offering long-term HTG offtake agreements.
- ✓ Providing additional loyalty payments from the project revenues (Attachments B and C).
- ✓ Providing the opportunity to become equity investors in the biogas project should they wish (Attachments B and C).
- ✓ Supplying participating farmers with digestate in support of growing the HTG and continually building soil carbon.

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MAFF letter of endorsement

MAFF co-developed the abovementioned project strategies and specific agricultural support elements and have provided an unequivocal letter of endorsement (Attachment H pages 1 and 2).