















MINISTÉRIO DO DESENVOLVIMENTO REGIONAL MINISTERIO DO MEIO AMBIENTE

MINISTÉRIO DE MINAS E ENERGIA MINISTERIO D GRICULTURA, PECUÁRI E ABASTECIMENT MINISTÉRIO D CIÊNCIA, TECNOLOGI E INOVAÇÕE



## **Executive Summary**

The anaerobic digestion process is an attractive solution from the point of view of environmental treatment and energy use. Despite presenting characteristics that indicate ease of operation and low complexity for some models of anaerobic reactors, having knowledge related to the operation of these equipments is fundamental to ensure a constant production of biogas and promote an adequate treatment of the raw material.

In the national context, the lack of standardized projects for biogas systems, operational parameters, including raw material composition, steps and operational procedures is still considered a barrier to the development of the Brazilian biogas chain. Thus, the guide of good practices for operating anaerobic reactors was structured.

This document presents in detail the characteristics and compositions of the main substrates available in southern Brazil, what are the stages of management, preparation and treatment of these substrates in reactors as well as the good practices to be adopted to ensure an effective and constant production of biogas.

The guide of good practices in the operation of anaerobic reactors also includes guidelines in case of problems identification, indicators of possible causes and practices to solve them in an objective way. Among other guidelines, monitoring routines that must be adopted in a biogas plant are presented, this is action, as well as the others aim to ensure the proper functioning of the process and its stability.