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Abstract Title	Minimization of Greenhouse Gases Emissions from Drinking Water Treatment Plants
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Preferred Type of Presentation	Oral Presentation
Thematic Area:	Climate Change and Hydrologic Variability

Abstract Submission

This paper aims to emphasize the drinking water treatment plants as a main greenhouse gas (GHG) emissions resource. Although most of the previous studies have focused on wastewater treatment plants, a non-negligible quantity of energy is consumed in drinking water treatment plants (DWTPs). Energy consumption leads to the greenhouse gas emissions. Also, for potable water treatment, chemical and biochemical treatment methods have been carried out. Especially, groundwater treatment leads to higher GHG emissions. These treatment processes have emitted greenhouse gases emissions. According to European Union (EU) Green Deal, GHG emissions should be zeroized in 2050. In this context, the resources, and quantities of GHG emissions from DWTPs should be determined in order to reduce GHG emissions. Previous studies related to this topic and GHG emissions estimation models of DWTPs were reviewed in this study. Also, the GHG emissions reduction methods have been discussed for DWTPs. The results revealed that many studies focused on greenhouse gas emissions originated from energy consumption for DWTPs.

Abstract Keywords

greenhouse gas emissions, drinking water treatment plants, reduction, climate change

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