

Abstrak

Kenaikan harga dan kelangkaan LPG akibat pengurangan kuota subsidi mendorong perlunya pemanfaatan energi alternatif yang berkelanjutan, salah satunya adalah biogas yang berbasis limbah kotoran sapi. Kabupaten Pamekasan memiliki potensi besar pengembangan biogas mengingat tingginya populasi ternak sapi potong yang didominasi oleh peternak skala rumah tangga. Penelitian ini bertujuan untuk menganalisis tingkat kepuasan pengguna terhadap penerapan biogas sistem serta mengidentifikasi atribut yang menjadi prioritas perbaikan. Penelitian dilaksanakan pada Agustus–Desember 2025 di sembilan lokasi penerapan biogas di Kabupaten Pamekasan dengan jumlah responden sebanyak 19 orang yang dipilih secara purposive sampling. Metode analisis yang digunakan meliputi uji validitas dan reliabilitas, *Customer Satisfaction Index* (CSI), dan *Importance Performance Analysis* (IPA). Hasil analisis menunjukkan bahwa seluruh atribut penelitian dinyatakan valid dan reliabel. Nilai CSI mengindikasikan bahwa tingkat kepuasan pengguna biogas berada pada kategori sangat puas. Hasil analisis IPA menunjukkan bahwa sebagian besar atribut teknis, ekonomi, sosial, dan lingkungan berada pada kuadran pertahankan prestasi dan kinerja berlebihan. Namun demikian, atribut kelembagaan, yaitu dukungan teknis dari penyedia biogas serta akses pelatihan dan pendampingan, berada pada kuadran prioritas utama yang memerlukan perbaikan. Secara keseluruhan, penerapan biogas di Kabupaten Pamekasan dinilai efektif dalam mendukung pemanfaatan energi terbarukan, meskipun masih diperlukan penguatan aspek kelembagaan untuk menjamin keberlanjutan program.

Kata Kunci: *Biogas, Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), Tingkat Kepuasan*

Abstract

The increase in LPG prices and shortages due to reductions in subsidized quotas has encouraged the need for sustainable alternative energy sources, one of which is biogas derived from cattle manure waste. Pamekasan Regency has significant potential for biogas development, given its large population of beef cattle predominantly managed by small-scale household farmers. This study aims to analyze user satisfaction with the implementation of the Sistem biogas system and to identify priority attributes requiring improvement. The research was conducted from August to December 2025 at nine biogas

implementation sites in Pamekasan Regency, involving 19 respondents selected through purposive sampling. The analytical methods employed included validity and reliability tests, the Customer Satisfaction Index (CSI), and Importance Performance Analysis (IPA). The results indicate that all research attributes were valid and reliable. The CSI indicates that user satisfaction with biogas utilization falls into the “very satisfied” category. The IPA results show that most technical, economic, social, and environmental attributes are positioned in the “maintain performance” and “overperformance” quadrants. However, institutional attributes namely technical support from biogas providers and access to training and assistance are classified within the “top priority” quadrant and therefore require improvement. Overall, the implementation of biogas in Pamekasan Regency is considered effective in supporting renewable energy utilization, although strengthening institutional aspects remains essential to ensure program sustainability.

Keywords: *Biogas, Customer Satisfaction Index (CSI), Importance Performance Analysis (IPA), and Customer Satisfaction*