Impacts of energy communities on tourism: benefits and functions towards green transition

Uglješa Stankov, Miroslav D. Vujičić and Adam B. Carmer

Abstract

Purpose — The purpose of this paper is to draw attention to energy communities (ECs) in the tourism domain as voluntary initiatives combining noncommercial aims with environmental and social community objectives. ECs offer a range of potential benefits for local communities, tourism providers and destinations, including reduced energy costs, enhanced sustainability practices and a unique selling point for attracting environmentally conscious tourists.

Design/methodology/approach — This perspective paper uses a narrative literature review of academic papers, the primary European Union legislation relevant to ECs and online articles to provide an analysis of the current landscape.

Findings — This paper presents the typical benefits, categorized into financial, social and environmental, members of ECs can experience. Highlights include the possible functions of ECs for tourism providers and destinations. In addition to reinforcing sustainable practices, ECs create opportunities for regional value creation, exerting a strong potential to influence destination development. They can become an integral part of governing tourism destinations, driving green social innovation and contributing to tourism branding.

Originality/value — This paper provides early recognition and a clear articulation of the benefits and possible functions ECs offer to the tourism domain. By highlighting their potential positive impact on the environment, society, tourism businesses and policy, this research encourages further investigation in this field.

Keywords Energy management, Energy communities, Tourism policy, Tourism management and marketing, Energy tourism, EU policy

Paper type Viewpoint

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Accepted 20 September 2023
Revised 25 July 2023
20 August 2023
19 September 2023

This research was supported by the H2020 WIDESPREAD-05-2020 Twinning: ExtremeClimTwin (grant agreement No 952384) and by H2020-LC-GD-2020-3 GreenScent-Smart Citizen Education for a Green Future (grant agreement No 101036480) that have received funding from the European Union’s Horizon 2020 research and innovation programme. The research was also supported by The Science Fund of the Republic of Serbia, Grant No. 7739076, Tourism Destination Competitiveness – Evaluation Model for Serbia – TOURCOMSERBIA and the project approved by the Autonomous Province of Vojvodina, Provincial Secretariat for Higher Education and Scientific-Research Activity, Program 2021, with the project title “Research of the entrepreneurial potentials among the local population for using the thermo-mineral water resources of Vojvodina”, 142-451-3137/2022-04 (2021-2024).

doi:10.1108/TR-05-2023-0347
El propósito de este artículo de perspectiva es destacar el papel de las Comunidades Energéticas (CE) en el campo del turismo como iniciativas voluntarias que combinan fines no comerciales con objetivos comunitarios ambientales y sociales. Las CE ofrecen una variedad de beneficios potenciales para las comunidades locales, los proveedores turísticos y los destinos turísticos, incluyendo la reducción de costes energéticos, la mejoras en las prácticas de sostenibilidad y una propuesta única de venta para atraer a turistas concienciados con el medio ambiente.

Este artículo presenta los principales beneficios que los miembros de las CE pueden experimentar en las categorías financieras, sociales y ambientales. Se destacan las posibles funciones de las CE para los proveedores turísticos y los destinos turísticos. Además de reforzar las prácticas sostenibles, las CE crean oportunidades para la creación de valor regional, ejerciendo un marcado potencial para influir en el desarrollo de los destinos. Estas pueden convertirse en una parte integral de la gobernanza de los destinos turísticos, impulsando la innovación social verde y contribuyendo a la marca turística.

Este artículo ofrece un reconocimiento temprano y una articulación clara de los beneficios y posibles funciones que las CE ofrecen al ámbito del turismo. Al resaltar su potencial impacto positivo en el medio ambiente, la sociedad, las empresas turísticas y la política, este estudio impulsa una mayor investigación en este campo.

Objetivo: El propósito de este artículo de perspectiva es destacar el papel de las Comunidades Energéticas (CE) en el campo del turismo como iniciativas voluntarias que combinan fines no comerciales con objetivos comunitarios ambientales y sociales. Las CE ofrecen una variedad de beneficios potenciales para las comunidades locales, los proveedores turísticos y los destinos turísticos, incluyendo la reducción de costes energéticos, la mejoras en las prácticas de sostenibilidad y una propuesta única de venta para atraer a turistas concienciados con el medio ambiente.

Diseño/metodología/enfoque: Este artículo de perspectiva utiliza una revisión narrativa de la literatura académica, la principal legislación de la Unión Europea relativa a las CE y artículos online para proporcionar un análisis del panorama actual de las CE.

Resultados: Este artículo presenta los principales beneficios que los miembros de las CE pueden experimentar en las categorías financieras, sociales y ambientales. Se destacan las posibles funciones de las CE para los proveedores turísticos y los destinos turísticos. Además de reforzar las prácticas sostenibles, las CE crean oportunidades para la creación de valor regional, ejerciendo un marcado potencial para influir en el desarrollo de los destinos. Estas pueden convertirse en una parte integral de la gobernanza de los destinos turísticos, impulsando la innovación social verde y contribuyendo a la marca turística.

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Palabras clave: Gestión energética, Comunidades energéticas, Política turística

Gestión turística y marketing, Turismo energético, Política de la UE

Tipo de papel: Punto de vista

Introduction

Effective energy management is an important aspect of sustainable tourism development, yet studies from different countries show energy efficiency of the tourism industry is a goal yet to be achieved (Buhalis et al., 2023; Pablo-Romero et al., 2021). Although there is a considerable amount of research dedicated to analyzing the tourism industry’s energy consumption, there is a lack of emphasis on energy production. Several authors investigated visiting energy-production infrastructure, or so-called energy tourism (Frantál and Urbánková, 2017; Vourdoubas, 2022), viewed as a niche of industrial tourism. Recent trends demonstrate energy consumers, particularly in the European Union (EU), will have a more significant role as active participants (producers) in the energy system, fueled by the EU’s strong promotion of renewable energy sources and the trend of increased involvement of customers in the production process (European Environmental Agency, 2022). Energy communities (ECs) are one of the critical components of the EU’s energy transformation (Sokołowski, 2020).

EC’s are open, voluntary initiatives combining noncommercial aims with environmental and social community objectives (European Commission, 2023a) gathered around issues including (renewable) energy generation (solar photovoltaic systems, wind farms, biomass installations or hydroelectric plants), energy sharing, trading, storage and management, energy efficiency, community engagement and participation, financial and legal support. A recent study on citizen-led energy actions from within Europe showed the existence of over different 10,000 initiatives in the past 20 years, covering different energy sector activities (Wierling et al., 2023). The two types of ECs are as follows: renewable energy communities (RECs) and citizen energy communities (CECs). The differences between the two types are related to geographical scope (e.g. REC must be in the vicinity of renewable energy projects owned/developed by the community), activities (e.g. CEC could rely on fossil fuel sources), participants, autonomy and effective control (European Commission, 2023b).

EC initiatives can be observed in various geographical locations, including both established tourism regions and emerging destinations. The current focal points of interest within tourism primarily revolve around island destinations. The island of Halki (Chalki), Greece, is a
pioneering ecological island. Halki serves as a model for solar power communities, effectively supplying clean energy to the entire population, including tourism businesses, through the establishment of an EC (European Commission, 2022). Ventotene Island, Italy, earned the distinction as the Mediterranean’s first EC island. This achievement is predicated on the utilization of renewable energy sources, accompanied by a comprehensive integration of environmental protection, innovation, new business opportunities, sustainability and social equity (Iolov, 2023).

Within the context of tourism, the concept of EC can encompass either a local community residing in a specific tourist destination united by a collective focus on energy-related issues or a collective of entities connected by a shared interest or involvement in energy matters pertaining to the tourism sector (hotels and accommodation providers, local tourism authorities, environmental organizations, technology providers or other entities of a complex tourism ecosystem).

In the context of tourism, several specifics can influence the adoption of EC, especially when comparing it to the general context of their use. These may include a pronounced seasonal variability and peak loads influencing energy demand, rising environmental concerns in the tourism industry and the level of its focus on local economic impact, resource availability and specifics of tourism infrastructure, specific types of tourism stakeholder collaboration, different regulatory environments for diverse sets of entities in the tourism ecosystem or tourists’ environmental attitude–behavior gap. In those areas, ECs can offer various advantages. Typical benefits for members of ECs include stable prices (independence from energy markets), savings within the community and contributing to climate goals. Apart from greening the business as a primary argument for tourism, EC could create opportunities for regional value creation (Skiljan, 2022), having a strong potential to influence destination competitiveness and becoming an integral part of governing tourism destinations, green social innovation and tourism branding (Stankov et al., 2023). Thus, this perspective article investigates the potential for ECs to serve as an integral component within the tourism domain, drawing arguments for their inclusion from the potential benefits they offer to local communities and anticipating their functions for tourism providers and destinations.

We used a narrative literature review approach to evaluate and incorporate an extensive range of literature focusing on EC. A narrative literature review was strategically adopted to effectively support our perspective (Vada et al., 2023) by providing an understanding of ECs, offering context in tourism and engaging readers. In this approach, we curated pertinent research articles from the Scopus database that aligned with the search criteria “energy community” encompassing various academic disciplines. In addition, we included EU-related sources, with a primary focus on the Clean Energy Package of 2019 (European Commission, 2023c) and the EU Energy community repository (European Commission, 2023d), alongside relevant online articles. The research, conducted in 2023, analyzed 171 documents published over the past decade, spanning from 2014 to 2023. Subsequently, we constructed a cohesive narrative that highlighted the benefits of EC and proposed potential functions within the tourism domain (see Figure 1).

When drawing upon the accrued benefits, the paper anticipates an expansion in the functions of ECs within the realm of tourism as the awareness of renewable and sustainable practices, and experiential activities are growing areas of interest for tourists (Dolnicar, 2023).

**Benefits of energy communities in the tourism domain**

Overall, the three main benefit areas of ECs are financial, social and environmental (Campos and Marín-González, 2020) (see Figure 1). While promoting local resilience, ECs can lower costs and increase income by selling excess energy. Beyond fostering citizen
engagement, this approach may empower residents, enhance social cohesion and nurture a sense of belonging, leading to the preservation of cultural resources. Such preservation becomes increasingly meaningful, as cultural values escalate in tandem with the development of tourism. ECs also contribute to climate goals by taking action on energy and fostering acceptance of renewable energy (European Commission, 2023a, 2023b).

The tourism sector could greatly benefit from ECs, both at the individual tourism provider level and the destination level. Individual tourism providers, whether members of local communities (e.g. rural households) or small and medium tourism enterprises or attractions (e.g. museums), all could share in the existing benefits. Furthermore, ECs can contribute to regional development and innovation by creating new jobs and business opportunities (European Commission, 2023b). For instance, the initiative from Dingle Peninsula, Ireland, seeks to drive community participation exclusively for the EC in the tourism sector. The community comes together to achieve a set of energy goals by working closely with sustainable energy authorities (Dingle Hub, 2022).

Potential functions of energy communities in the tourism domain

The proposition engenders a new avenue for the exploration of additional functionalities within ECs concerning tourism providers and destinations (refer to Figure 1).

ECs can be seen as a functional tool of destination social responsibility, fueling green social innovation and contributing to green destination governance. For instance, The New York Times highlights places around the globe based on principles of environmental and social sustainability (The New York Times, 2022). Naples, Italy, was featured, thanks to their REC demonstrating how the community is engaged in mitigating climate change by providing free, clean electricity to families living below the poverty line (Fondazione Con Il Sud, 2022). ECs can use their resources to strengthen intercommunity collaboration and eventually create groups of ECs, enhancing their ability to achieve goals (Van Summeren et al., 2021) in line with destination development goals and green destination governance.

Furthermore, creating functional smart approaches for experience co-creation with ECs could potentially strengthen destination competitiveness by leading to new value creation with green practices (Casais and Ferreira, 2023; Viglia and Acuti, 2022). These actions could function as a strong component for destination branding through green tourism. Destinations can use ECs to enhance their environmental reputation and attract more eco-conscious tourists who value sustainability and low-carbon practices to specific
destinations. For example, the Plymouth EC (UK), a charity and social enterprise aiming to empower the community to create a fair, affordable and zero-carbon energy system, is promoted as an equal initiative alongside other more common green initiatives, such as green transportation, plastic-free initiatives and low-carbon tourism activities on the Visit Plymouth website (Visit Plymouth, 2023).

Green practices used by ECs could function as a driver for tourists’ learning (Baniya et al., 2022), adding additional value for the co-creation of their experiences. Broader benefits of ECs provide opportunities to apply innovative destination branding approaches and function as additional environmental communication layers, including climate change-related messaging (Stankov et al., 2023).

Concluding remarks

ECs in Europe are recognized as a powerful approach to citizen engagement in promoting a transition to green energy. This paradigm shift transforms how individuals relate to energy and offers numerous benefits to local communities, including opportunities for business development in line with the goals of the green energy transition, particularly in the tourism domain.

This perspective highlights the pressing need for research to guide the development and management of ECs in tourism for the importance of better understanding political road maps, engaging stakeholders, analyzing case studies and monitoring and evaluating their impact.

An analogous but fragmented pattern to promote community-based renewable energy projects and installations is becoming increasingly evident on a global scale, encompassing countries such as the USA (Grimley et al., 2022), South Korea (Woo et al., 2019), Australia (Kirsch et al., 2015), Canada and others (REN Renewables, 2022). Although ECs are already present in Japan’s energy sector, their growth necessitates proper endorsement and regulatory structure. Sokolowski (2021) suggested that the EU has effectively developed a model that could be applied in Japan with appropriate modifications. Within this context, we posit that our adoption of the European perspective lends a considerable breadth to our research of this subject matter, encompassing both theoretical knowledge and practical experiences in the realm of ECs community implementation, with a specific emphasis on its relevance to the tourism sector. We view this perspective as a potential catalyst, providing a motivational bedrock upon which to initiate further research endeavors and adaptations in diverse geographical contexts.

The integration of ECs with tourism practices holds the potential to facilitate the adoption of political agendas more effectively (Hall et al., 2022). Integration also provides a framework for critical assessment of their impact within the context of the real economy.

Further academic inquiry is warranted to investigate the genuine intentions and aspirations of ECs within the realm of tourism, pertaining to their willingness to actively participate in addressing the environmental implications of mass tourism. It is crucial to assess the potential effectiveness of these communities in fostering sustainable practices within the tourism sector, discerning whether their involvement represents a sincere endeavor or merely serves as another manifestation of greenwashing.

References


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