

## **Strategi Edukasi dan Peningkatan Kesadaran Energi Terbarukan untuk Generasi Muda Melalui Pemanfaatan Platform Media Sosial secara Efektif**

### **Strategies for Educating and Raising Renewable Energy Awareness for the Young Generation through Effective Utilization of Social Media Platforms**

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#### **Abstrak**

Energi terbarukan adalah energi yang berasal dari sumber-sumber alami yang dapat diperbarui secara berkelanjutan, seperti sinar matahari, angin, dan air. Pengabdian masyarakat melalui kampanye media sosial yang menggunakan fitur Reels di Instagram bertujuan meningkatkan kesadaran generasi muda mengenai pentingnya energi terbarukan. Kampanye ini berfokus pada lima poin utama: proses pembentukan batubara, dampak negatif batubara, emisi gas dan kerusakan lingkungan dari industri batubara, potensi sumber energi terbarukan seperti matahari, angin, dan air, serta keunggulan energi terbarukan. Video kampanye tersebut berhasil menarik perhatian dengan 8.524 tayangan dan 691 likes. Analisis komentar menunjukkan bahwa lebih dari 90% respons berasal dari generasi muda, menunjukkan efektivitas pesan kampanye dalam menjangkau target audiens. Respon positif ini menandakan bahwa generasi muda dapat menerima dan memahami informasi yang disampaikan. Keberhasilan ini menunjukkan potensi besar media sosial sebagai platform edukatif. Penggunaan Instagram sebagai alat kampanye terbukti efektif dalam menyebarkan informasi ilmiah dan mendorong perubahan perilaku. Kampanye ini diharapkan dapat meningkatkan adopsi energi terbarukan di kalangan generasi muda. Hasil ini juga mendukung transisi menuju penggunaan energi yang lebih berkelanjutan dan ramah lingkungan.

**Kata kunci:** energi terbarukan, media sosial, generasi muda, Instagram Reels, edukasi lingkungan

#### **Abstract**

Renewable energy is derived from naturally occurring sources like sunshine, wind, and water that can be replenished over time. Using Instagram's Reels feature, a social media campaign focused on community service seeks to educate the next generation about the value of renewable energy sources. The process of coal formation, the drawbacks of coal, gas emissions and environmental harm caused by the coal industry, the potential of renewable energy sources including solar, wind, and water, and the benefits of renewable energy were the five key focuses of the campaign. With 8,524 views and 691 likes, the advertising video attracted notice. More than 90% of the comments, according to an analysis of the remarks, were from younger people, proving that the campaign's message was successful in reaching its target market. This affirmative reaction suggests that the younger generation is able to comprehend and accept the information provided. This achievement demonstrates social media's enormous potential as a teaching tool. Instagram has shown to be a successful marketing tool for spreading scientific knowledge and promoting behavior change. It is anticipated that the campaign would encourage younger people to use more renewable energy. The shift to more ecologically friendly and sustainable energy consumption is also supported by these findings.

**Keywords:** renewable energy, social media, young generation, Instagram Reels, environmental education

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## 1. INTRODUCTION

The largest archipelago in the world, Indonesia, has significant difficulties in managing its energy resources. An over reliance on fossil fuels, such as coal, gas, and oil, puts the environment at risk in addition to increasing the likelihood of energy shortages. Given the current global energy crisis, Indonesia needs to find more environmentally friendly alternatives. With its wealth of natural resources, renewable energy sources like solar, wind, and water power present Indonesia with a very promising alternative [1]–[3]. In addition to lowering greenhouse gas emissions and slowing down climate change, the deployment of renewable energy can boost national energy security and encourage more environmentally friendly economic growth [4]–[6].

The younger generation in Indonesia is crucial to the country's shift to renewable energy. They are change agents with a tremendous deal of potential to embrace and advance the use of renewable energy. Their attitudes about renewable energy and way of life have a big impact for good change. Educating the younger generation about renewable energy is very important since they are more likely to be receptive to innovation and new technologies [7]. Educating people about the value of renewable energy can inspire them to adopt sustainable behaviors in the future.

Young people's everyday lives now revolve around social media. Social media sites like Facebook, Instagram, TikTok, Twitter, and TikTok are frequently utilized as information and educational resources in addition to being used for fun. Young people can be effectively educated through

social media by consuming interesting and simple-to-understand content. Numerous efforts have demonstrated the efficacy of social media as a platform for education and social campaigns, demonstrating that positive action can be encouraged and a large audience may be reached by disseminating information through social media.

Nonetheless, there are a number of issues with this educational initiative about renewable energy. One of the biggest problems is that the younger generation does not understand the value of renewable energy. Patterns of energy consumption that are not sustainable or efficient are nevertheless common. Education initiatives are also less successful when people have limited access to engaging and simple-to-understand information about renewable energy. Therefore, in order to raise young people's knowledge and comprehension of renewable energy, an inventive and successful educational plan is required.

Programs for educating people about renewable energy are highly relevant and urgent [8]. Programs for educating people about renewable energy are now necessary to overcome the world energy problem and its detrimental effects on the environment. Social media may be an effective tool for education and social campaigns, as demonstrated by the numerous instances of prosperous renewable energy initiatives on various social media platforms. In light of this, the initiative for educating young people about renewable energy using social media seeks to increase awareness and knowledge of the value of renewable energy among this generation. This

initiative also seeks to encourage a green economy, influence the attitudes and behaviors of the younger generation toward the usage of renewable energy, and help accomplish the Sustainable Development Goals (SDGs).

## 2. METHODS

The Reels feature on Instagram was used to carry out the educational campaign and increase younger generation awareness of renewable energy through social media platforms [9]. The campaign was divided into four main stages: concept and planning, video creation, editing and post-production, distribution, and evaluation. The campaign was conceptualized and planned during the Concept and Planning stage, which also required creating a video

production plan and key messaging based on preliminary research to understand young people's perspectives on renewable energy. Using influencers to spread the word, educational and entertaining videos about the advantages of renewable energy and the role of the younger generation were created during the Video Creation stage, following the script. The video footage was then edited and pertinent visual and sound elements were added throughout the editing and post-production stages to guarantee excellent quality prior to release. At last, the Distribution and Evaluation phase encompassed sharing the video on Instagram by utilizing pertinent hashtags and working with influencers. Additionally, video performance metrics like views, likes, comments, and shares were tracked to evaluate the campaign's efficacy and the reaction of the audience.

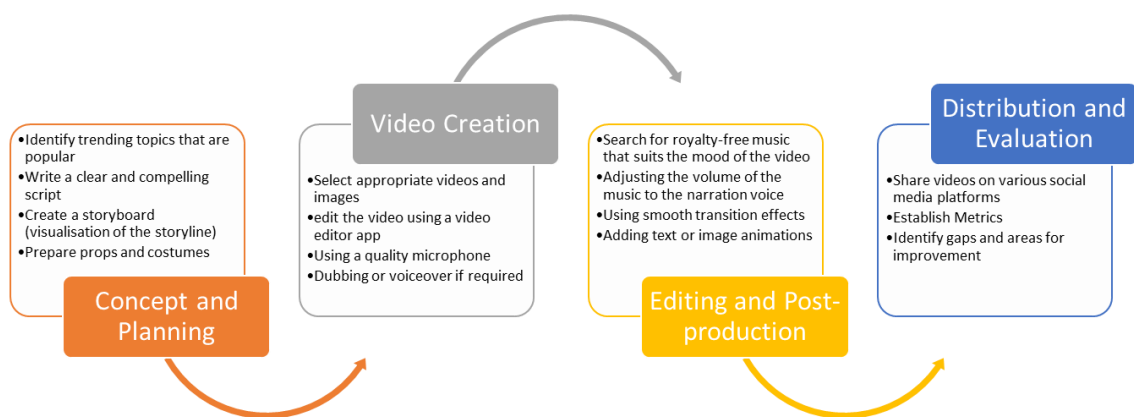


figure 1. Schematic of service activity procedures

Instagram by utilizing pertinent hashtags and working with influencers. Additionally, video performance metrics like views, likes, comments, and shares were tracked to evaluate the campaign's efficacy and the reaction of the audience, areas, featured information on the advantages of electric

cars, their good effects on the environment, and how younger people are embracing this technology. In order to deliver the message in the video, influencers and prominent celebrities were also involved.

After the video is created, post-production and editing are done to make sure it is of the highest caliber. Before publication, the editing team adds sound and visual effects, cuts the video material, and makes sure everything is in working order. After that, the videos were shared on Instagram, where a larger audience was attained by utilizing the Reels function. Utilizing pertinent hashtags, collaborating with influencers, and communicating with followers via direct messages and comments to promote conversation and engagement were all part of the distribution and evaluation process. In order to evaluate the campaign, video performance indicators including views, likes, comments, and shares were tracked.

### **3. RESULTS AND DISCUSSION**

Five key themes are arranged in the ad video to give viewers thorough and interesting information about renewable energy. The method of coal formation and its application is the first topic brought up. The formation of coal, which is derived from biological matter that has been trapped and compressed over millions of years, is explained in the movie along with its extensive use as a traditional energy source. This explanation gives the audience crucial background information that enables them to comprehend why coal is still widely utilized in spite of all of its disadvantages.

The detrimental effects of burning coal as a source of energy are covered in the second point of the film. The film describes the several types of pollutants that come from burning coal, such as sulfur dioxide (SO<sub>2</sub>), carbon dioxide (CO<sub>2</sub>), and tiny particles

that are bad for people's health. These effects include the significant contribution of coal to global climate change as well as health issues like respiratory and cardiac disorders.

The third point emphasizes the harm that the coal sector does to the environment and the gas emissions it produces. The amount of environmental harm brought about by the mining and burning of coal is shown in the video through data and graphics. Among the many detrimental effects of the coal industry are soil erosion, water pollution, and the destruction of natural habitats. The audience is urged to comprehend the extent of the detrimental effects of relying too much on coal.

Potential renewable energy sources including sunshine, wind, and water are introduced in the fourth point. The film illustrates how these energy sources can be used responsibly by showing examples of the technology that are employed, including hydroelectric power plants, wind turbines, and solar panels. Indonesia has a lot of natural resources, which make it an ideal area to produce renewable energy.

The benefits of using renewable energy sources over fossil fuels are emphasized in the fifth point. The film illustrates the advantages of renewable energy for the economy and environment through case studies and comparative data. These advantages include lower operating costs, more energy security, and a decrease in greenhouse gas emissions. Additionally, the film highlights how the use of renewable energy may boost sustainable economic growth and generate new jobs.

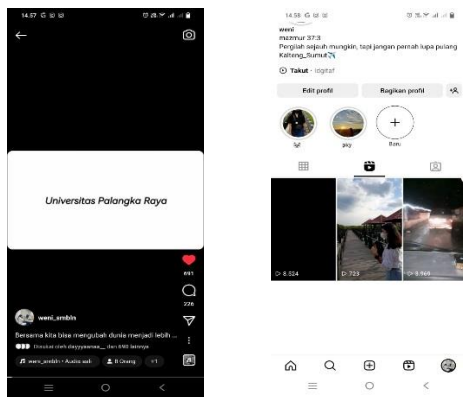


figure 2. videos posted on intagram

The marketing video has gotten 8,524 views, 691 likes, and several encouraging comments on Instagram since it was posted. The substantial quantity of views suggests that the video has been able to draw in a sizable viewership. The substantial quantity of likes suggests that the viewers found the video material engaging and well-received.

Analysis of the comments revealed that over 90% of them were from young accounts, which could be distinguished by the language and terminology they frequently used. This shows that the younger generation, who was the video campaign's major target audience, was successfully reached. Young audiences' enthusiastic reactions suggest that the video's message is clear to them and pertinent to them.



figure 3. Video comment on intagram

The usefulness of social media campaigns in increasing awareness about the significance of renewable energy is demonstrated by the success of this film in garnering attention and positive responses from the younger generation. It turned out that using Instagram—particularly the Reels feature—was the best way to expand one's audience and boost interaction. Along with spreading knowledge, the campaign got people talking and involved in the conversation.

The movie is anticipated to have a high level of interaction and help the younger generation adopt renewable energy sources more frequently. The viewers' engaged participation in the conversation demonstrates that they are not only open to learning new knowledge but also motivated to act on it. This contributes to Indonesia's future being cleaner and greener by facilitating the country's shift to more environmentally friendly and sustainable energy sources.

#### 4. CONCLUSION

Engaging in community service via an Instagram Reels campaign has proven to be a highly effective way to educate the younger generation about the value of renewable energy. With 8,524 views and 691 likes, the campaign video that explained how coal is formed, the drawbacks of using it, the possibilities of renewable energy sources, and the benefits of renewable energy was a success. Over 90% of the comments, according to an examination of the analysis, were from accounts belonging to younger generations,

suggesting that the educational message had effectively reached and influenced the intended target demographic. This achievement demonstrates that social media may effectively disseminate

scientific knowledge and promote behavior modification, which in turn helps the younger generation make the shift to more ecologically friendly and sustainable energy consumption.

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