

LCBB5005-Project Management

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Introduction

Due of its potential to generate a large quantity of low-carbon electricity, the Hinkley Point C project is a major initiative for the UK's energy industry. There have been many doubts regarding the project's practicality and its potential contribution to the country's energy mix since it was initially proposed. In this report, it will give a deprived of where things are with Hinkley Point C right now, and the study will provide honest opinion on whether or not individual should count on the project to transform the UK's energy landscape for the better. The study will give an objective look at the project, including all of its merits and flaws. To begin this evaluation, the study will look at the history, aims, and stakeholders of the Hinkley Point C project. It will evaluate the project's current status in terms of schedule, construction, and budget. The potential contributions to energy demands in the UK, environmental impacts, and economic and social ramifications of the Hinkley Point C project will be assessed in the next section. Finally, based on evaluation of the project's development and potential, the study will provide opinion on whether or not the Hinkley Point C project can be deemed a success for the future energy sector of the UK.

Body

Current progress of project

A nuclear power plant named Hinkley Point C is now being built in Somerset, England. EDF Energy, the developer, started building in 2016, and they plan to finish by 2025. The enormous expense of the project and the hazards involved with nuclear energy has made it controversial. The project is now moving along steadily, but with some delays. Because of the COVID-19 pandemic as well as additional complications, EDF Energy reported in December 2020 that the construction of the project will be delayed by up to 15 months. It is projected that the delay will add several billion dollars to the total cost of the construction. Despite this delay, work has proceeded (Smyth et al., 2018). The framework for each of the nuclear reactors under construction has been finished, and now all the reactor pressure chambers, steam generators, and coolant pumps must be installed on the nuclear island.

The remaining major parts of the power plant, besides to the nuclear territory, are now being construction. The rotating hall, which will contain the electricity-generating turbines, and the system for cooling, which will utilise water drawn from the river Bristol to regulate the reactors and produce steam, are also part of this (Daniel and Daniel, 2019). The project is struggling due in part to a lack of qualified staff. Concerns have been raised that not enough personnel with the necessary expertise will be available to build the power plant by the deadline. EDF Energy has initiated a training programme to improve the abilities of local employees and guarantee a sufficient number of qualified individuals to complete the project.

The project's price tag is another concern. Since the venture was initially suggested, its anticipated cost has skyrocketed, and some worry that the final tally will be considerably higher. Yet the company EDF Energy has assured its customers that the construction endeavour is still on track financially and that it will be completed. The UK government that recognises the importance of nuclear power in the country's energy balance, has given the project its blessing despite these obstacles (Castor et al., 2020). It is estimated that the power plant would produce roughly 3.2GW of electricity, which is enough to provide around 6 million households.



Figure 1: The reactor at Hinkley Point C

The Hinkley Point C construction is moving along steadily despite experiencing some delays. Even though the UK government regards nuclear power as a crucial element of the energy mix in the nation, the proposal has been met with opposition owing to its expense and possible hazards connected with nuclear energy. Despite ongoing worries about a lack of experienced personnel and the possibility of cost overruns, EDF Energy has reaffirmed its commitment to finishing the project on schedule and under budget.

Success or a failure for the future energy sector

If Hinkley Point C project is successful in the long run is an open question; it has the potential to significantly impact the UK energy economy.

- One positive aspect of the project is that it would contribute to the country's energy security by producing enough electricity to provide almost 6 million households. The initiative helps the United Kingdom move towards its objective of an economy with fewer greenhouse gases and lower carbon emissions (Boström-Einarsson et al., 2020). Although nuclear power has its detractors, it is an environmentally friendly energy option

that may help a nation achieve its climate objectives by reducing its dependency on fossil fuels.

- There have been several obstacles and debates surrounding the Hinkley Point C project. Since the project was initially suggested, its price tag has full, and now there are worries that it might end up costing much more than originally anticipated. Some have argued that the high expense of the project means that cheaper alternatives to satisfying the country's energy demands should be explored.
- Concerns have also been raised concerning the project's security. There is always the chance of an accident happening while using nuclear power, and there have already been mishaps at various nuclear power facilities throughout the globe (Gielen et al., 2019). The Hinkley Point C development has been planned with security and stability in mind, yet accidents may still happen.
- The scarcity of qualified labour is another problem. Concerns have been raised that not enough personnel with the necessary expertise will be available to build the power plant by the deadline. This might cause even more time and money to be wasted (Papadis and Tsatsaronis, 2020).
- To what extent the Hinkley Point C programme succeeds or fails for the future of the UK's energy industry is uncertain in light of these problems and concerns. The project might have a major impact on the energy industry and aid the government in achieving its climate targets, but it also confronts substantial obstacles and criticism.



Figure 2: Dredging mud in the Bristol Channel

The power plant's impact on the country's energy mix, the eventual cost of the project, and the security and reliability of the facility all figure into the project's ultimate achievement or failure (Maulidia et al., 2019). Different sources of renewable energy, such as solar and wind energy, might turn out to be less expensive and acceptable substitute to nuclear energy in the long run, therefore their success is equally important. There will be far-reaching effects, both in the UK and internationally, regardless of whether or not the Hinkley Point C development is completed successfully.

Justification for stance

The budget is an important factor to think about while assessing the project. Since the project was initially suggested, its anticipated cost has skyrocketed, and there are now worries that its final price would be considerably higher. Some have stated concerns that the project's large price tag is excessive, and that the country's energy demands may be met via more cost-efficient means (Widya Yudha and Tjahjono, 2019) But nuclear power is an environmentally friendly energy option that may assist the nation fulfil its climate objectives by reducing its dependence on fossil fuels. Nuclear power has an inexpensive operational cost after the facility is up and running, despite the large cost of construction. Especially if the cost of petroleum and coal were to rise, this may make nuclear power economically viable in the long run.

The construction's safety and integrity should also be taken into account. While nuclear power does carry some danger, it is essential to remember that nuclear power facilities are built with protection and reliability in mind. Like all nuclear power plants, the Hinkley Point C development will be subject to rigorous rules and safety requirements to guarantee its safe and secure operation.

The electricity produced by the Hinkley Point C construction is anticipated to be substantial, providing sufficient electricity for around 6 million households. The aim of the UK administration to reduce carbon emissions and move towards an economy with low carbon footprints makes this a matter of paramount importance.

But there are also major obstacles and debate around the project, such as a lack of available experienced labourers and the possibility of price increases (Napp et al., 2019). These problems might cause the project to go over budget and beyond schedule, reducing its chances of success.

Many criteria, such as the project's eventual cost, its security and stability, and how it will contribute to the UK's power mix, will determine whether or not the Hinkley Point C development is deemed to be beneficial for the developing energy industry in the nation. Other renewable sources of energy, such as wind and solar power, could turn out to be less expensive and attainable substitute to nuclear power in the long run, therefore their success is equally important.

For the United Kingdom's energy industry and its progress towards its climate targets, the Hinkley Point C programme holds great promise. However, there are also many obstacles and debates around it because of its expensive price tag, security fears, and lack of available specialised labour. It will be crucial to track the project's development and assess how well it serves the country's future energy demands, since these criteria will determine the project's ultimate achievement or failure.

Lesson learnt form the project

The construction of Hinkley Point C has been a difficult and time-consuming endeavour, but it has also yielded important insights. Future energy initiatives may benefit from these insights and have a higher likelihood of success as a result.

- The government as well as the project's developers have been criticised for their lack of straightforward and consistent communication, which has contributed to the

controversy surrounding the Hinkley Point C project. Gaining public support and balancing the demands of many stakeholders requires clear and consistent communication (Dyrda and Morrison, 2021).

- A experienced labour force is crucial. The Hinkley Point C project has struggled greatly due to a lack of trained personnel, which underscores the need of having a capable workforce to support massive energy projects. The government may be able to overcome this challenge and guarantee it has the educated workforce necessary to support future energy projects if it invests in education and training.
- The assessment and control of costs is crucial, as shown by the fact that the Hinkley Point C project has been criticised for its inflated price tag. In order to keep projects financially viable and provide value for money, precise cost estimate and cost management are essential.
- Due to the inherent dangers of nuclear energy, planning and managing nuclear power plants with safety and security as top priorities is very crucial. To guarantee the safe and secure operation of the Hinkley Point C project, it has been subject to strict rules and safety requirements.
- The value of working together and forming alliances, The government, the project's developers, and other interested parties have worked together on the Hinkley Point C project. This exemplifies the value of teamwork and cooperation in completing massive energy projects and solving difficult problems.
- Although the Hinkley Point C project has the potential to significantly contribute to the country's energy mix, it is necessary to diversify energy sources in order to avoid dependency on any one source of energy (Bingham, 2021). This has the potential to boost energy security and mitigate the effects of supply outages and price fluctuations.
- The Hinkley Point C project is going to continue to be examined and supervised to ensure that it is providing good value for money, adhering to all applicable safety and security regulations, and helping to satisfy the nation's energy demands. Large-scale energy projects can only stay successful and relevant in the long run via constant examination and improvement.

There are a number of important takeaways from the Hinkley Point C project that might influence future energy investments in the UK and abroad. These guidelines stress the value of open lines of communication, a competent staff, reliable cost estimates, a secure environment, teamwork and partnerships, a wide range of energy sources, regular review, and

the pursuit of progress. Future energy projects may improve their chances of success by adopting these lessons and delivering environmentally conscious and cost-effective solutions to the world's energy demands.

Recommendation

Prioritising safety and security in nuclear power operations and cooperating closely with regulators to achieve and surpass safety requirements are essential for ensuring safety and security. Additionally, it is critical to diversify energy sources to lessen dependency on any one source of energy and to guarantee energy security. Finally, it is crucial to evaluate and monitor the project on a regular basis to guarantee that it is cost-effective and secure.

With these matter resolved and a driven approach to project management in place Hinkley Point C has the prospective to be a game-changer for the UK's energy industry in the years to come. Between these feasible advantages is a decreased need for fossil fuels, new energy-related employment opportunities and progress towards climate targets. To assurance the project's success although it is necessary that all parties involved work jointly to handle any matter that may arise.

Conclusion

The completion of the Hinkley Point C project will be a major step forward for the UK's energy infrastructure. It has the potential to offer a stable, low-carbon source of electricity and contribute to the country's climate objectives, but it also confronts several problems, such as cost overruns, delays, and worries about safety and environmental damage. The study desires that the government and the project developers adopt a proactive approach to managing the Hinkley Point C project to maximise its advantages and manage its issues, based on evaluation of the project's present development and potential. In order to get support for the project and lessen any worries people may have about it, the study has advice that stakeholders put an emphasis on improving communication and working together. It is also essential to fund training programmes that produce a competent labour force capable of backing up massive energy installations.

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