

PROJECT MANAGEMENT

REFLECTION

ASSIGNMENT 2

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Introduction

This assignment is written based on the first assignment that was submitted and I will write a reflection based on the information that I have and other that I will collect and write on my opinion using critical analyse by providing information about the HINCKLEY POWER PLANT C, in order to consider if the project is a failure or a success for the future energy sector of United Kingdom, based on the current progress. The decision to build Hinkley Point C, a nuclear power plant in Somerset, England, was first proposed in the 1980s. Since then, the project has been subject to numerous delays, setbacks, and changes in ownership and policy.(Watt,2017)

In 2008, the UK government announced plans to build a new generation of nuclear power plants to address concerns over energy security and climate change. Hinkley Point C was identified as one of the sites for this new nuclear capacity, and in 2010, EDF Energy was chosen to develop and operate the plant.

However, the project was delayed due to a number of factors, including difficulties in securing financing and changes in government policy. In 2013, the government announced a new deal with EDF Energy, which included a guaranteed price for the electricity generated by the plant for 35 years.

Firstly this Hinckley Point C it is nuclear power station newly first made in the United Kingdom over 20 years, its construction will provide a less-carbon electricity for more than six million households also will help in

bringing over benefits to the economy of United Kingdom, by providing jobs . Hinkley Point C will make a substantial contribution to the UK's drive to decrease carbon emissions, marking a critical milestone in the revitalization of our nuclear power sector. The power produced by its two EPR reactors will offset 9 million tonnes of CO₂ emissions each year, or 600 million tonnes over the course of its 60-year lifespan. (EDF, 2016)

I believe that it is important to consider the risks and benefits of any technology, including nuclear power. While the aspiration to replace aging nuclear power plants is understandable, it is crucial to choose a design that is safe, reliable, and cost-effective. The concerns about the EPR design model are valid, as there have been issues with its implementation in the past. However, it is also important to note that advancements and improvements in technology can occur over time. It is possible that the EPR design may be improved and made more effective in the future. (Howell, 2023)

Reflection

I think that the nuclear reactor is indeed a controversial and new design known as the EPR (European Pressurized Reactor), which has faced construction problems and delays in its development. The EPR has been built in France and Finland, but both projects have experienced significant cost overruns and delays. It has been assessed that some experts have raised concerns about the EPR's design, particularly regarding its complex control systems and safety features. Additionally, the reactor's use of a new type of fuel and the potential for accidents involving the fuel have also been cited as concerns (Watt, 2017)

Project Scope Management

Hinkley Point C's commitment on combating climate change implies that it will have a big and positive influence on the natural world over its 60-year lifespan. Sustainability and preservation of the environment are also important aspects of the construction process. New approaches are being deployed, while a team of environmental professionals work to improve local ecosystems and biodiversity, allowing nature to thrive on ground that was previously heavily used for agriculture(EDF, 2016)

EPRs (European Pressurised Water Reactors) are a kind of Pressurised Water Reactor (PWR). The UK EPRs that will be constructed at Hinkley Point C represent a significant advancement over earlier PWR designs, putting them among the safest and fastest civilian nuclear power reactors ever conceived. The UK EPR design is a big step forward to sustainability. When compared to current water reactors, it is intended to use less elements and generate nearly a third smaller durable radioactive material. (EDF, 2016)

Critical Incidents

The impact of COVID -19

I believe that EDF, a French energy company, has announced that the first reactor unit at Hinkley Point C in Somerset is expected to begin operation in June 2027, which is one year behind schedule, it has affected the estimated cost of the project which is now between £25bn and £26bn, when on the beginning of the project estimated cost was around 18bn. (Lawson, 2022)

Cost Management

Hinkley Point C is an ongoing nuclear power plant construction in Somerset, UK, which faces several critical factors. These include the high cost of £22.5

billion, making it one of the most expensive construction projects globally, which has raised concerns over its affordability and the impact on electricity bills for consumers.(EDF,2016)

It is mentioned that delay is caused by cost as the expenses went high, only few weeks after Boris Johnson declared that the UK will build one new nuclear reactor every year. During a visit to Hartlepool's nuclear power station, he said nuclear power was "absolutely critical to weaning us off fossil fuels, including Russian oil and gas." In the United Kingdom, six nuclear power facilities generate around 16% of the country's electricity. EDF has also seen increased expenses at its Flamanville 3 facility in France, which is running more than a decade behind schedule. The three stations will be decommissioned by March 2024, and all but one will be decommissioned by 2028 (Lawson, 2022)

Time Managemant

There have also been significant delays in the project, which could lead to additional costs and further strain on the country's energy infrastructure. Safety is a critical factor given the potential hazards associated with nuclear power plants, and the Hinkley Point C project has undergone extensive safety assessments, with measures in place to mitigate potential risks.(EDF,2016)

It has been assessed that EDF assured that the delay and increased costs of Hinkley Point C would not impact British consumers or taxpayers, as EDF and its junior partner in the project, China's CGN, will bear the additional expenses. As a fun fact it has been predicted in 2007 by Vincent de Rivaz, the former chief of EDF, that by Christmas in 2017, “turkeys would be cooked” using atomic power from new reactors at Hinkley, however the project was eventually approved in 2016, and it needs still more time until the project will be fully accomplished (Lawson, 2022). In my opinion the cost of the project was affected a lot by the inflation that came up after pandemic, they were not prepared to face such a situation and this has brought the significant delays, as

there was a point in pandemic when the borders we're closed, and the suppliers they couldn't deliver on time what was necessary for the project ,also cost of delivery has changed after pandemic.

Project Human Resources Management

Government restrictions

One of the most challenging moments was when pandemic came as even nowadays, Covid -19 still feels hard as it has impacted many businesses and human lives. It has been stated by EDF stated that the pandemic necessitated a decrease in the amount of employees authorised on the site, resulting in the loss of more than 500,000 days of crucial work in 2020 and 2021. In a statement sent by Thursday evening, Stuart Crooks, the manager of Hinkley Point C, he said that everyone will experience the huge impact of COVID-19, that will delay the projects over two years. To reflect on the past two years most of the companies were forced to reduce labour force , and this happened as well in Hinkley Point C project ,when on-site workforce was decreased from over 5,000 to around 1,500 people. The project delay it happened because of the virus that has infected workers and also they had to make new operational plan and to reduce number of workers under the usual site numbers, as per new measures of infection- prevention (Lawson, 2022). I know that most of the people they caught the virus and at some point they had to isolate as per Government restrictions in order to protect themselves and loved ones.

Project Risk Management

Pollution

The decision to pursue a certain design for a nuclear power plant should not be made in isolation from the broader national industrial strategy and advances. It is important to consider how the choice of technology for a nuclear power plant fits into the overall plan for industrial development and progress.

Ultimately, the decision to replace aging nuclear power plants and pursue nuclear energy as a source of power requires careful consideration of the risks and benefits, as well as an assessment of the available technologies and their potential for improvement. (Howell, 2023)

The water discharge activity permit for Hinkley Point C originally included an Acoustic Fish Deterrent (AFD) as part of the cooling water system, which was later replaced by other measures. The operator wants to remove the conditions related to the AFD, and after consulting with relevant organizations, it was decided that the cooling water intake would be regulated through the Development Consent Order. The proposed decision is to grant the permit variation with limits and conditions that ensure protection for people and the environment during normal operation, however I think that in the future there will be pollution that can impact species and habitat. (Environment Agency, 2023)

Conditions of the permit variation for the discharge of dead and damaged fish and invertebrates from the fish recovery and return system at Hinkley Point C is crucial to minimize the potential impacts on the ecology and water quality of the surrounding areas, including the identified European sites and SSSIs. It is important to continue monitoring the discharge to ensure that it remains within the authorized limits and does not cause any adverse effects on the environment. (Environment Agency, 2023)

Project communication management

An important factor of the success of the Hinkley Point C project requires careful planning, management, and monitoring of its critical factors to minimize risks and ensure that it delivers the expected benefits to the UK's energy infrastructure. In my opinion, one way communication is supposed to be facilitated through regular public consultations and meetings with stakeholders. These meetings will provide an opportunity for the project team to address concerns and answer questions, as well as to receive feedback on the project's design and construction, as this is very important. (EDF,2016)

Project stakeholder management

Communication is crucial in the construction of the Hinkley Point C nuclear power plant in Somerset, UK. The project involves multiple stakeholders, including the government, investors, contractors, and local communities.

Effective communication is essential to ensure that all parties are aware of the project's progress, challenges, and potential impacts (EDF,2016)

the primary developer and operator at Hinkley Point C project is EDF Energy, that is responsible of projects finance, managing the process of construction and to operate the power plant after project achievement. The government has assured the power plant that its electricity cost will be covered for 35 years, which I believe is hard to keep such a promises as there are lots of critical factors going against the project.

Project Quality Management

According to McIntyre (2018), the design inspectors who were responsible for monitoring the building and manufacturing activities at Hinkley Point C noted that the quality management systems did not meet some standards. Additionally, during an investigation in France, nuclear regulatory inspectors uncovered some fraudulent documents last year. To continue the construction work at the site, EDF has implemented supply chain systems.

This suggest that the quality management systems for the design, building, and manufacturing activities of Hinkley Point C were deemed inadequate by the design inspectors. Also, the nuclear regulations inspection uncovered some false documents in France last year during their investigation. EDF has established supply chain systems to facilitate the ongoing construction work at the power plant. (McIntyre,2018)

I believe that the quality will be affected as the project is delaying ,there may not be same stakeholders /providers that they can assure the products have the essential quality.

Project Procurement Management

An implication of this are important as the procurement process for the Hinkley Point C project involved a complex and lengthy process that spanned several years. The project was led by EDF Energy, a French energy company, in partnership with China General Nuclear Power Corporation (CGN).

The first step in the procurement process was the selection of the reactor technology. EDF and CGN chose to use the European Pressurized Reactor (EPR), a third-generation nuclear reactor design that has been used in other nuclear power plants around the world.

After selecting the technology, EDF and CGN began the process of selecting suppliers and contractors to work on the project. This involved a rigorous pre-qualification process, where potential suppliers and contractors were evaluated based on their technical capabilities, financial stability, and experience working on large-scale construction projects.(EDF,2021)

An implication of this are important as any decision regarding the project's future will depend on careful consideration and analysis by experts and stakeholders. It is crucial to consider technical feasibility, economic viability, environmental impact, and public opinion to ensure that any decision-making process takes all critical factors into account.

Recommendations

Together the Hinkley Point C project could have both advantages and disadvantages. One advantage is that nuclear power is a reliable and relatively low-carbon source of electricity, which could help mitigate climate change. The project could also create thousands of jobs during construction and operation, which could have positive economic effects. However, there are also significant risks and challenges associated with nuclear power, including safety concerns, high costs, and potential environmental impacts. There are also debates about the role of nuclear power in the UK's energy mix and whether there are alternative energy sources that could be developed.(Hinckley, n.d.)

Conclusion

While the project has faced criticism due to its high cost and delays in construction, it is still ongoing and is expected to provide a significant portion of the UK's electricity needs once it is completed (EDF,2016).

To conclude I would say as per arguments and my understanding about the Project Hinckley Power Plant C ,my concerns about the environmental issues that will come across in future are very critical as they will impact whole world. I believe that this is going to be a failure project as there are many issues that already exist and more are yet to come.

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