



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

Everyone's Smart University

Project (Spring 2021)

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Section

Master

Date

Thursday

18 / 03 / 2021.

Course Code

(PMG506)

Advanced project Management

Instructions:

- اخر موعد للتسليم هو يوم الخميس 2021-05-20 في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجليزية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الانجليزية.
- يتم تسليم المشروع في صيغة ملف pdf مع الالتزام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Literature Review، طريقة البحث Methodology، النتائج والمناقشة Results and Discussion، وأخيراً المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب الالتزام بـ Theme موحد كما يلي:
- حجم الخط 12.
- نوع الخط Arial.
- لون الخط أسود.
- المسافة بين الأسطر line spacing 1.5
- عدد صفحات البحث (لا يقل عن ثلاث صفحات ولا يزيد عن ست صفحات).

Instructor's Name: Eng. Amaal Aburumman

Project:

You are required to document your role in administering a project. The project may be set in a business, social, sporting, or family environment but must be of a significant size and scale. If you do not have an actual project to write about you may complete the project hypothetically. **This report will be between three to six pages in length.** This is a significant research project.

Your report must address each of the following issues:

1. Identify and describe the purpose, scope, and objectives of the project. **Display this information using an appropriate tool.**
2. Describe how the team is given an outline of the project.
3. Describe the strategies that are going to be set up to maintain communication with the team members.
4. Describe the tools that are going to be used to monitor the goals, time frames or milestones.
5. Identify project milestones and activities. **Display this information using an appropriate tool.**
6. Create a budget and link the costs to the key milestones for a project.
7. Describe how you are going to divide tasks and resources amongst a project team. **Display this information using an appropriate tool.**
8. Briefly describe how the progress will be monitored.
9. How are current project records maintained? Who has responsibility for this? provide some recommendations on how this process could be improved.
10. **Describe the current procedure for finalizing projects. Create your own procedure and identify how you will evaluate the success of the project.**
11. Legislation that may affect the project including health and safety, and anti-discrimination legislation.

Best of luck...

المشروع:

مطلوب منك توثيق دورك في إدارة مشروع. قد يتم تعيين المشروع في بيئة تجارية أو اجتماعية أو رياضية أو عائلية ولكن يجب أن يكون بحجم مناسب. إذا لم يكن لديك مشروع فعلي لتكتب عنه ، فيمكنك إكمال المشروع افتراضياً. سيتمكنون هذا التقرير من ثلاث إلى ست صفحات .

يجب أن يعالج تقريرك كل من القضايا التالية:

1. تحديد ووصف الغرض والنطاق والأهداف من المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
2. صف كيف يتم إعطاء الفريق مخططاً تفصيلياً للمشروع.
3. وصف الاستراتيجيات التي سيتم وضعها للحفاظ على التواصل مع أعضاء الفريق.
4. صف الأدوات التي سيتم استخدامها لرصد الأهداف أو الأطر الزمنية أو المعالم.
5. تحديد معالم المشروع والأنشطة. اعرض هذه المعلومات باستخدام أداة مناسبة.
6. إنشاء ميزانية وربط التكاليف بالمعالم الرئيسية للمشروع.
7. صف كيف ستقوم بتقسيم المهام والموارد بين فريق المشروع. اعرض هذه المعلومات باستخدام أداة مناسبة.
8. صف بإيجاز كيف سيتم رصد التقدم.
9. كيف يتم الاحتفاظ بسجلات المشروع الحالية؟ من المسؤول عن هذا؟ تقديم بعض التوصيات حول كيفية تحسين هذه العملية.
10. وصف الإجراءات الحالي لإنهاء المشاريع. قم بإنشاء الإجراء الخاص بك وحدد كيفية تقييم نجاح المشروع.
11. التشريعات التي قد تؤثر على المشروع بما في ذلك الصحة والسلامة ، وتشريعات مكافحة التمييز.

مع تمنياتي بالتوفيق..

The Role of Project Manager in Closing Phase: Case of Construction of Power Substation project

1. Introduction

Due to the urban and economic development, different projects which vary in size, scale, resources are required. Therefore, many projects are executed to satisfy countries, nations, and societies' needs. Project management is necessary to achieve progress, as economic progress is not only measured by the size of resources but rather due to the ability to manage these resources effectively by competent administrators. Consequently, enterprises adopt different ways to enhance their business performance (Bajaj, Garg, & Sethi, 2018). Nevertheless, Taylor (2017) stated that although solving quality issues differs from various programs, the goal is to create high-performance products or services, a high-quality level that meets management and customer expectations remain the same. The status quo of the Arab nations is great proof of that, despite the abundance of resources. However, the Arab world suffers from the absence of economic integration, and on the contrary, Japan, which lacks resources among the most economically advanced nations of the world.

Saudi Electricity Company (SEC) has been encountering massive economic growth that leads SEC to launch several initiatives that have a positive impact on the company's operation and performance, herewith improving power supply reliability, enhancing the level of service, and promotes the company financial, technical, and administrative efficiency (SEC, 2014). The rapid demand for electrical power in Saudi Arabia requires large investments with huge funding to beat the arisen challenges which are mainly associated with the aggressive demand for electricity. SEC strives to provide a reliable power supply around Saudi Arabia. Therefore, SEC is implementing mega projects that enhance and enforce the electrical system: generation, transmission, and distribution. Hence, this research presents a scientific procedure for performing the closing process group and how a project manager controls the process for constructing substations project closure.

2. Research objective

The increased demand for electricity requires SEC to expand its network and increase its capacity to meet the kingdom requirement from the electricity. The scope power substation includes the civil work of constructing a 115/13.8 kV power substation, equipment procurement, as per the design drawing and specifications This includes obtaining all required Rights of Way from the concerned authorities/agencies before starting the construction activities. Also, carrying out all testing and commissioning before substation energization and ensure a successful project closure. This research is mainly to identify the SEC project manager in managing the closure phase for the construction of a power substation project.

3. Literature Review

3.1 Project Management

The rapid growth of Project management has been remarkably used in organizations to gain a competitive advantage in the marketplace and to achieve their objectives. Nowadays, the growth in the use of projects has been mainly in the area of projects to internal organizations such as constructing a power substation to meet the rapid demand. Project management provides an organization with powerful tools that improve its ability to plan, implement, and control its activities as well as how it utilizes its people and resources. The project management institute (PMI) defines project management as “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.” Meredith & Mantel (2012) explain the PMI definition as “means, techniques, and concepts used to run a project and achieve its objectives.” In other words, it attempts to get a project is done effectively with a minimum cost.

3.2 Project Closing

Project closure is “the process of finalizing all activities for the project, phase, or contract” (Meredith & Mantel, 2012). It is a significant and necessary process in all projects, mainly in mega projects. Project closure practice finalizes the project activity within the entire project phases to formally close the project. It is to assess the final status

of the project, ensure completion, and obtain lessons learned and what are the best practices to be applied to the upcoming projects. During the closing phase, mega-projects such as constructing a power substation often encounter many problems involving lack of budget, shortage of required resources, disputes, and claims (Zohrehvandi, Khalilzadeh, Hajizadeh, & Cheraghi, 2017). Nevertheless, the closing practices in multi-phase projects may be applied at different stages of the project. In other words, applying the closing practices close out only portions of the project scope and associated activities relevant to that portion of the project.

4. Research Methodology

The current study is conducted based on previous case studies and the literature and provides an answer to the question: how the project closure for constructing a power station be managed and controlled by the project manager? Meredith & Mantel (2012) defines a project manager as “a person responsible for supervising a systems project from initiation to conclusion.” In SEC power substations construction projects; the project manager with extensive experience is responsible for the preparation, planning, and implementation of SEC 115/3.8 kV power substation projects. Also, other responsibilities include the quality, budget, schedule, and reporting of the project. In other words, the project manager should be actively collaborating with project owners, drawing up reports, budget forecasts, and schedules, attending construction meetings, placing orders under framework agreements.

Following are descriptions of the closing process of the construction of the power substation projects.

4.1 Transition planning

The power substation project transition from the execution phase to stakeholder's acceptance involves techniques in the project initiation planning phases. Chang, Hatcher, & Kim (2013) examined how advanced scheduling tools and the Integrated Master Schedule are used as a temporal boundary object at different stages of power station projects. The project manager is obliged to coordinate initial planning to develop the plan and allocate required documents for project transition to the stakeholder.

4.2 Project cycle/ acceptance

In SEC power station projects, the substation energization starts after project completion. Once the project is completed, the transition process is directed to the facility's operations (Zohrehvandi et al., 2017). The project manager is accountable to closely cooperate with the contractor to conduct further tests and commissioning operations as per the project planned documents.

4.3 Project closure

The power substation project will be closed when the contractor carries out all project-related activities and is accepted by the project owner. The closure commences when all physical, contractual, and financial operations are completed (Zohrehvandi et al., 2017). In the case of a power substation project in SEC, the contractor will be granted 12 months deadline to prepare the project cost report. The project cost report covers all cumulative costs of the project up until the completion date including estimated costs of the remaining tasks and activities.

4.3.1 Closure confirmation statement

In less than a month from the closing phase confirmation in the substation project, the closure confirmation statement is sent to the financial and assessment manager. Furthermore, the closure statement must be approved and signed by the project manager, the project organization representatives, the contract manager, and the financial managers (Zohrehvandi et al., 2017).

4.3.2. Project closure report

The project manager prepares a pre-closure report and sends it to the board of managers in addition to the financial manager (Zohrehvandi et al., 2017). This report comprises all the accounts statements of the contracts along with the completed project activities.

5. Discussion

This study is conducted on a power substation project as a case study. In the closing phase, the project manager must ensure that the owner's (SEC) technical project

requirements are implemented in compliance with the relevant guidelines and regulations under all safety regulations.

Below are four stages of a power substation project closure:

5.1 Physical Closure:

Physical closure in the power substation project involves conducting the remaining tasks after SEC acceptance. Zohrehvandi et al. (2017) emphasized that the project manager finalizes a list of essential activities for approving and closing the project and requests project closure confirmation from the concerned department within SEC.

5.2 Contract closure:

Contract closure in SEC power substation project involves project contracts and sub-contracts. According to Zohrehvandi et al. (2017); for this task to be accomplished, each project's contracts, as well as sub-contracts, must be determined and their status needs to be well clarified. Hence, contract value in addition to its terms and conditions have to be specified.

5.3 Legal Closure:

The primary closure part of the SEC power substation project is related to site legal issues. Such a type of closure depends largely on the nature of the project. In other words, environmental issues lead to litigation. Therefore, having thorough regulations and accepting responsibility for the environment and compensation for damages caused by constructional activities can be quite beneficial (Zohrehvandi et al., 2017).

5.4 Financial Closure:

In the SEC power substation project, both physical and financial closures are performed in parallel. Nevertheless, Zohrehvandi et al. (2017) believe that a successful financial closure is achieved if only physical closure has successfully been done. In the financial closure phase, unfulfilled commitments, superfluous fund sources need to be identified and allocated to other projects, if needed.

6. Recommendation for Proper Closing and Project Evaluation

During the project life cycle of a project; time, cost, and scope should be assessed continuously and acceptable variance re-defined. Newton (2017) suggested that basic questions be answered by a project manager while reviewing a project: What will a project manager continue to do? What went well and what will be done again on the next project? What does a project manager end? What went wrong and what will you do differently in the next project? What will a project manager begin to do? What do you the next project that does not this Project which you have to understand later would be good for you? Is there anything else to remember that a project manager can use the next time he finds out?

On this basis, Newton (2017) recommended various closing process actions for a successful evaluation. (1) Evaluation should be conducted with the presence of key personnel in the project and ensure proper communication. (2) The purpose of the evaluation, scope, constraints, and methods should be identified. (3) The presence of strong leadership to effectively manage the evaluation. (4) It should be determined to shape the evaluation reports. Documents such as reports and invoices, etc.) and data should be collected at all stages and should be added to the final evaluation report. (5) Last corrections and additions should be made with the last recommendations of the project owner. (6) Evaluation should be done cooperatively.

7. Conclusion

It is concluded that Project Management is a powerful field of work as it consists of several different project management tools and techniques that lead to effective analysis and control as a project as needed while keeping a keen eye on various dependencies and significant influences to attain the anticipated results that will benefit a business and positively affect business metrics. Project management tools and techniques define the workflow and how the project will take shape but it is always up to the tools to execute those techniques and help in getting the desired results. Therefore, exploring the right tools and techniques that lead to a successful project is important. Implementing a closing process group enables meeting the project's deadline with minimum deviation. The official declaration "project goals successfully achieved, final

acceptance issued" concludes the project closure phase and the SEC Power Substation project. In summary, following a systematic process during the entire project life ensure a proper project closure. The project manager must ensure that all contractual obligations have been fulfilled and all long-term warranties or equipment deliveries are finalized and clearly communicated and documented to the management. Besides, it is necessary to ensure that all formal documentation related to customer acceptance as required by the contract is properly executed. The project manager should provide certification to the contractor acknowledging the completion of all contractual obligations and releasing the company from further obligations, except those under the terms of guaranty or warranty, if any.

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