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## Business Case – MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Assigned Members:** Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn Parent, Taqi Zaidi

**Date Last Modified:** January 24, 2024

**Version:** 1.00

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## Introduction / Background

UltraSol Energy Solutions' (UES) information technology and procedures are about to undergo a transformation thanks to the efforts of MAJTeQ consulting group. Our objective is for technology to support a more transparent, responsive organization that can better serve its stakeholders and partners.

MAJTeQ is exploring a variety of systems designs which are aimed at integrating solutions to UES's production environment, including corporate data security, network architecture, data governance, server/client deployment, and other relevant enterprise systems.

To reduce risks and Challenges, we will evaluate expectations, alternatives/changes, project stages, and financial investments by developing a business case & applying a disciplined approach. Aiming to provide guidance on the right course of action that will define the corporate values of the company.

## Business Objectives

### Project Objectives

Over the next four months, we want to establish a planning framework that prioritizes operational, developmental, and strategic plans to ensure UES's sustained success and support for our overarching goals. Our approach consists of four steps:

- To make expectations and responsibilities clearer.
- To set collaborative goals and targets.
- To give all staff members and stakeholders at all management level performance reviews and while sharing findings.
- To foster team collaboration and involvement to finish the project on schedule and within the financial budgets.
- Identifying existing strengths that can be leveraged throughout the transformation phase.

## **Technical Objectives**

Technical objective is meant to show us how to translate our ideas into realistic, scalable business potential. applying the business viewpoint, which examines how the concept may be implemented by taking factors such as organizational & business changes, technological solutions, and ecosystem effects.

- When implemented correctly, the road map offers useful, business-driven guidelines for locating, creating, and delivering new services and technologies.
- ensure our concepts are viable and worthy of being pushed further.
- Ensuring the innovation process stays creative and allows for the unlimited sharing of ideas.
- Executing the design & thinking about each step flawlessly whereby refining our concepts during the brainstorming and proofreading stages.

## **Current Situation and Problem/Opportunity Statement**

### **Current /Problems**

- We are tasked with Interconnecting 4 different sites.
- The current system infrastructure is dilapidated & in need of overhaul.
- Replacing old network infrastructure E.g. (Wiring, phone systems, etc.)
- Implementation of new cloud system that integrates with AD environments.
- With the Acquiring of new building, the need for a new network implementing, deployment (LAN, WLAN, Security) of those sites. While upgrading headquarters.

### **Opportunity**

- The goal of implementing new offered technologies for the organization.

- The need for a comprehensive overhaul to meet the demands of the modern business environment.
- The challenge is to create a robust and secure IT foundation that not only integrates seamlessly with UES's existing structures but also facilitates the transition to a more efficient and digitally driven operational model.
- This project will not only enhance the security and efficiency of operations but also contribute to the successful implementation of their prefabricated solar and wind-based power generation systems in the market.

## Critical Assumption and Constraints

The critical constraints we faced with this project are as follow:

- We are optimistic that the clients, together with their collaborators, will successfully complete their assigned tasks and deliver the project to us within the agreed time frame. which will allow us to start work on our phase of the upgrade.
- We are assuming that MAJTeQ would have ALL required and proper physical access to all building areas, that is essential for us complementing the jobs.
- We are hoping to have minimal impact on the overall production of the organization, where having a temporary/ backup system in place so workers can still execute their tasks.
- Ensure from a Budget perspective the solution cannot cost over \$500k.

## Analysis of Option and Recommendation

The purpose of options analysis is Identifying that the current business environment needs a huge upgrade of the IT infrastructure, our general plan to tackle the question "what/which is the best choice?".

It would be a system that first *identifies the Options*:

**Where is the change needed?**

- Network system, Server system & Application.

**What approach should we take?**

- Should we adopt a do-nothing approach?
- Should we adopt a do-minimum approach?
- Should we adopt a do-something approach?

**Would the system be valuable to the Project?**

- Would the solution generate money or profit the business.
- Would the solution offer short-term or long-term opportunities.

## Would the solution be Feasibility with the scope of work?

- Do we have the resources to pursue this option?
- How much is such an option going to cost to implement?
- How much is such an option going to cost to maintain?

## Recommendation

- We have conducted surveys through our stakeholders to get ideas on some use cases. What are user suggestions on new systems?
- We will be releasing demos & training a sample size of user, while gathering feedback.
- We may put things to a vote if the solutions are within marginal difference.

## Budget Estimate and Financial Analysis

See Appendix (Budget: Preliminary)

## Schedule Estimate

The schedule for our project has been carefully designed to guarantee that every stage goes forward smoothly and effectively. We have allotted enough time, accounting for dependencies and potential obstacles, for every phase of the project, from inception to conclusion. This strategy enables us to keep to a reasonable timetable while remaining adaptable enough to consider any unanticipated events.

See Project Charter: (Milestones) for detailed breakdown.

Our group is dedicated to sticking to this timetable, and we have faith in our capacity to complete the job by the deadlines. Proactive management and ongoing oversight are essential to guaranteeing the project's success within the projected time range.

## Potential Risks

**Integration Complexity and Technical Challenges:** The project involves integrating various systems across multiple sites. This presents a risk of integration complexity, potentially leading to delays or failure to achieve seamless interoperability. Technical challenges may arise in aligning new systems with the existing IT infrastructure, which could impact project timelines and budget.

**Budget Overruns:** With a budget constraint of \$500k, there's a risk of cost overruns. Unforeseen expenses in hardware, software, or labor costs could push the project beyond its financial limit. This risk is compounded by the extensive overhaul of the IT infrastructure.

**Schedule Delays :** The project has a well-defined schedule, but delays could occur due to unexpected technical issues, delays in procurement, or challenges in coordinating across multiple sites. Schedule delays could impact the operational efficiency of UES and potentially increase costs.

**Dependency on External Parties and Vendors :** The project's success depends on the timely and quality output from external parties and vendors. Any delay or subpar performance from these parties could significantly impact the project timeline and outcomes.

**Change Management Risks:** Implementing a new IT infrastructure will require a significant change in how employees at UES work. Resistance to change, inadequate training, or poor adoption of the new system could undermine the project's objectives.

**Security Vulnerabilities:** With the introduction of new network infrastructure and cloud systems, there's a risk of introducing new security vulnerabilities. This risk is critical, considering the sensitive nature of the data that UES might be handling.

**Operational Disruption During Transition:** The project aims to minimize impact on UES's production during the upgrade. However, there's always a risk of operational disruption, which could affect UES's business operations and revenue.

**Compliance and Regulatory Risks:** Upgrading IT infrastructure could involve compliance with various regulations, especially concerning data security and privacy. Non-compliance could lead to legal issues and reputation damage.

**Data Migration and Integrity:** The project involves migrating data to new systems. There's a risk of data loss or corruption during this process, which could have severe consequences for UES's business operations.

**Resource Allocation and Skill Gaps:** Effective implementation requires adequate and skilled resources. There's a risk of skill gaps or resource shortages, particularly in areas like cloud integration and network security, which could hinder project progress.

## Conclusion

As we reach the culmination of the business case for the transformational IT infrastructure project at UltraSol Energy Solutions, it is evident that the venture, spearheaded by MAJTeQ Consulting Group, is poised to significantly enhance UES's operational efficiency, security, and overall technological capability.

This project, aligning with the strategic objectives of UES, is not just an IT overhaul but a crucial step towards positioning the company at the forefront of modern, efficient, and secure business operations. The comprehensive plan encompasses the integration of cutting-edge network

infrastructure, cloud systems, and data governance across multiple sites, thereby laying a robust foundation for UES's future growth and innovation.

The detailed budget and schedule estimates reflect a well-thought-out strategy, ensuring that the project remains financially feasible and on track. The proactive approach in addressing potential risks and challenges signifies a commitment to diligence and excellence. This foresight is essential in navigating the complexities of such a transformable project.

Moreover, the focus on change management and stakeholder involvement is commendable. By emphasizing training, collaboration, and communication, MAJTeQ ensures that the transition is not just a technical upgrade but also a cultural shift towards greater efficiency and teamwork within UES.



# Project Charter - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 26, 2024

**Version:** 1.00

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**Brief Project Summary:** Merger of existing Solar-Tec infrastructure into UltraSol environment.

**Project Approval Date:** January 8th, 2024

**Project Sponsor:** Northern Alberta Institute of Technology

**Project Manager:** Chris Redford

**Project Start Date:** January 15th, 2024

**Projected Finish Date:** April 27th, 2024

**Budget Estimate:** 1 million CAD

## Initial Scope

The project involves migrating the server infrastructure from Windows 2012 to present-day standards, preserving Active Directory for business continuity. Server migration to a virtualized platform, data security enhancements, and potential cloud integration are key components. Network infrastructure upgrades, IP addressing schemes, and security measures are outlined for wired and wireless networks. Specific requirements for each building, telecommunications/data rooms, power, cooling, and secured/public Wi-Fi considerations are addressed, especially segregated hazardous environments that are hostile to computer systems.

## Project Deliverables

### 1. Server Environment:

- Migrate from Windows 2012 to present-day standards.
- Preserve and migrate Active Directory for business continuity.

### 2. Thin Client Solutions:

- Implement thin clients for industrial bays and clean rooms.
- Address environmental challenges in manufacturing areas.

### 3. Server Virtualization:

- Migrate servers to a virtualized platform.
- Preserve AD user objects and NTFS permissions.

### 4. Data Security:

- Add new users, enhance data security.

- Decide on cloud integration with ADDS.

#### **5. Desktop Replacement:**

- Replace all user desktops uniformly.
- Deploy according to blueprints.

#### **6. Wired Infrastructure:**

- Upgrade HQ wired infrastructure to present-day standards.
- Consider budget constraints.

#### **7. IP Addressing and Network Design:**

- Develop IP addressing schemes for offices, bays, and common areas.
- Segregate subnets for security and firewall OT networks.

#### **8. Wireless Infrastructure:**

- Implement Wi-Fi in all buildings.
- Determine access point placement and coverage zones.

#### **9. Network Security:**

- Design and implement network security measures.
- Deploy firewalls, routers, switches as needed.

#### **10. CCTV System:**

- Plan and deploy IP-based security cameras in all buildings.
- Address infrastructure, IP, and security needs.

## **Milestones**

### **Planning and Strategy (Month 0-1)**

- Develop a comprehensive project plan, including timelines and resource allocation.
- Define strategies for server environment migration, thin client implementation, and network transformation.

### **Infrastructure Implementation (Month 1-2)**

- Complete server environment migration to present-day standards.
- Successfully implement thin client solutions in industrial bays and clean rooms.
- Achieve data security enhancements and implement cloud integration.

### **Network Implementation (Month 2)**

- Finalize the upgrade of wired infrastructure to current standards.
- Implement IP addressing schemes and subnet segregation for security and autonomy.
- Deploy Wi-Fi infrastructure in all buildings with coverage zones.

- Design and implement network security measures.

## Operational Implementation (Month 2-4)

- Complete replacement of all user desktops across the organization.
- Deploy IP-based security camera systems and dedicated storage solutions.
- Ensure comprehensive documentation and conduct training sessions.
- Validate and test disaster recovery plans for data rooms and critical infrastructure.

## Main Project Success Criteria

Seamlessly integrate and deploy a new IT infrastructure for UltraSol Energy Solutions.

## Team Roles and Responsibilities

Role	Name	Position	Sign-Off
Project Manager	Quinn	Project Supervision	
IT Infrastructure Specialist	Aidan	Technical Project Management	
Security Analyst	Matt	Cybersecurity Implementation	
IT Hardware Deployment Specialist	Jamie	Hardware Deployment Specialist	
Network Architect and Innovations Specialist	Taqi	Network Innovation Specialist	

This document was modified using ChatGPT for clarity purposes.

# Team Contract - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 24, 2024

**Version:** 1.00

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## Code of Conduct

As a project team, we commit to:

- Work diligently to accomplish project goals.
- Punctuality in all team-related activities.
- Foster a respectful and inclusive environment, refraining from any form of bullying.
- Adhere to the rubric provided by the instructors.

## Participation

We agree to:

- Conduct regular meetings to discuss daily plans and updates from the previous day.
- Notify the team in advance when unable to attend a meeting.

## Communication & Feedback

We pledge to:

- Maintain a daily progress log on Proof Hub, ensuring readability.
  - Explore Proof Hub plugins for automated workload reports.
- Adhere to the Gantt chart, addressing any deviations promptly through discussion and action.

## Problem Solving

We commit to:





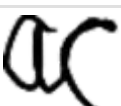
- Collaboratively finding solutions to challenges.
- Documenting problems in our ticketing system.
- Resolving conflicts with the assistance of a mediator if necessary.
  - In cases where no resolution is achieved, involve an instructor.

# Meeting Guidelines

We will:

- Develop and follow a meeting agenda.
  - Discuss schedules and gather team input on topics.
- Appoint a note-taker to document meeting discussions.
  - Summarize daily notes into an easily understandable TLDR.
- Limit meetings to a maximum of 5-10 minutes, extendable by team vote.
- Publish the meetings on Proof Hub in the "Discussions" category.

## Project Team Members Names and Sign-off

Name	Role	Signature	Date
Taqi Zaidi	Network Architect and Innovations Specialist		Feb. 09. 2024
Quinn Parent	Project Manager		Feb. 09. 2024
Matthew Telford	Security Analyst		Feb. 09. 2024
Jamie Lewis	IT Hardware Deployment Specialist		Feb. 09. 2024
Aidan Cadieux	IT Infrastructure Specialist		Feb. 09. 2024

(This document was modified using ChatGPT for clarity purposes.)

# Scope Statement - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 26, 2024

**Version:** 1.00

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## Project Justification

NetEng Technical Solutions (NTS) is leading a project to integrate UltraSol Energy Solutions (UES) with recently acquired Solar-Tec. The aim is to establish a Proof of Concept (PoC) demonstrating the feasibility of a technology solution for the merged entities. With Solar-Tec's outdated IT infrastructure, the project is crucial for overhauling and securing UES's operations. The goal of the project is to demonstrate a seamless merger of companies and IT systems.

## Product Requirements

1. Integration of IT Infrastructure: Merge the IT systems of UES and Solar-Tec.
2. Proof of Concept: Develop and demonstrate a PoC that showcases the feasibility of the technology solution for the merged entities.
3. Infrastructure Overhaul: Update and secure the outdated IT infrastructure of Solar-Tec.

## Project Management-related Deliverables

- Business case
- Project Charter
- Team contract,
- Scope statement
- WBS, schedule
- Budget Report
- Management Plan
- Communication Plan
- Status report Template
- Milestone report Template
- Change Control Plan
- Change Request Template
- Risk Management Plan
- Client Acceptance Form

- Final project presentation
- Final project report
- Lessons-learned report

## **Technical-Related Deliverables**

- Technical research reports
- Design and planning documents
- Configuration data
- Hardware Specifications

## **Project Success Criteria**

The key to success for this project would be a seamless merger of the two companies and their IT systems, minimizing disruption to ongoing operations. Demonstration of a Proof of Concept providing clear and concise implementation of a updated and efficient IT system, including maintenance and disaster recovery plans.

This document was modified using ChatGPT for clarity purposes.

# Work Breakdown Structure / Gantt Chart



Task	01/29	02/05	02/12	02/19	02/26	03/04	03/11	03/18	03/25	04/01	04/08	04/15	04/22	04/29
Server	Aidan Cadieux													
RAID and Storage Solution	Aidan Cadieux													
Team has RAID configured and can articulate the ...														
Team has documented the RAID implementation an...														
Team has integrated a solution for Data HA and h...														
Disaster Mitigation	Aidan Cadieux													
Team can demonstrate a fully integrated and autom...														
Clustering Technologies	Matthew Telford													
Hypervisor configured for failover clustering														
Demonstrate HA in a way that shows VMs would ...														
AD-DS Implementation	Jamie Lewis													
AD-DS implementation is exemplary, the Team has o...														
The Team has introduced Sites or can articulate w...														
AD-DS Maintenance and Troubleshooting	Jamie Lewis													
Team has automated the process of forcing replic...														
Team has a documented process for handling ter...														
Core Network Services	Quinn Parent, Taqi Zaidi													
Network services configured to best practices														
Monitoring and alerting systems where appropriate														
Incorporate DMZ, public and cloud services where...														
Security, OS patches and updates are centrally ma...														
Group Policy Objects	Jamie Lewis													
Team has an elaborate array of GPOs in play, appr...														
It is obvious that the Team has thought out how G...														
Team can articulate the highlights of their GPO so...														
Administrative Privileges / Account Delegation	Jamie Lewis													
Team has introduced multiple levels of administra...														
Can demonstrate the delegation of authority throu...														
Clearly demonstrates the Principle of Least Privile...														
Virtual Server Maintenance / Remote Administration	Quinn Parent, Taqi Zaidi													
Team has individual admin accounts for each tea...														
Admin tools incorporate cloud admin in addition t...														
Team has multiple remote admin options and two...														
Remote Management & Monitoring (RMM) has be...														
Scripting / Automation	Aidan Cadieux													
Team has adapted scripts from other classes and...														
Client / Server Management	Quinn Parent, Taqi Zaidi													
Teams client and software deployment is fully inte...														
Server Management integrates all cloud services, ...														
Security and OS patches and updates are centrally...														
Team has integrated a Server Monitoring / RMM s...														
Security Standard Practices	Quinn Parent, Taqi Zaidi													
Team has implemented Certificate Authority / AD...														
Centrally managed Virus and Malware Protection i...														
Software firewalls are in place and teams can sho...														
Cloud Identity / Authorization for hybrid environ...														
VOIP / Video Communications	Jamie Lewis, Matthew Telford													

<input type="radio"/> Team is implementing a cloud based integrated p...			
<input type="radio"/> Team has either a VOIP or Video Conference Solu...			
<input type="radio"/> Users can communicate inter, intrasite, external a...			
<input type="radio"/> Thin Client/ VDI	Thin Client/ VDI	Taqi Zaidi	
<input type="radio"/> Team has an integrated secure solution			
<input type="radio"/> BYOD Solution + Mobile Workforce	BYOD Solution + Mobile Workforce	Jamie Lewis, Taqi Zaidi	
<input type="radio"/> Authentication is AD and MFA integrated. Devices...			
<input type="radio"/> Mobile users (corporate VM image) can connect t...			
<input type="radio"/> Centralized remote user management allows Adm...			
<input type="radio"/> User Experience	User Experience	Taqi Zaidi	
<input type="radio"/> Client productivity software including email is enti...			
<input type="radio"/> Printing is setup for each test user to be able to pr...			
<input type="radio"/> End users must have self-service support such as...			
<input type="radio"/> Data Storage	Data Storage	Aidan Cadieux	
<input type="radio"/> Data storage utilizes local or cloud technologies a...			
<input type="radio"/> Team can demonstrate several well designed exa...			
<input type="radio"/> Team has implemented auditing / data integrity m...			
<input type="radio"/> Collaboration / Intranet	Collaboration / Intranet	Taqi Zaidi	
<input type="radio"/> Team can demonstrate a secure collaboration too...			
<input type="radio"/> There are sites / sections for each location - HQ/P...			
<input type="radio"/> Collaboration solution is cloud based			
<input type="radio"/> Intranet site has authenticated access only to a se...			
<input type="radio"/> Team has a publically(within ISP Network) access...			
<input checked="" type="radio"/> Helpdesk / Ticketing Solution	Helpdesk / Ticketing Solution	Matthew Telford, Quinn Parent	
<input checked="" type="radio"/> A helpdesk / ticketing solution is installed			
<input type="radio"/> Team has 13+ well documented instances of issu...			
<input type="radio"/> Closed tickets are created, maintained, and closed...			
<input type="radio"/> Solution has self-service support (eg. self-service ...			
<input type="radio"/> Install / Configure Server Hypervisors	40%	Aidan Cadieux, Quinn Parent	
<input type="radio"/> Migrate / Update Old DC / FS VMs	80%	Jamie Lewis	
<input checked="" type="radio"/> Milestone Demo	<input checked="" type="radio"/> Milestone Demo	Barett Olson	
Network		Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...	
<input type="radio"/> Switch Management	Switch Management	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...	
<input type="radio"/> VLAN configuration, Optimization of STP (RSTP, M...			
<input type="radio"/> Recommended but not limited to the following: Po...			
<input type="radio"/> Routing Management	Routing Management	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...	
<input type="radio"/> Intervlan routing, Dynamic routing, Default route re...			
<input type="radio"/> Recommended but not limited to the following: Se...			
<input type="radio"/> Firewall management	Firewall management	Quinn Parent	
<input type="radio"/> VDOM			
<input type="radio"/> DMZ			
<input type="radio"/> VPN setup (remote site and remote client)			
<input type="radio"/> UTM implementation			
<input type="radio"/> Granular customization of UTM(policies/profiles)			
<input type="radio"/> Security zones,			
<input type="radio"/> IDS/IPS implementation			
<input type="radio"/> Strong authentication/encryption for VPN services			
<input type="radio"/> SD-WAN			
<input type="radio"/> Redundancy	Redundancy	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...	
<input type="radio"/> Etherchannels			

<input type="radio"/>	High availability FW/SW		
<input type="radio"/>	FHRP with interface tracking/SLA		
<input type="radio"/>	Policy-based routing/SLA		
<input type="radio"/>	SD-WAN		
<input type="radio"/>	Gateway redundancy (HSRP, VRRP, GLBP)		
<input type="radio"/>	Voice Services (If Network Based)	Voice Services (If Network Based)	Jamie Lewis, Matthew Telford
<input type="radio"/>	Internal calling (Intra and Intersite), Quality of serv...		
<input type="radio"/>	Cloud based VoIP/Integrated communications ser...		
<input type="radio"/>	Wireless	Wireless	Jamie Lewis
<input type="radio"/>	Controller-based APs, strong authentication/encry...		
<input type="radio"/>	CA signed certificates with RADIUS authentication...		
<input type="radio"/>	Network monitoring and management	Monitoring and management	Taqi Zaidi
<input type="radio"/>	Detailed/Customized SNMP monitoring, Alerting, ...		
<input type="radio"/>	Scripts/APIs(for automation), SNMPv3, SNMP tra...		
<input type="radio"/>	IPv6	IPv6	Matthew Telford
<input type="radio"/>	DHCPv6/DNSv6		
<input type="radio"/>	IPv6 Dynamic Routing, Dual-stack or Address fam...		
<input type="radio"/>	Config backups	Config backups	Aidan Cadieux, Taqi Zaidi
<input type="radio"/>	Automatic/Scheduled Secured backup and restore...		
<input type="radio"/>	NTP(If Network Based)		
<input type="radio"/>	Basic Cabeling	70%	Jamie Lewis, Matthew Telford, Quinn Parent, Taqi Zai...
<input type="radio"/>	Housekeeping	Helping	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...
<input type="radio"/>	Banners, MOTD, hostnames, port descriptions.		
<input type="radio"/>	SSH enabled, enable passwords, vty passwords.		
<input type="radio"/>	Recommended but not limited to the following: 80...		
<input checked="" type="checkbox"/>	Complete Network	Complete Network	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...
Documentation			Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...
<input checked="" type="checkbox"/>	Network Diagram Draft	Taqi Zaidi	
<input checked="" type="checkbox"/>	Business Case	Jamie Lewis	
<input checked="" type="checkbox"/>	Project Charter	Matthew Telford	
<input checked="" type="checkbox"/>	Final Network Diagram	100% Taqi Zaidi	
<input checked="" type="checkbox"/>	Team Contract	Quinn Parent	
<input checked="" type="checkbox"/>	Scope Statement (Initial)	Matthew Telford	
<input checked="" type="checkbox"/>	Work Breakdown Structure	100% Aidan Cadieux, Quinn Parent	
<input checked="" type="checkbox"/>	Gantt Chart (Schedule)	Aidan Cadieux, Quinn Parent	
<input checked="" type="checkbox"/>	Assign due dates	100% Aidan Cadieux	
<input checked="" type="checkbox"/>	Budget (Preliminary)	100% Aidan Cadieux	
<input checked="" type="checkbox"/>	Management Plan	100% Quinn Parent	
<input checked="" type="checkbox"/>	Communication Management Plan	100% Quinn Parent	
<input checked="" type="checkbox"/>	Quality Management Plan	100% Jamie Lewis	
<input checked="" type="checkbox"/>	Milestones Report Template	100% Matthew Telford	
<input checked="" type="checkbox"/>	Status Report Template	100% Matthew Telford	
<input checked="" type="checkbox"/>	Change Control Plan	100% Matthew Telford, Quinn Parent	
<input checked="" type="checkbox"/>	Change Request Template	100% Quinn Parent	
<input checked="" type="checkbox"/>	Risk Management Plan	100% Matthew Telford	
<input checked="" type="checkbox"/>	Client Acceptance Form	100% Taqi Zaidi	
<input type="radio"/>	Housekeeping Switch Template	90% Quinn Parent	
<input type="radio"/>	IP / Vlan Scheme	90% Jamie Lewis, Matthew Telford, Taqi Zaidi	
<input type="radio"/>	Network Cutsheet	Cutsheet 100% Taqi Zaidi	
<input checked="" type="checkbox"/>	Project Plan	Project Plan	Aidan Cadieux, Jamie Lewis, Matthew Telford, Quinn ...

# Budget (Preliminary)

UltraSol Energy Solutions Preliminary Budget					
	# Units	Cost/Unit	Subtotals	Category Total	% of Total
Project Management Staff					
				\$250,000	17%
Project manager	960	\$100	\$96,000		
Project team members	1920	\$75	\$144,000		
Contractors (Cabling, Software Customization)	100	\$100	\$10,000		
Hardware					
Network Infrastructure				\$409,000	29%
Routers	8	\$5,000	\$40,000		
L2 Switches	30	\$4,000	\$120,000		
L3 Switches	30	\$6,000	\$180,000		
Edge Firewall	6	\$8,000	\$48,000		
Site Firewalls	1	\$3,000	\$3,000		
Racks, Cable, Accessories	3	\$6,000	\$18,000		
Server Infrastructure				\$372,000	26%
Blade Servers + Chassis	4	\$60,000	\$240,000		
Drive Array + Drives	3	\$40,000	\$120,000		
Racks, Cable, Accessories	2	\$6,000	\$12,000		
Client Infrastructure				\$213,000	15%
PC Users - PC + 2 Monitors	66	\$1,500	\$99,000		
Mobile Users - Laptop + Extra Monitor + Docking Station	60	\$1,200	\$72,000		
Tablet Users - MS Surface + 1 Hand Cases	35	\$1,200	\$42,000		
Software					
Licensing				\$99,750	7%
On-Prem Operating Systems - Windows 2019 Standard	6	\$1,000	\$6,000		
On-Prem Operating Systems - Windows 10 Pro	130	\$175	\$22,750		
Microsoft 365 Premium Licensing	260	\$100	\$26,000		
Misc Software Licensing (Adobe, Winzip, Database)	5	\$9,000	\$45,000		
Cloud Access / Licensing / Data Storage				\$18,000	1%
AWS	1	\$9,000	\$9,000		
Azure	1	\$9,000	\$9,000		
Other Costs					
Construction / Renovation				\$12,000	1%
Labour	40	\$100	\$4,000		
Materials	1	\$8,000	\$8,000		
Training and Support				\$58,400	4%
IT Skills Training	100	\$500	\$50,000		
User Training	25	\$700	\$8,400		
Reserves				\$214,823	15%
Contingency Reserves (Known Unknowns) 10%			\$143,215.00		
Management Reserves (Unknown unknowns) 5%			\$71,607.50		
Total Project Cost Estimate - Does Not Include Reserves				\$1,432,150	

# Project Management Plan - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 24, 2024

**Version:** 1.00

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## Project Overview

Throughout this project, management will be handled as a shared effort. Each member is encouraged to express their thoughts and ideas whenever they believe it to be important. All members shall be open-minded and willing to work with each other.

## Project Team Organization

MAJTeQ is comprised of five members which can be found in the header under the section "Assigned Members". The team will create and follow standards for organizing tasks, documentation, and other items such as diagrams or demonstrations.

## Team Roles and Responsibilities

Each member of MAJTeQ is considered an equal and shall be treated accordingly. As it currently stands, there are general sections of the project that will be spearheaded by each member of the team. More information on this can be found within the Work Breakdown Sheet document. The sections have thus far been broken into: storage, network backbone, network front facing, security, cloud, and monitoring.

## Monitoring and Controlling Plans

Team meetings are held at the start of each work period to ensure the tasks that must be completed are at the forethought of the team. Tasks in the Work Breakdown Sheet will be given a general schedule timeline for the time being, and will be updated as the project progresses. If a task is considered behind, that will be focused on by the assignee. If the task is still not able to be completed, the task will be assigned to another member with less tasks or who is waiting for the first task to be completed.

## Decision Making

Decisions will be a team effort with a three-vote system put into place. Official change requests will follow the MAJTeQ change request form template, needing three members of the team to agree in order for the change to go through.

# **Conflict Resolution**

Conflict resolution will be handled via the members involved with the conflict through communication. If communicating does not lead to resolution within a reasonable time period, a member of the team will attempt conflict resolution via communication. If the conflict persists, an instructor will be involved.

# Communication Management Plan - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger  
**Date Last Modified:** January 29, 2024  
**Version:** 1.03

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## Stakeholder Communications Requirements

Communications to stakeholders will be through formal documents with a standardized structure. This structure will contain a uniform title block, text sizing, font, and general text style - paragraph or bullet form. Communications to stakeholders shall be on time as requested by the stakeholder, completed to the fullest ability of the team.

## Communications Summary

Throughout the course of this project communication will be focused upon in order to maintain a collective understanding of the general project, as opposed to an individual only having knowledge of their own sections. The following schedule will be used to ensure this:

Stakeholder	Communications Name	Delivery Method/Format	Producer	Due/Frequency
Project Team	Daily Meeting	Short meeting with digital copy of notes, uploaded in GitHub and ProofHub	Quinn Parent	Start of free time during PROJ class as needed
Project Managers and Team	Weekly Status Report	Pre-Filled in document brought up during a meeting.	Project Manager	Alternating Wednesday and Thursdays

During the daily meeting, notes will be taken and uploaded to the discussion section of the ProofHub with the title of that "day's date meeting notes". The notes will also be pushed to the GitHub repository that the team maintains for formal and general PROJ2000 documents.

## Comments/Guidelines

Communication between the team members will be mostly informal with general project related communications taking place in person or through ProofHub discussions. Other non-project relating communications will take place on discord, examples of these would be alerting the team of an absence or late arrival. Meeting notes have a general template that should be

followed for clarity sake; changes may be made in the future. Other documents that may be needed will follow their own general template as well, this will streamline the documentation process. Communications with stakeholders, as mentioned, will be in a more formal setting, following the title block, text sizing, and general text style structure that has been pre-set. when reporting to team members vs. stakeholders

## **Escalation Procedures for Resolving Issues**

Escalation shall be done when a task is falling behind and the team member that is assigned to said task is unable to complete it in a timely manner. The expectation is for the team member to let the other members know during the daily meetings that they will be working on the task, or if they are unable to, let the team know so another member can help out. Depending on the task, it can be fully transferred over to another team member, or just have a second team member to help streamline the process. If a team member is falling behind on a task and does not let anyone know, inspection of the WBS progress in the Gantt chart will notify the team and allow for intervention if needed.

## **Revision Procedures for this Document**

Revisions will be made to this, or any other document, as needed. The expectation for updating a document is to reversion the document in the title block, and let the team know when it is possible - whether that be through ProofHub, in-person, or even in Discord. Any document amendments are also expected to be put committed to the GitHub with a sufficient comment mentioning that the document has been updated, and possibly a brief overview of the changes made if they could be easily overlooked.

## **Glossary of Common Terminology**

This list will be updated as terminology is expanded.

- VM - Virtual Machine - a virtual computer.
- Hypervisor - a server that is able to have other virtual computers on it.
- HA - High Availability - being able to have one server that can go down without it being noticeable to the end users.



# Quality Management Plan – MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 24, 2024

**Version:** 1.00

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## Introduction

The approach to Quality Management for the UltraSol Energy Solutions IT infrastructure project is centered on ensuring the highest standards of efficiency, functionality, and security in all aspects of the project. Our methodology involves comprehensive testing, validation, and verification processes at every stage of the project lifecycle, from planning to execution and post-implementation review. We are committed to ensuring that every component of the IT infrastructure aligns with both industry best practices and the specific needs of UES.

## Quality Standards

**Responsibility for Quality Certification:** Quality assurance responsibilities are assigned to specialized teams within the MAJTEQ Consulting Group. This includes a dedicated IT Quality Assurance team for technology components and a Project Quality Manager for overall project quality certification.

- **Quality Benchmarks for Project Elements:**
  - **Network Infrastructure:** Quality standards include robustness, latency, throughput, and security compliance. Tests for network components include performance testing, security vulnerability assessments, and network load testing.
  - **Cloud Systems and Data Governance:** Adherence to data integrity, security standards (such as ISO/IEC 27001), and compliance with relevant data protection regulations. Quality checks include regular security audits and data integrity tests.
  - **Server/Client Deployment:** Focus on system reliability, scalability, and response times. Testing involves stress testing, scalability testing, and user acceptance testing.
- **Testing Process for Major Elements:**
  - **Pre-Implementation Testing:** Involves simulation environments to assess the performance of network setups, server configurations, and application deployments.
  - **Implementation Phase Testing:** Conducted in a live environment, this includes real-time monitoring, load testing, and security testing.

- **Post-Implementation Review:** Includes user feedback analysis, system performance evaluation, and security audits.

## **Problem Reporting and Corrective Action Process**

### **Issue Reporting Levels**

- **Level 1 (Minor Issues):** Handled internally within the respective technical teams. Includes minor software bugs or hardware compatibility issues.
- **Level 2 (Moderate Issues):** Requires reporting to the Project Quality Manager. These are issues that may impact project timelines or minor security concerns.
- **Level 3 (Major Issues):** Any major disruptions, security breaches, or significant delays must be escalated to the Project Steering Committee and UES senior management.

### **Corrective Action Process**

- **Immediate Assessment:** Rapid evaluation of the issue to determine the impact and urgency.
- **Containment Actions:** Immediate actions to contain and limit the impact of the issue.
- **Root Cause Analysis:** Conducted to identify the underlying causes of the issue.
- **Corrective Actions:** Development and implementation of a plan to rectify the issue and prevent recurrence.
- **Reporting and Documentation:** Comprehensive documentation of the issue, the analysis, and the corrective actions taken.

# Project Milestone Report Template - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 29, 2024

**Version:** 1.00

**Date:**

Milestone	Milestone Description	Milestone Owner	Expected Completion Date	Actual Completion Date	Status	Notes
Milestone 1						
Milestone 2						
Milestone 3						

## Summary

**Overall Project Status:**

**Key Achievements:**

**Challenges and Risks:**

**Future Milestones:**

# Project Status Report Template - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 26, 2024

**Version:** 1.00

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**Date:**

**Team Member Name:**

**Work completed this reporting period:**

**Work to complete next reporting period:**

**What's going well and why:**

**What's not going well and why:**

**Suggestions/Issues:**

# Change Control Plan - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 29, 2024

**Version:** 1.00

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## Purpose

This document is to describe how documents and infrastructure changes can be made and the process of said changes. This is due to the active project at hand, meaning things will change as progression continues.

## How to use this Document

The Change Control Plan will be used to track committed changes and follow-through with confirmed changes from change request forms.

## Documentation

Documentation will have less restrictions on changes than the infrastructure as it is versioned and commits can be tracked through GitHub.

Changes can be made by any member of the team at any time. If a change is made it is expected that the version of the document will be updated, and any changes made will briefly be described in the commit message to GitHub. The document should also be versioned in ProofHub under the task it relates to.

## Project Infrastructure

Changes related to project infrastructure will have more restrictions attached to them as they are more impactful towards the project as a whole, and are not versioned in the same way that project documents are.

## Step 1 - Identify Needed Changes

- Identify a change that needs to be made in the project and note the reasons why.
- Fill out the Change Request Form Template to reflect the identified changes needed.

Changes that are considered large enough to be accepted are:

- Changes to the timeline, specifically extensions of a week or more that cannot be resolved by
- Change of approved scope.
- Result of a risk - infrastructure needs to be repaired or changed.

## **Step 2 - Submit Change Request Form**

- Submit the completed Change Request Form to the Project Management Control directory for review.
- The form should include a detailed description of the change, the reason for it, and any potential impacts on the project.

## **Step 3 - Review of Change Request**

- The Change Request Form will need to be accepted by a majority of the team in order to be accepted.
- This review process may involve a meeting or discussion among the team members to understand the implications of the proposed change.
- A group decision will be made regarding the approval of the change and any refused Change Request Forms will be marked 'Denied'.
- A member of the project team will be assigned to any approved change for overseeing its progress.

## **Step 4 - Implementation of Change**

- The member assigned to manage the change, will implement the change and document the progress on the Change Request Form.
- A sub-task will be assigned in ProofHub to facilitate the change and its progress.
- The managing assigned member will ensure that the change is implemented as planned and that it achieves the desired outcome.

## **Step 5 - Monitor and Control**

- The member assigned to manage the change, will monitor the impact of the change on the project and take any needed action if necessary.
- This could involve additional changes or adjustments to the project plan.

# Change Request Form Template - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger  
**Date Last Modified:** January 24, 2024  
**Version:** 1.00

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**Date Request Submitted:**  
**Title of Change Request:**  
**Description of change requested:**  
**Impact of change:**  
**Reason for change:**  
**Justification for change:**  
**Change Category:**

- ☐ Scope
- ☐ Schedule
- ☐ Technology
- ☐ Other

---

**Note:** at least three members of the team must agree for the change to go through.  
**Member Votes:**

Name	Date	Verdict

---

**STATUS OF REQUEST:** \_\_\_\_\_

# Project Risk Management Plan - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger

**Date Last Modified:** January 31, 2024

**Version:** 1.00

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## Introduction

This Risk Management Plan outlines the approach that MAJTeQ will employ to manage risks for the UltraSol Energy Solutions IT infrastructure merger project. The project's primary objective is to establish a Proof of Concept (PoC) demonstrating the feasibility of a technology solution for the merged entities of UltraSol Energy Solutions (UES) and Solar-Tec. The success of this project hinges on a seamless merger of the two companies and their IT systems, minimizing disruption to ongoing operations. This plan will guide the team in identifying potential risks, analyzing their impact, monitoring their occurrence, and planning for their resolution.

## Risk Management Processes

The MAJTeQ Group will employ a systematic approach to risk management. This includes identifying potential risks through:

- Brainstorming sessions
- Consulting with expert resources
- Analysis of project documents

Each identified risk will be documented in a risk register, detailing the potential impact and probability of the risk, as well as potential response strategies.

## Risk Response Planning

Risk Response Planning is the process of selecting the appropriate response strategy for each identified risk. This plan helps the project to avoid risks, transfer responsibility for risks, mitigate the consequences of risks, and reduce the probability of occurrence of risks.

## Strategies for Managing Risks

- **Avoid:** Risk Avoidance involves changing the project management plan to eliminate the threat posed by the risk. Some risks can be avoided by clarifying requirements, obtaining additional information, improving communication, or acquiring expertise.



- **Transfer:** Transferring a risk requires moving, shifting, or reassigning some or all of the negative impact and ownership to a third party. This does not eliminate the risk but gives another party the responsibility to manage it.
- **Mitigate:** Risk Mitigation implies a reduction in the probability and/or impact of a negative risk. Reducing the probability and/or impact of a risk occurring is often more effective than dealing with the risk after it has occurred.
- **Accept:** This strategy indicates that the project team has decided not to change the project management plan: schedule, approach, or reduce project scope, or is unable to identify another suitable response strategy.

This document was modified using ChatGPT for clarity purposes.






# Client Acceptance Form - MAJTeQ

**Project Name:** UltraSol Energy Solutions Merger  
**Date Last Modified:** January 31st, 2024  
**Version:** 1.00

## Client Acceptance/Project Completion Form

**Project Name:** UltraSol Energy Solutions Merger  
**Project Manager:** Quinn Parent

MAJTeQ acknowledge and accept delivery of the work completed for this project on behalf of our organization. Our signatures attest to the agreement that this project has been completed. No further work should be done regarding this project.

Name	Role	Signature	Date
Taqi Zaidi	Network Architect and Innovations Specialist		Feb. 09. 2024
Quinn Parent	Project Manager		Feb. 09. 2024
Matthew Telford	Security Analyst		Feb. 09. 2024
Jamie Lewis	IT Hardware Deployment Specialist		Feb. 09. 2024
Aidan Cadieux	IT Infrastructure Specialist		Feb. 09. 2024

Does this project meet the requirements for a completed success as outlined by the Project Charter and any certified Change Process documentation?

YES ☐

NO ☐

Please provide suggestions on how our organization could improve its project delivery capability in the future along with the main reasons for your satisfaction or dissatisfaction with this project below:

# Glossary of Terms

- **Budget Estimate:** A preliminary calculation of the financial resources required for the project.
- **Business Case:** A detailed justification for a proposed project, outlining its objectives, benefits, costs, and risks.
- **Change Request:** Formal proposal to modify project aspects.
- **Code of Conduct:** Guidelines outlining expected behavior and principles for team members to follow.
- **Communications Summary:** Overview of communication methods and schedule for the project.
- **Corrective Action:** Steps taken to resolve project issues.
- **Daily Meeting:** Regular team meeting held daily to discuss project updates and tasks.
- **Decision Making:** Process for making project-related choices.
- **Deliverables:** Tangible outcomes or results expected from a project upon completion.
- **Documentation:** Records detailing project issues and actions.
- **Financial Analysis:** Examination of the financial implications and feasibility of the project.
- **High Availability (HA):** A system design approach ensuring uninterrupted service by minimizing downtime.
- **Hypervisor:** A server software that enables the creation and management of virtual machines.
- **Infrastructure Changes:** Alterations to project infrastructure with stricter controls.
- **Instructor:** Person providing guidance to the project team.
- **Integration:** Combining different components or systems to function together as a whole.
- **Issue Reporting:** Process for identifying project problems.
- **Manager:** An individual responsible for overseeing the planning, execution, and closure of a project.
- **Meeting Guidelines:** Rules and procedures governing the conduct and organization of team meetings.
- **Merger:** The combining of two or more organizations into a single entity.
- **Milestones:** Significant points or events in a project timeline used to track progress and measure achievement.
- **Options Analysis:** A systematic evaluation of different alternatives available for addressing a problem or achieving a goal.
- **Participation:** Agreement to actively engage and contribute to team activities and discussions.
- **Planning:** Selecting response strategies for identified risks.

- **Problem Solving:** Commitment to collaboratively addressing challenges and conflicts that arise during the project.
- **Project Charter:** A formal document that authorizes the start of a project, outlining its objectives, scope, stakeholders, and responsibilities.
- **Project Management Plan:** Document outlining project execution and control.
- **Project Overview:** Summary of project goals and management approach.
- **Project Team Members:** Individuals assigned to work on the project.
- **Proof of Concept (PoC):** A demonstration to verify the feasibility of a concept or technology.
- **Quality Management Plan:** Document outlining quality strategies.
- **Quality Standards:** Benchmarks for measuring project quality.
- **Recommendation:** A proposed course of action or solution based on the analysis of available options.
- **Register:** Document detailing identified risks.
- **Reporting:** Process of communicating project progress, issues, and other relevant information.
- **Requirements:** Specifications or conditions that must be fulfilled by the project deliverables.
- **Revision Procedures:** Guidelines for updating and revising project documents, including version control and communication methods.
- **Risk Identification:** Process of identifying potential risks.
- **Risk Management Plan:** Outline of risk management approach.
- **Risk Mitigation:** Reducing probability or impact of risk.
- **Risk Register:** Document detailing identified risks.
- **Risk Response Planning:** Selecting response strategies for identified risks.
- **Risk Transfer:** Shifting responsibility for risk to third party.
- **Risks:** Potential events or circumstances that may have adverse effects on the project's objectives or outcomes.
- **Roles:** Assignments and responsibilities of individuals involved in a project.
- **Schedule Estimate:** Projected timeline for completing the project's phases and milestones.
- **Scope:** The defined boundaries and objectives of a project.
- **Stakeholder Communications Requirements:** Formal guidelines for communicating with stakeholders, including document structure and delivery timing.
- **Technical Objectives:** Specific goals focused on implementing technological solutions to achieve business objectives.
- **Team Organization:** Structure and roles within the project team.
- **Testing Process:** Procedures for evaluating project elements.

- **Transfer:** Shifting responsibility for risk to third party.
- **VM (Virtual Machine):** A virtual computer used for running software applications.  
(This document was modified using ChatGPT for clarity purposes.)