

# Empowering Sustainability

Solar Energy Integration to Reduce Grid  
Dependence at Northeastern University

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# PURPOSE

**Project Goal:** Mitigate Northeastern University's reliance on traditional grid energy, promoting renewable energy adoption.

1. **Reduced Ecological Footprint:** Decrease the university's environmental impact.
2. **Global Green Energy Transition:** Contribute to a sustainable energy future.





# OBJECTIVE

**Comprehensive PV System Design:** Offer tailored clean energy solution through a comprehensive PV system design and implementation.

# SCOPE

Deliver NU a tailored clean energy solution to reduce grid dependence, drive cost efficiencies, and propel sustainability.

## **Comprehensive Approach:**

- **Energy Assessment:** Evaluate campus energy needs and opportunities.
- **Optimized PV System:** Design, procure, and install efficient solar solution.
- **Infrastructure Integration:** Seamlessly integrate with existing electrical systems.
- **Monitoring/Control Systems:** Develop tools for efficient management and control.



# Critical Success Factors

**01**

Accurate Energy Assessment

**02**

Optimized PV System Design

**03**

Vendor and Equipment Selection

**04**

Effective Integration and Monitoring

**05**

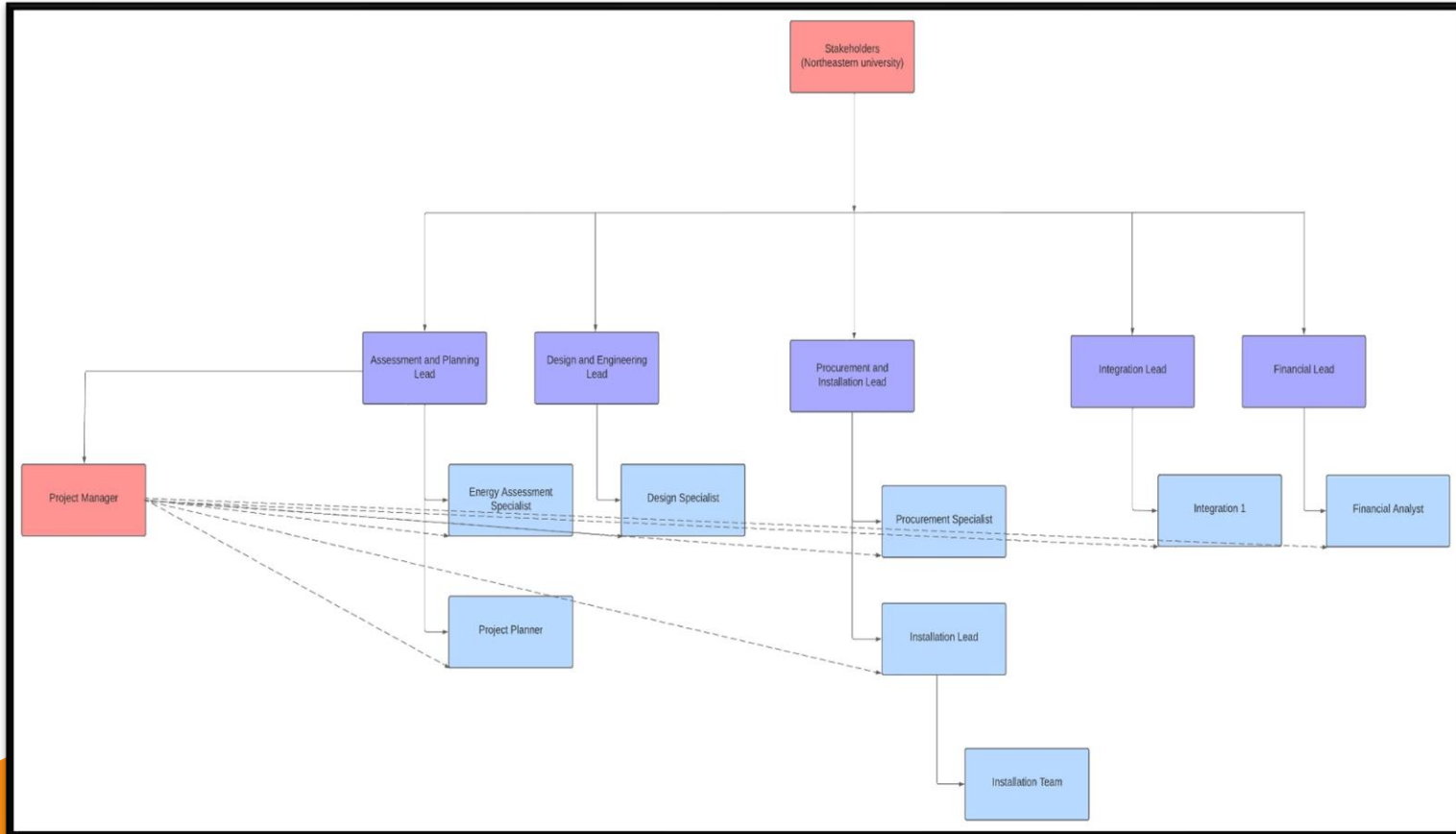
Adherence to Regulatory  
Requirements

# Technical Approach

To achieve the objective of lowering Northeastern University's electricity bills by reducing Grid dependency the following steps will be undertaken:

- Assessment and Planning
- Design and Engineering
- Procurement and Installation
- Revenue Forecasting

# Organization Chart



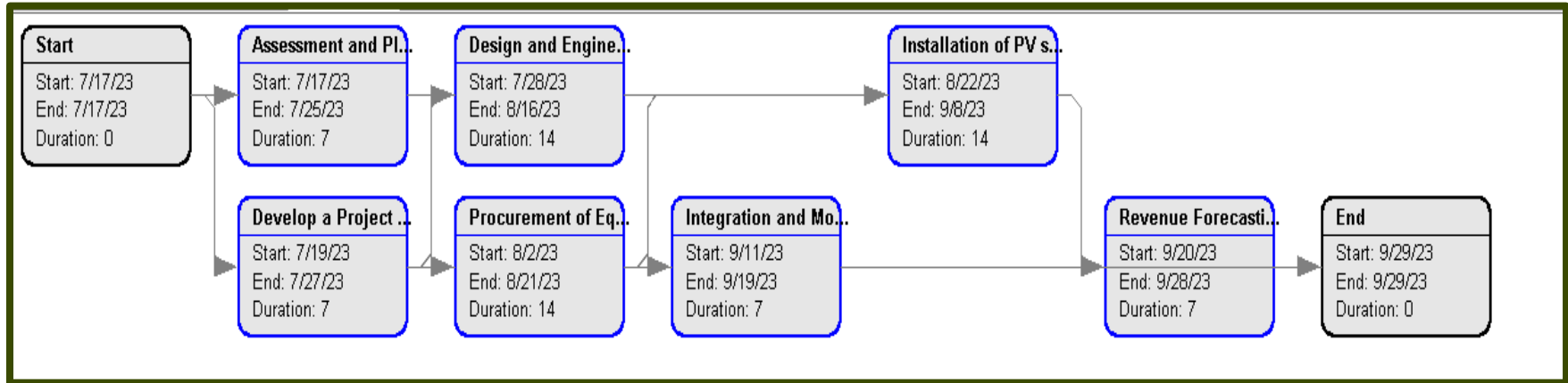
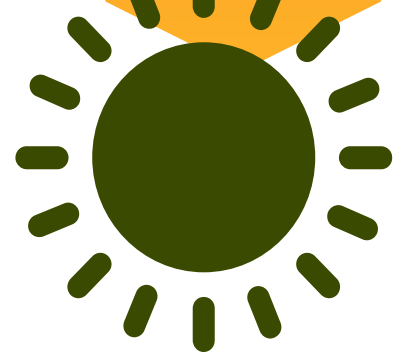
# WBS & RACI

ID	Task	Responsibility	Time (weeks)	Preceding Tasks	People Required
1	Assessment and Planning	Energy Assessment Specialist	1	-	2
1a	Develop Project Plan	Project Planner	1	-	2
2	Design and Engineering	Design Specialist	2	1,1a	2
3	Procurement of Equipments	Procurement Specialist	2	1a	2
3a	Installation of PV System	Installation Lead	2	2,3	6
4	Integration and Montioring	Integration 1	1	3	2
5	Revenue Forecasting	Financial Analyst	1	4	2

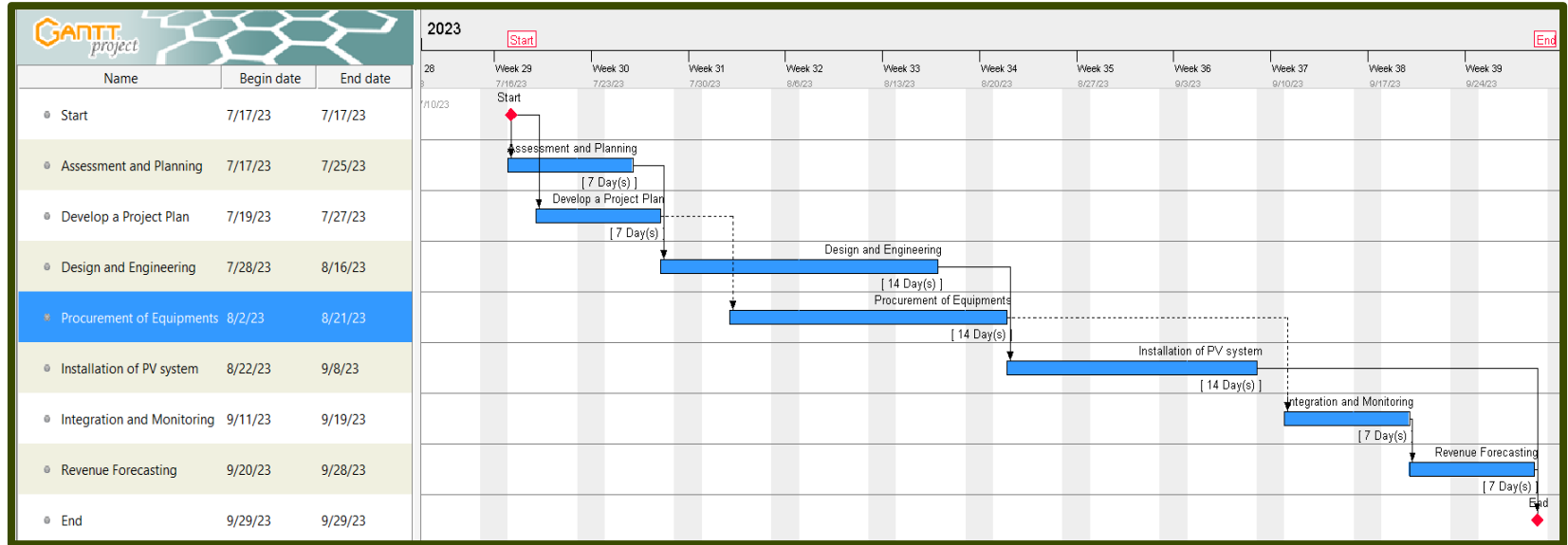
ID	Step	Responsible	Accountable	Consulted	Informed
1	Assessment and Planning	Energy Assessment Specialist	Project Manager	Assessment and Planning Lead	Stakeholders
1a.	Develop Project Plan	Project Planner	Project Manager	Assessment and Planning Lead	Stakeholders
2	Design and Engineering	Design Specialist	Project Manager	Design and Engineering Lead	Stakeholders
3	Procurement of equipments	Procurement Specialist	Project Manager	Procurement and Installation Lead	Stakeholders
3a.	Installation of PV system	Installation Lead	Project Manager	Procurement and Installation Lead	Stakeholders
4	Integration and Monitoring	Integration 1	Project Manager	Integration Lead	Stakeholders
5	Revenue Forecasting	Financial Analyst	Project Manager	Financial Lead	Stakeholders



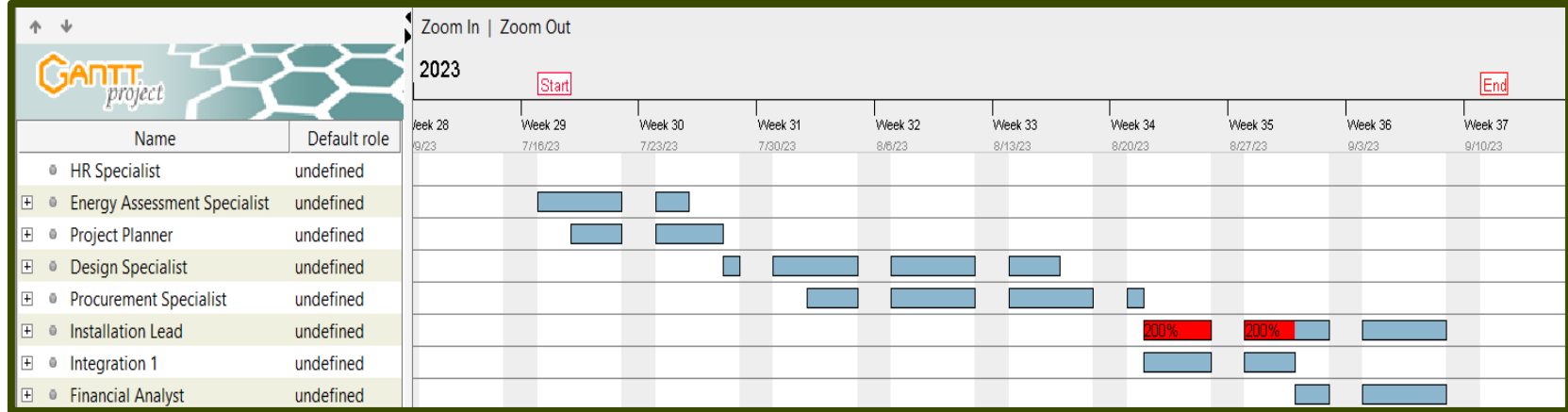
# PERT Chart



# Gantt Chart



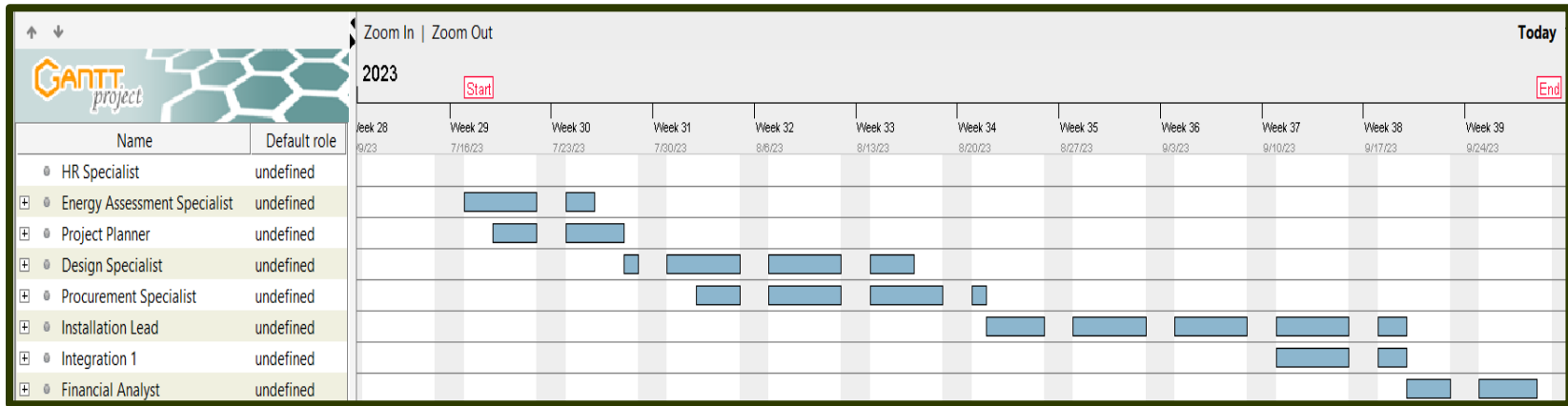
# Gantt Chart



Resource loading without balancing



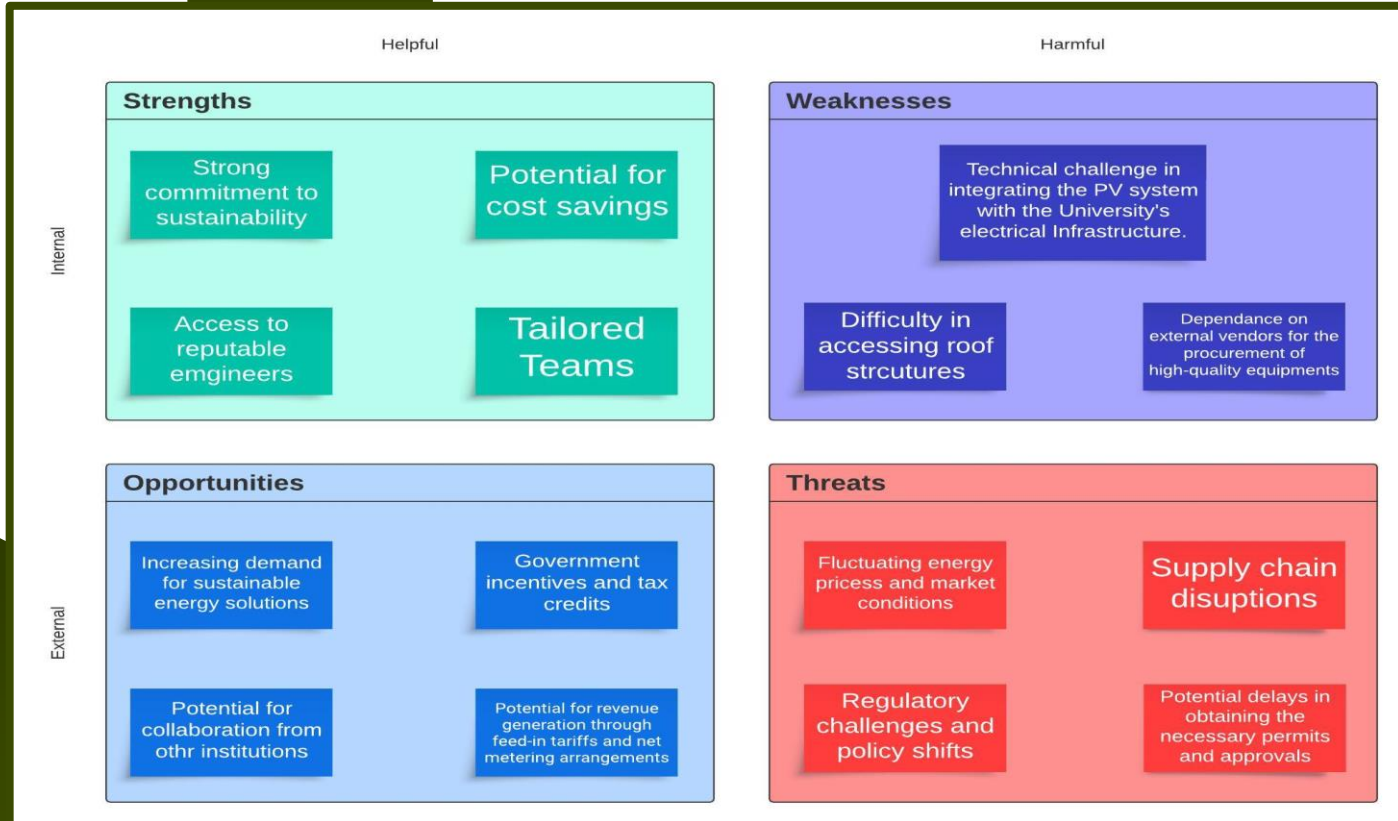
# Gantt Chart



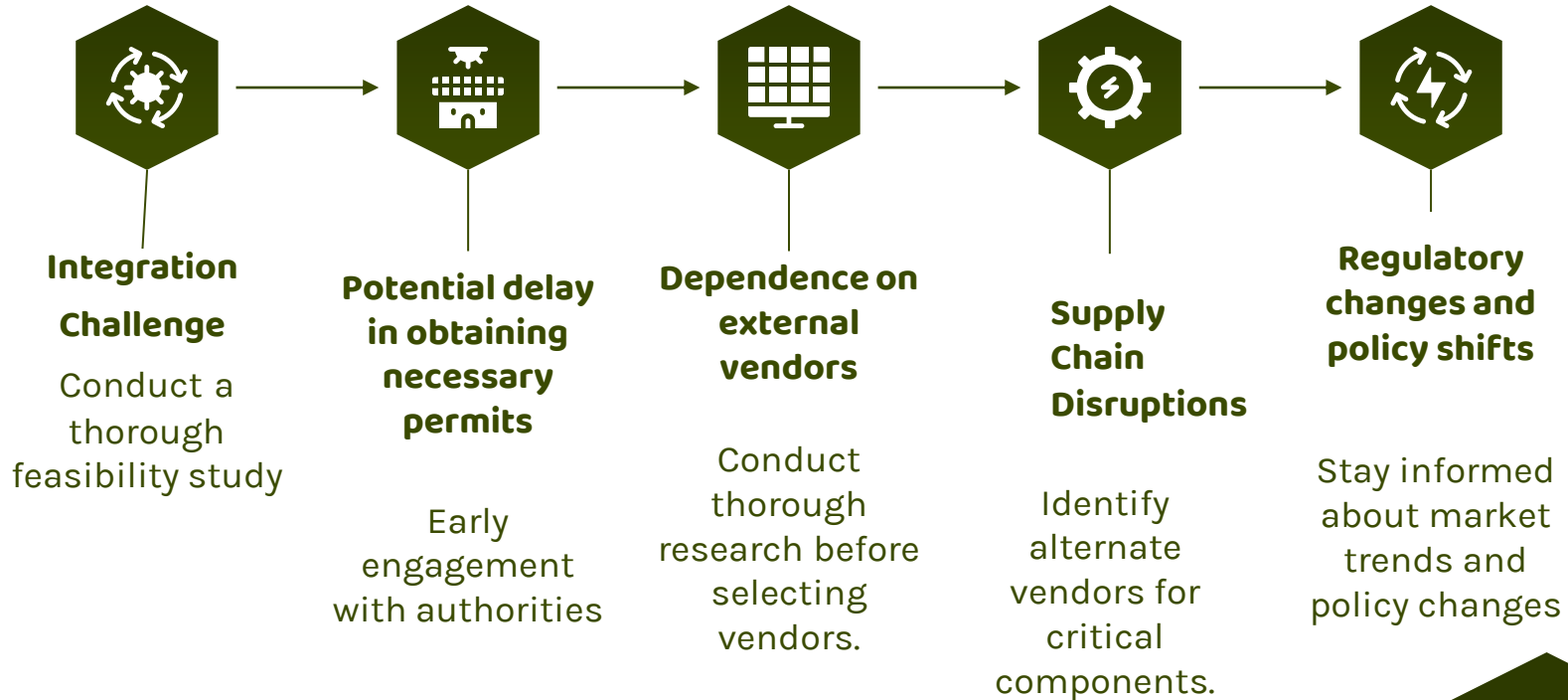
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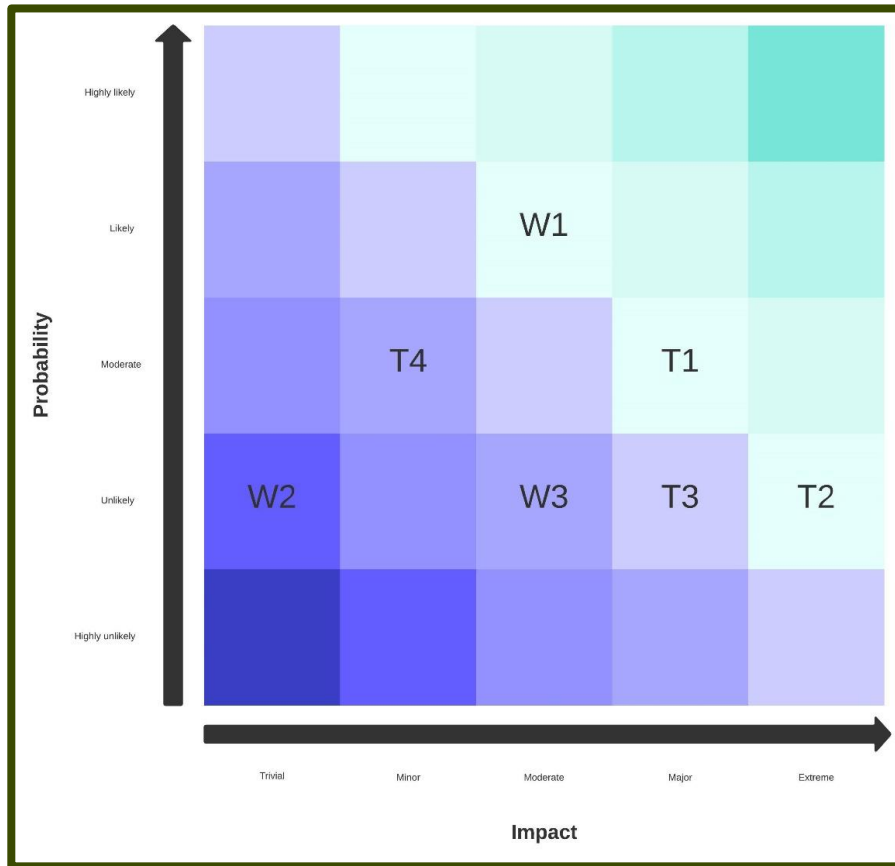
# SWOT ANALYSIS



# PROJECT TIMELINE

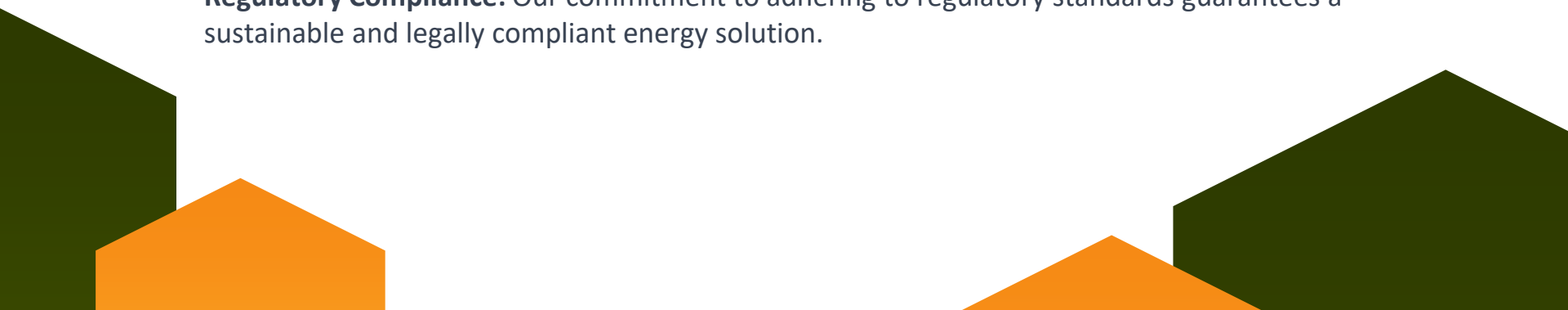


# Risk Matrix





## Conclusion

- **Transformational Change:** Our project represents a significant leap towards a greener energy future, aiming to reduce Northeastern University's reliance on conventional energy sources.
  - **Maximized Efficiency:** Through accurate energy assessment and optimized PV design, we're ensuring the highest energy generation potential while reducing costs.
  - **Regulatory Compliance:** Our commitment to adhering to regulatory standards guarantees a sustainable and legally compliant energy solution.
- 



# Conclusion

- **Investor and Beneficiary:** Northeastern University's investment not only promises economic advantages but solidifies its position as a leader in sustainable academia.
- **Reduced Footprint:** As we forge a path to energy independence, we're actively decreasing the university's environmental footprint.
- **Towards a Sustainable Future:** By reducing grid dependence and promoting clean energy adoption, our project sets a precedent for a brighter and more sustainable future.



Questions?

**THANKS!**