196

1 MW on Grid PV Project

Construction of 1 Mega Watt On-Grid Solar Project

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NAME: Mr. Ahmad Massood **ENROLLMENT:** 03-298162-048

SEMISTER: SPRING 2017, MSPM-II **PROGRAM:** MS (PROJECT MANAGEMENT)

BAHRIA UNIVERSITY LAHORE CAMPUS

SUBMITTED TO: Mr. Ahsan Maqbool

SUBMISSION DATE: 20 JUNE 2017

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TO WHOM IT MAY CONCERN

This witness statement is issued to Mr. Muhammad Ahmad Masood Enrollment: 03-298162-048 and Mr. Ali Murtaza 03-298162-003 for the completion of MS Project Management degree program from Bahria University (Lahore Campus).

It is witnessed that both applicants visited our premises frequently and conduct multiple meetings with top management for implementation of Project Management Office (PMO) in our organization.

In last, it is pleasure to mentioned that both team members were demonstrated good ethical and professional approach to the work during stay in this organization

Certified By:

DWP TECHNOLOGIES PVT. LTD. LAHORE

Name: Rana Farhan Qurban
Designation: Manager Projects

Preface:

It is certified that MS project report Titled **"1MW on Grid PV project" by** Student named **Mr. Ali Murtaza & Mr. Ahmad Masood** has been examined by us. We undertake the followings:

a. The project report has significant new work / knowledge as is already published or is pending for publication elsewhere. No equation, diagram, table, paragraph or section has been copied literally from previous work, unless it is kept under quotation marks and is duly referred to.

b. The work presented is the origin of the authors and the work of own (i.e. no plagiarism). The words of any thoughts, procedures, results or others have not been presented as authors own works.

c. No fabricated data or results have been produced, which have been compiled / analyzed.

d. There is no adulteration by controlling Research materials, equipment's or forms, or Changing or overlooking data or results with the end goal that the research is not precisely spoken to in the research record.

Mr. Ahsan Maqbool

Acknowledgement

To accomplish any objective, direction and support is elementary, without the effective accomplishment/Success is unrealistic. Subsequent to expressing gratitude toward Allah SWT, we might want to ascribe this accomplishment to our Parents & family. Also, we are very obligated to "Mr. Ahsan Maqbool" Bahria University Lahore Campus for this direction and supervision all through from begin to finish of this report.

We truly appreciate the participation of Project Manager Mr.RanaFarhan Qurban in DWP group .

It would not have been conceivable without the kind support of Bahria University administration and our class colleagues. We extend our true thanks to them.

Table of Contents

Introduction:

DWP GROUP Group is a leading provider of products, service and solutions in the field of Consumer Electronics & Technology. Globally acclaimed, highly reliable products with cutting-edge technology from the world's best engineered companies and experts uniquely position us to deliver comprehensive solutions to our customers.

DWP GROUP Group was established in 1999. CEO is M.Farooq Naseem. Company has 1528 employee with turn over about USD 150 million.
Legal entities of company includes;

a) Digital Word Pakistan Pvt. Ltd
b) DWP GROUP Technologies Pvt. Ltd
c) Elchem Power Pvt. Ltd

Company's head office is in 5 zafer Ali road Gulberg v, Lahore while manufacturing facility in 35Km Multan road Lahore.

1.1 Vision:

Evolve into a global organization where differentiation is created by work, knowledge, ethics and commitment; aspiring to be the most admired and respected company in the industry with a positive feedback.

1.2 Mission:

Provide completely reliable with high-quality products, solutions and services; resulting in customer loyalty, fair profit and an inspired human capital also.

1.3 Core values:

- **Honesty & Integrity**: Committed to promoting the highest standards of honesty and integrity

- **Innovation:** Consistently offer creative and cost competitive solutions to satisfy customer needs
- **Teamwork:** Strive to create and sustain a passionate and happy Team that delivers Teams Performance through cross functional enrolment, engagement and alignment.
- **Safety:** Take a proactive approach towards health, safety and environment management in order to achieve zero harm, No damage to environment and security of personnel.
- **Corporate Social Responsibility:** Support communities and maintain special focus on protecting environment across all our business operations.

1.4 Business units:

DWP GROUP Group comprises of business units in the following domains. Each division is responsible for its own business plan, development and execution. DWP GROUP has strategic focus on managed solutions and services and has the ability to customize various types of services which flexibly adopt to customer requirements.

1.4.1 Technology Division:

- Power (EcoStar Power Products, Solar solutions)
- Networks
- Infrastructure Solutions
- Professional Solutions
- Managed Services
- Documents Technology
- Commercial Air conditioners HVAC
- HealthCare

1.4.2 Consumer Electronic Division:

- EcoStar audio, video and Home appliances
- Gree Air conditioners

1.5 Company's Foot Prints:

DWP GROUP Group has many offices here in Pakistan to fulfill customer's needs.

Head office:

- Lahore

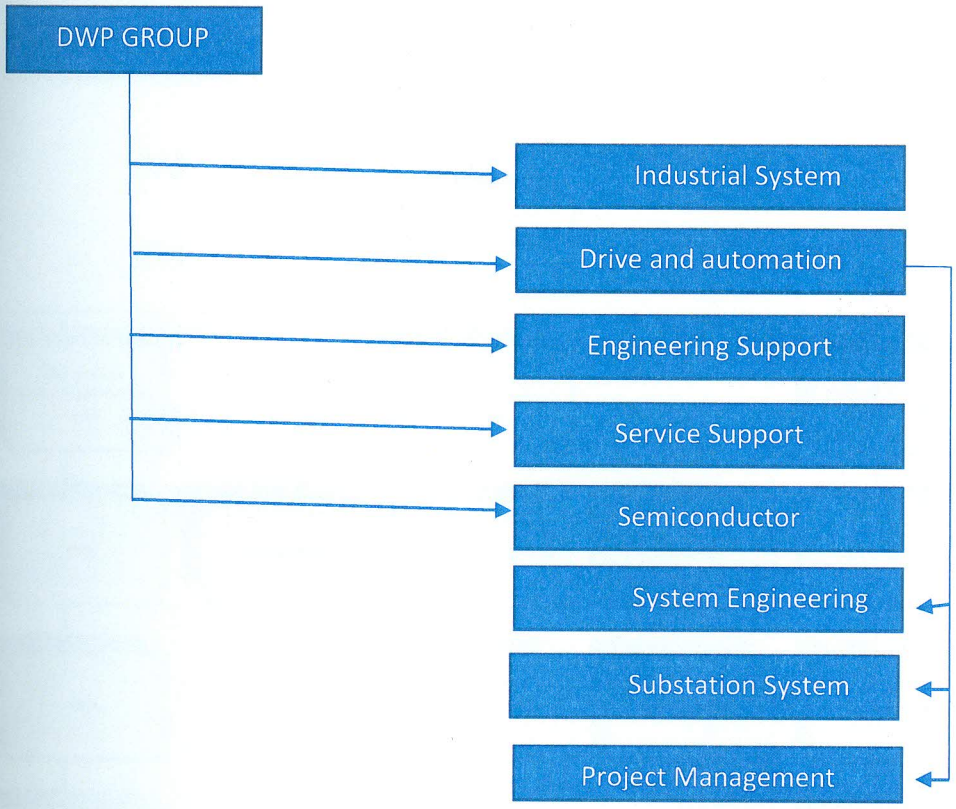
Regional Offices:

- Islamabad
- Karachi
- Hyderabad
- Faisalabad
- Gujranwala
- Multan
- Sargodha
- Lahore
- Sialkot

Company's product partners are as follows,

1.5.1 DWP GROUP Business Division:

This new corporate structure will allow company to grow our business and value-add to customers.



Company's Service support includes,

System installation, commissioning and integrating

Periodic maintenance, Servicing and testing

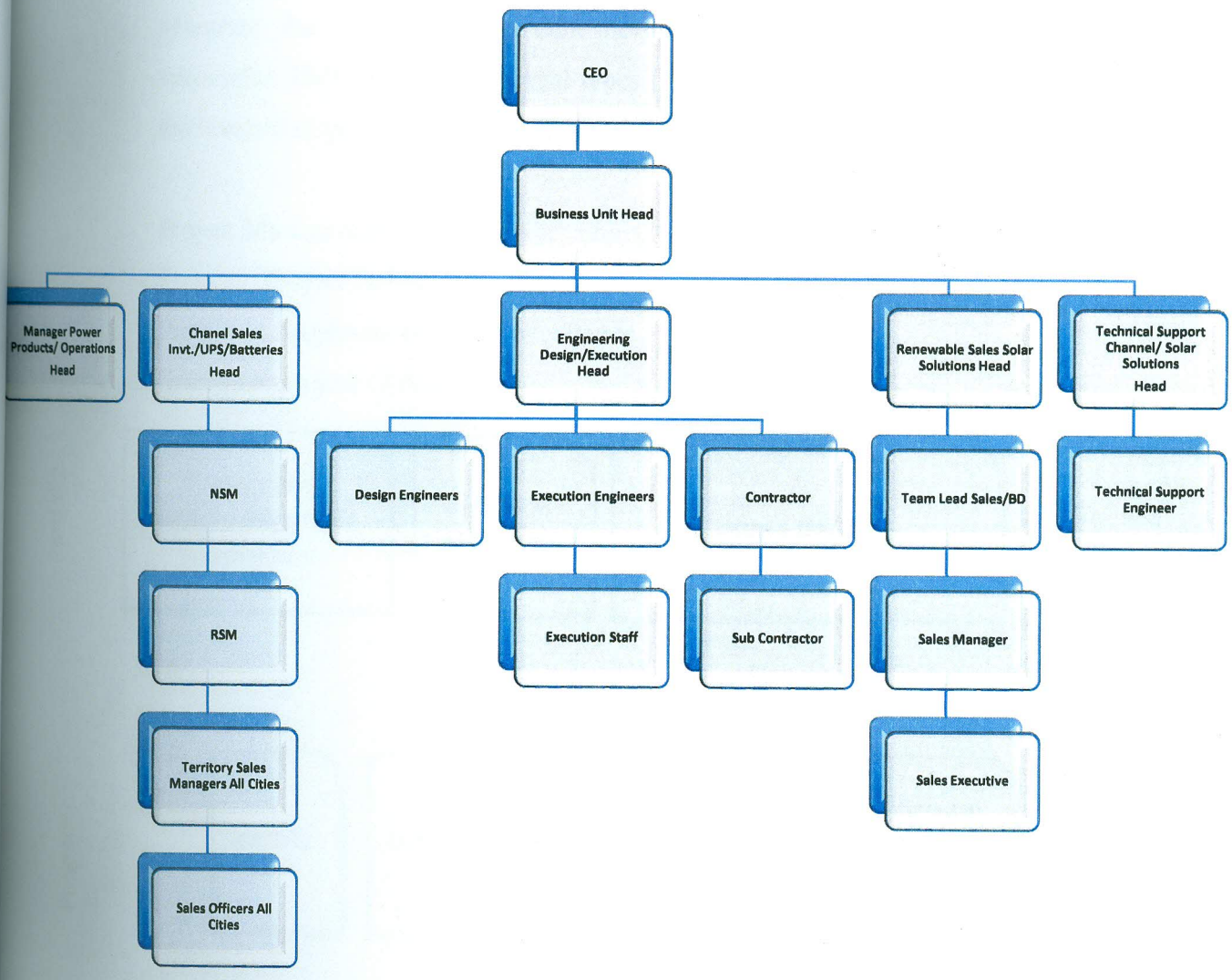
Analysis of technical Problems

Organize training for customers and end user

System maintenance and troubleshooting

Energy saving consultancy as well as project execution

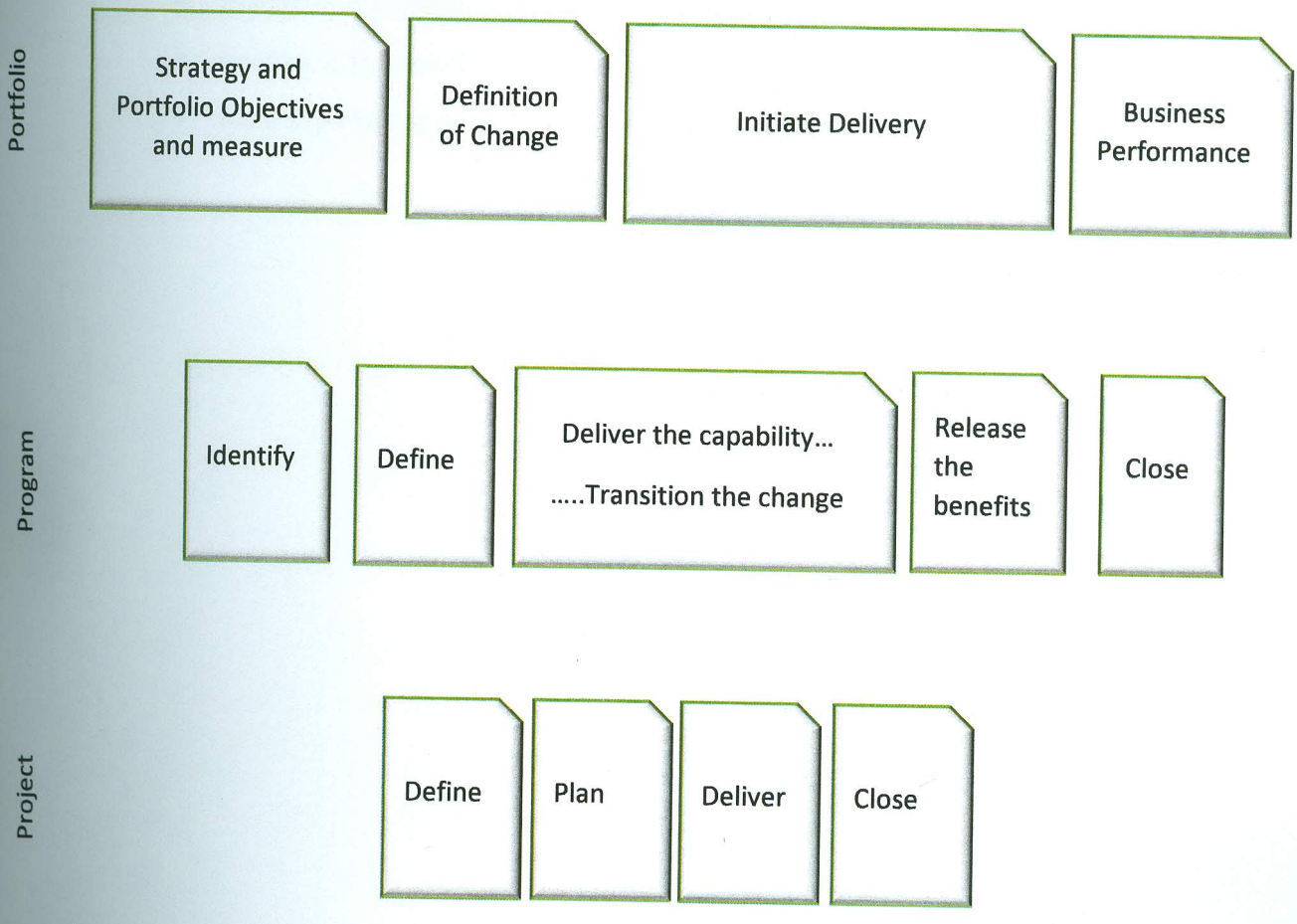
1.6 Company Structure:



2. Introduction to Project Management office:

A PMO is cartelized Project/Program/Portfolio office which is usually used for the assistance, governance, project management support, facilitates the sharing of resources, project management methodologies, tool and techniques. PMO also penetrate the project management norms in the organization to make project successful. PMO may be of several types from supportive to directive with respect to the level of responsibilities. The different names of PMO are

Project Management Office
Strategic Project Office
Project Management center of excellence
Enterprise project Office

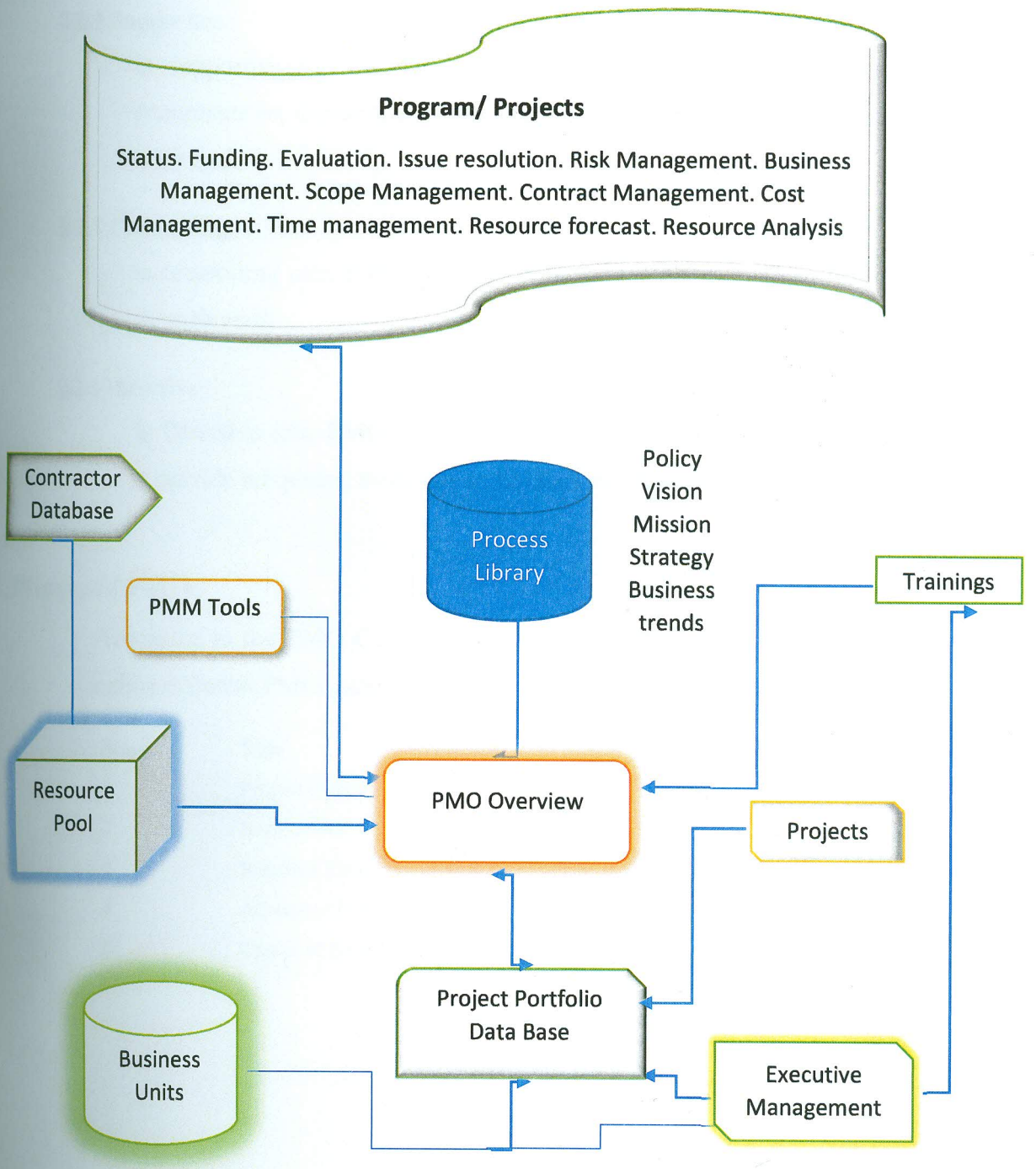


2.1 Roles and Responsibilities

Rose and responsibilities of PMO are:

- Introduction of project management norms in organization
- Providing guideline to manage the projects
- Introduce best tracking systems for the progress of the project.
- Facilitation and supporting of project team
- Introduction off effective ways of communication through best practices.
- Introduce standard templates for the documentation of project progress report.
- Engagement of all stake holders for betters results.
- On the basis of type help in decision making.
- Controlling of project staff where required
- Program management with external units on multi party initiatives.
- Practical implementation of risk management plan
- Feedback for stakeholders to engage them properly
- Intra department cross functional conflict resolution

Conceptual View of PMO



2.2 PMO Role in Organization

Considering the different roles of PMO there are three main roles

2.2.1 Supportive

In supportive role, PMO provide Procedure, Policies, Templates and further documents on demand. It works just like a consultant to provide consultancy on need basis

2.2.2 Controlling.

In controlling role, PMO provide Tools and templates but also assure compliance through audit.

2.2.3 Directive

In Directive role, PMO having full control, ownership and guarantee on projects, it provide templates, tools and techniques etc. Also assure compliance

2.3Stages of PMO:

According to the PMO Competency Continuum, there is a series of five stages that define different PMO maturity levels.

Stage	Title	Competency
1	Project Office	Oversight
2	Basic PMO	Control
3	Standard PMO	Process Support
4	Advanced PMO	Business Maturity
5	Center of Excellence	Strategic Alignment

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2.4 Challenges for implementing PMO:

- PMO needs support from the top management, according to its level PMO also required some authorities, so that PMO can implement its decisions and give directions to organization staff.
- PMO also required supportive atmosphere from organization and best communication channels so that it may implement the best project management norms.
- Funding and budget for implementation of PMO is also a vibrant challenge.
- Suitable communication among the stakeholder is also very critical for implementation of PMO.
- Place of PMO in the organizational hierarchy is very critical decision for the top management. This may be taken in accordance with the role and requirement by the PMO but it works best if it is directly reporting to the highest authority.

3. Implementation of PMO in DWP GROUP:

In DWP GROUP there is a need to complete development of PMO structure. As company is working in many fields, so developing a project management office under authority would save time, extra effort as well as will make more standardized and better quality with time and cost.

3.1Current structure of DWP GROUP:

As DWP GROUP has many field of work and in every field of work engineering head is managing everything as well as playing role of co-ordination.

Project manager should hold more decision power including resources and managing staff. When a project management office (PMO) is leveraged to its full potential, it can foster strategic alignment, improve project performance, develop future project leaders and support the success of the entire organization.

PMO could fill communication gap, should reporting to CEO.

3.2 Problems without PMO:

Without PMO there are

Mostly project complete with over run of cost and after finish date.

Lack of Centralized projects control office for all running projects.

There is no records of lesson learned of past projects.

There is no future planning to manage the future projects.

There is no implementation of project management norms in any project.

Same mistake again and again are happening in different projects.

There is no criteria of project daily progress report and millstone achievement.

There was no habit of rewards for best workers and because of no workers welfare policy mostly skilled workers leave the company when the get better opportunity.

3.2 PMO needed or Not:

DWP GROUP is developing organization and have different type of project under different department because of not having centralized project office most of their clients are unsatisfied due to late of projects and not engaging them timely. DWP GROUP management also want to grow their company so they should have project management office so that all projects complete under one umbrella and under one policy.

3.3Purposed PMO type:

Considering the whole scenario of DWP GROUP we are suggesting them controlling type of PMO at stage 3 but we think they should have directive level PMO but because of their management they do not even have any idea of PMO and project management norms in their organization firstly we are suggesting them controlling PMO considering the size of projects and problems because without heaving powers in this kind of projects you can't penetrate the new policies and norms in the organization. Actually they already have many mega projects and the urgently need PMO with high powers and better control policy, otherwise they will lose the market value and demand.

4. Establishment of PMO in DWP Group:

In this organization PMO will have following.

4.2. DWP GROUP Vision:

PMO will indicate the problems, give them solutions and make the projects successful (with in cost, time and scope) at any terms and conditions.

4.3 PMO MISSION.

Before the end of 2020 DWP GROUP have to achieve maturity level 4.

4.4 Stakeholders:

DWP Group PMO will have following key stake holders.

- CEO
- Engineers
- Sales and Technical Sales
- Project managers

4.5 PMO Objectives in DWP GROUP:

PMO here in DWP GROUP will have following objectives.

- Implementation of project management policies, procedure and best management templates.
- Establishment of standardizes project team hierarchy.
- Increase the Customer satisfaction level.
- Decrease response time for any problem.
- Project tracking with the authority of rewards and fines.
- Minimize gap between production and sales.
- Increase quality by continuously feedback from user.
- Standardizing the process.
- Workers welfare policies.

4.6 PMO Roles and Responsibilities:

PMO will provide best project management policies, procedure and templates to the project staff for batter control and improvement is results.

PMO will continuously improve project management skills and make them a powerful project team to take strong and quick actions against issues (technically and commercially) to give better results.

PMO will refine and improve Project plans that will advances with time. it means continuous development from upper management to technical works.

It will maintain a sense of urgency in the work which is compulsory in competitive environment.

As PMO have strong co-ordination with upper management so it will Take account of deliverables and project activities carefully.

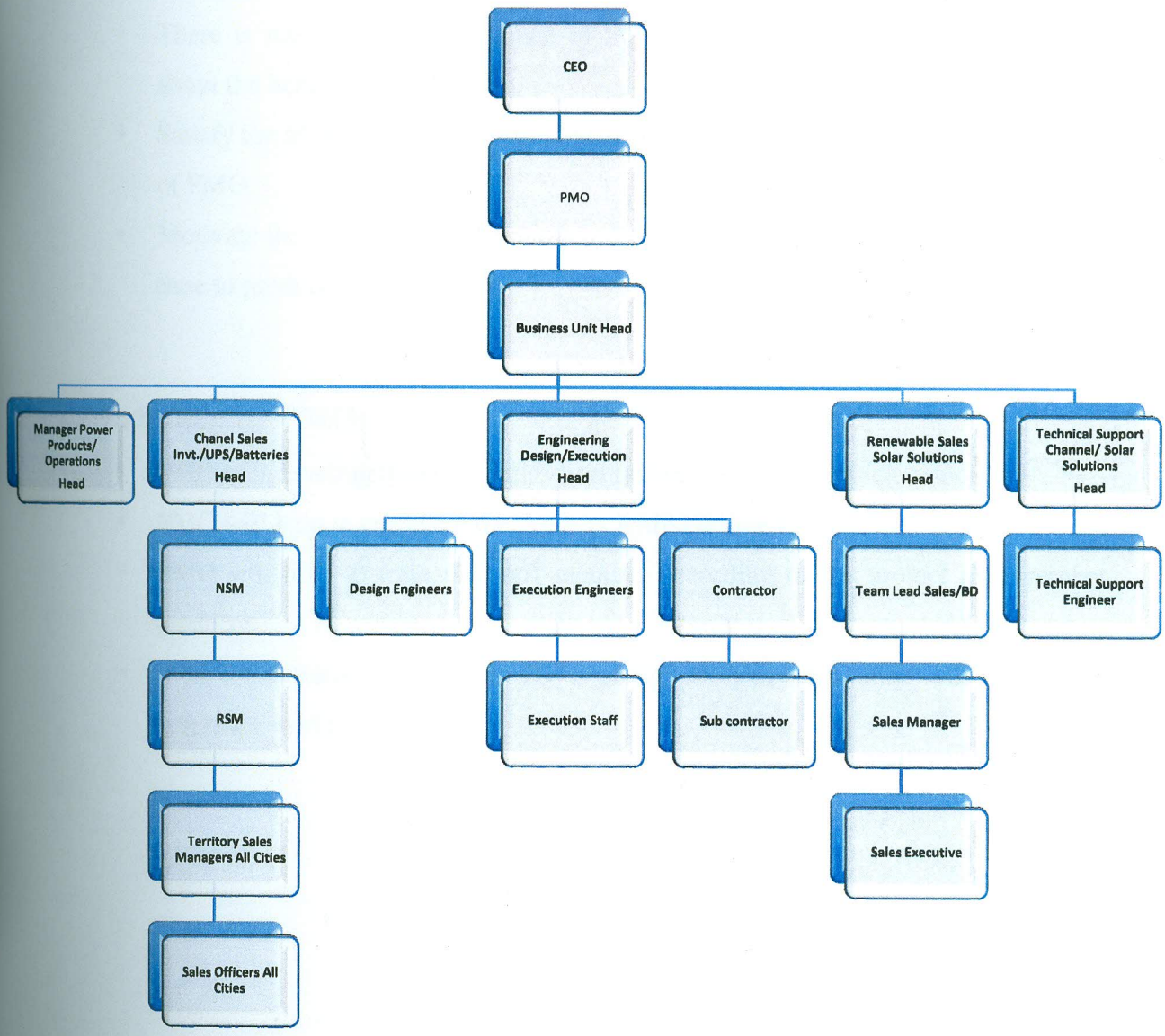
PMO will improve time, budget and quality of projects as they are very important in successful and long-term strategies.

No initially but after starting project management practices in DWP Group, PMO will also help top management in strategic decisions.

4.7 Success factors:

Support from CEO.
PMO should have authorities of fine and rewards.
Regular communications and meetings with stakeholders.
Monthly report.
Continuous improvement
Corporative environment

4.8 Suggested Organizational Structure:



5. Challenges for PMO establishment:

- Staff is not willing to change their traditional style of work. In case the PMO establishment they will resist a lot.
- There is need to take confidence of Stakeholders as they are not much aware about the benefits of PMO.
- Satisfy the Management about the funding required for implementation/ execution of PMO
- Motivate the stakeholder continuously for PMO existence, as it will require some time to produce results

6. Value addition by PMO:

- PMO will developed a strong and short documentation for quick response.
- PMO will help to complete the projects within defined budget and time.
- PMO will help to train the staff member according to the project management practices.
- With the existence of PMO in DWP group, company reputation will increase in corporate world.

7. Project Documents:

Following documents are attached with this file to explain this project demonstration.

7.1. Project Charter.

7.2. Project Scope Statement.

7.3. Resource Sheet.

7.4. Work Breakdown Structure (WBS).

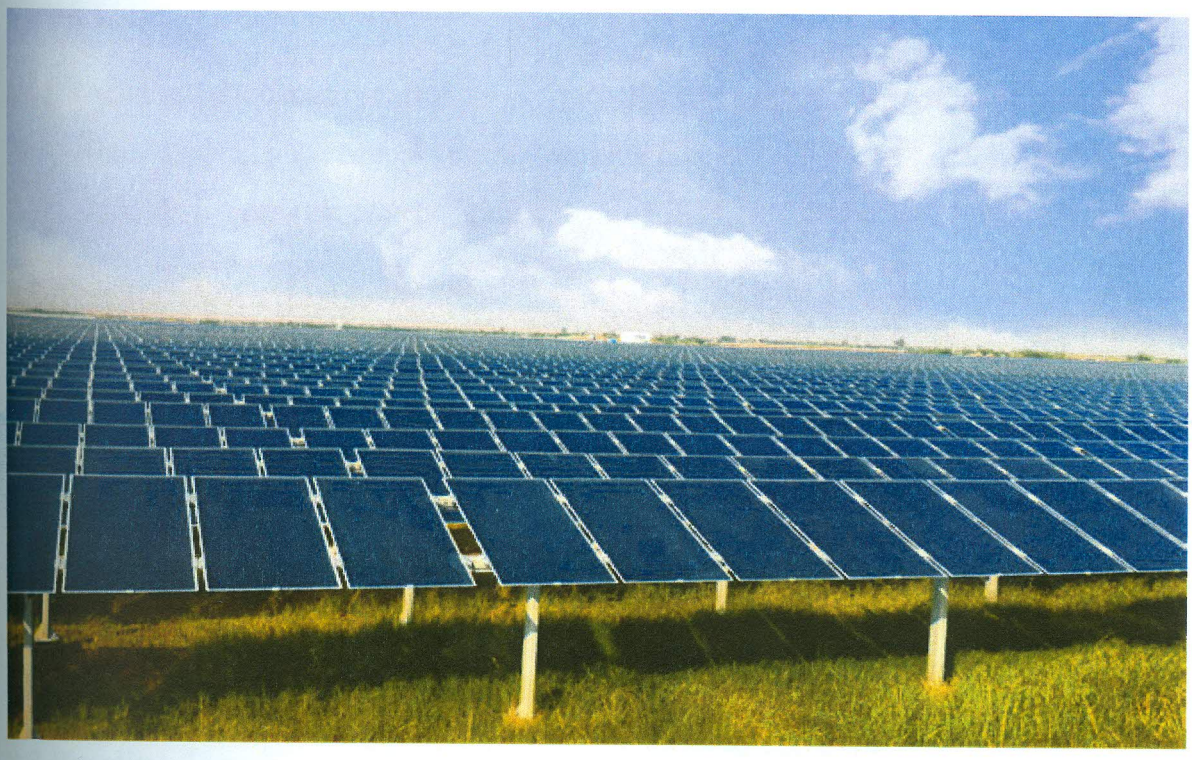
7.5. Project Schedule

7.6. Network Diagram.

7.7. Snapshots/View from Microsoft Project.

7.8. Reports from Microsoft Project

8. Project charter



8.1 Introduction

DWP group is going to install 1MW PV project in 1500 meter square in Unilever to fulfill the electricity demand and they want to get ride from load sheading. Now a day solar is highly reliable source of power generation in industrial and commercial level.

8.2 Project Title.

Unilever - 1 MWp On-Grid Solar Power Project

8.3 High Level Deliverables:

The scope of work or deliverables of this project include:

- Piling
- Solar Panels mounting
- LT and MV panels installation
- Control and LV cables laying and terminations

- Commissioning of 1MW System

8.4 Objectives:

- Achieve 16% capacity factor
- Uninterrupted power supply during working hours.
- 1531Mwh/Year energy generation

8.5 Acceptance Criteria.

- 75% plant performance ration
- All electrical and civil works and material will be accepted according to approved drawings.
- Load test and health of plant will be insured and certified from 3rd party.

8.6 Baseline Budget:

Baseline Budget for this project is125 million PKR.

8.7 Baseline Timelines:

Total time for project execution will be 1 Year.

8.8 Assumptions:

- Weather condition are very good for the full efficiency of solar modules.
- Payment terms and condition will be fulfilling as per contract.
- Assuming no mega design change will accurse during implementation.
- All imported equipment will reach in Pakistan without any delay (Political/floods/earth quick).
- Timely payments will be released for procurement.

8.9 CONSTRAINTS:

- Shortage of imported material in local market.
- Before the team mobilization land should be free for execution.

8.10 High level risk.

- Shortage of Imported material
- Efficiency of PV modules and inverters
- Weather condition
- Shortage of Technical staff.
- Shortage of Experience workers.
- Availability of contractor on time.
- Timely issuance of work order from client on daily basis

8.11 Roles and responsibilities:

Name	Role	Responsibilities
DWP group	Contractor	Provide Technical staff, workers, Testing, procurement, Resources, Guidelines and Direction from start to end of Project.
Unilever	Project Client	Providing timely approvals for tasks. Approving any major changes in scope of project. Providing final acceptance upon project completion.
Mr.RanaFarhan Qurban	Project Manager	Authorized to hire fire and manage human resources. Acquire, controlling, reporting and insuring compliance, assign or release resources on site.
Project team		Work under the supervision of project manager, execute and maintain all documents related this project.

8.12 PM AUTHORITY:

Project Manager is authorized to hire fire and manage human resources. Acquire, assign or release resources on site. He is authorized to change work plan, forward budget change request to sponsor. He is also authorized to manage budget changes when it is less than 5%.

8.13 APPROVAL:

Name _____

Designation_____

Sign _____

Date_____

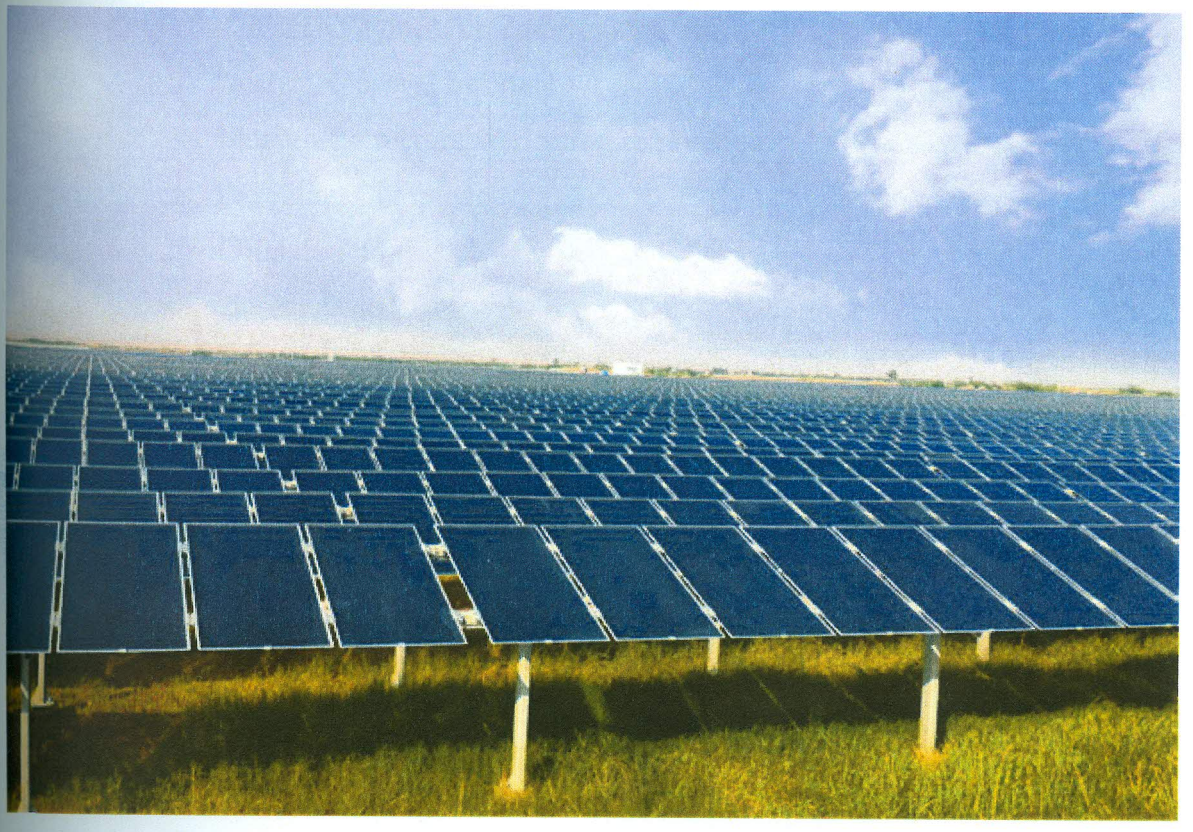
Name _____

Designation _____

Sign _____

Date _____

9. Project Scope Statement:



Project Scope statement includes project justifications, project scope, assumptions, constraint, deliverables and milestones. It may also include technical data of project.

9.1. Project Justification.

Unilever is going to install 1 megawatt PV project to fulfill their electricity consumption and reduction in the bills. They also want to reduce the carbon generation by installing green energy power plant.

9.2. Objectives.

Objective of this project is to complete 1 MW PV project within 125 million PKR and within 1 year.

9.3. Millstones list.

1) Advance Payment on contract sign off.
2) Design Approval by client
3) Mounting structure fabrication completion
4) Execution Completion
5) Commissioning
6) Project closed

9.4. Deliverables.

1) 3420 PV module of 310w each will install in project
2) 30 inverters of 30kWac
3) LT panels and cables
4) MV transformers and cables
5) DC and ac cable
6) Combiner Boxes
7) Civil structure
8) Control room
9) Fire alarm system

9.5. Constraints and assumptions:

1) Whole power plants design will fulfill the ISO9000 basic requirements and standards.
2) Shortage of imported material in local market.
3) Before the team mobilization land should be free for execution
4) Weather conditions are very good for the full efficiency of PVC plates.
5) Payment terms and condition will be fulfilling as per contract.
6) Assuming no mega design change will accurse during implementation.
7) All imported equipment will reach in Pakistan without any delay (Political/floods/earth quick).
8) Timely payments will be released for procurement.

9.6. Technical specifications:

9.6.1 Civil works.

All civil works which includes transformers paid, combiner boxes paid, control rooms building civil structure of PV modules should fulfill ISO 9000 standards and clear all tests which are primarily decided between client and contractor. All civil works will be done with 2/4/10 recipe.

9.6.2 PV modules.

All modules will be of 310w and all modules should be from tire 1.

9.6.3 Cable DC/LV/MV.

Only following companies cables are allowed to install using PVC glandes according to cable size.

1. Pakistan cables
2. Fast cables
3. Shama cables

9.6.4 Cable laying.

All cables laying will be through proper cable tray (14 gauge). Only MV cable will direct burial using cable indicators.

9.6.5 LT panels.

All LT panels should be European brand and design on 65k short circuit level.

9.6.6 MV panels

All MV panels should be European brand and design on 65k short circuit level.

9.6.7 Earthing of Equipment.

After every 50meter there will be a earthing pit which should have resistance less than 0.5 ohm and all the earthing pits will be parallel attached and have common mesh using 70mm bare conductor from earthing pits to every equipment All conductors should be copper with 99.9% purity.

9.6.8 HMI System.

There should be monitoring and control system in control room which may be based on PLC and have all features of HMI system which may able to transmit data from control room to control center and control tower.

9.6.9 Piling.

All piling and mounting structure fabrication will be carried by ISO 9001 approved company. Depth of pile will be according to the soil test report.

10. MS Project Sheets:

The schedule for the selected project has been prepared in Microsoft Project. This section contains views and reports created from Microsoft Project for 1 MW on grid PV project. The project is in progress. Some Tasks have been completed while rest is in progress.

The below mentioned are present in the following section:

1. Project Schedule
2. Gantt Chart
3. Network Diagram
4. Earned Value
5. S- Curve

10.1 Project Schedule:

ID	Task Mode	Task Name	Duration	Start	Finish
1		**Unilever - 1 MWp Solar Power Project**	**260.5 days**	**Mon 1/2/17**	**Mon 11/27/17**
2	✓	**Project Initiation**	**2 days**	**Mon 1/2/17**	**Tue 1/3/17**
3	✓	Contract Sign-off	1 day	Mon 1/2/17	Mon 1/2/17
4	✓	Project Kick-off	1 day	Tue 1/3/17	Tue 1/3/17
5	✓	Advance Payment	0 days	Tue 1/3/17	Tue 1/3/17
6	✓	**System Designing**	**30 days**	**Wed 1/4/17**	**Wed 2/8/17**
7	✓	**Basic Design**	**30 days**	**Wed 1/4/17**	**Wed 2/8/17**
8	✓	Specifications of Solar Panels	1 day	Wed 1/4/17	Wed 1/4/17
9	✓	Specifications of Inverters	2 days	Thu 1/5/17	Sat 1/7/17
10	✓	Specifications of Environment Monitoring system	3 days	Sat 1/7/17	Wed 1/11/17
11	✓	Net-Metering Specifications	3 days	Wed 1/11/17	Sat 1/14/17
12	✓	Specifications of HT Transformer	2 days	Sat 1/14/17	Tue 1/17/17
13	✓	Specifications of LV Transformer	2 days	Tue 1/17/17	Thu 1/19/17
14	✓	Cable Specifications	3 days	Thu 1/19/17	Mon 1/23/17
15	✓	Panel Frame Specification Details	3 days	Mon 1/23/17	Thu 1/26/17
16	✓	Submission to Unilever	1 day	Thu 1/26/17	Fri 1/27/17
17	✓	Approvals by Unilever	10 days	Fri 1/27/17	Wed 2/8/17
18	✓	**Detailed Design**	**16 days**	**Wed 2/8/17**	**Mon 2/27/17**
19	✓	General Layout	3 days	Wed 2/8/17	Sat 2/11/17
20	✓	Single Line Diagram	3 days	Wed 2/8/17	Sat 2/11/17
21	✓	Plant Monitoring Details	3 days	Wed 2/8/17	Sat 2/11/17
22	✓	Wiring & Interconnection Diagrams	3 days	Wed 2/8/17	Sat 2/11/17
23	✓	Control Room Layout - General Arrangement	3 days	Wed 2/8/17	Sat 2/11/17
24	✓	Solar Panel Installation layout (Typical)	5 days	Wed 2/8/17	Tue 2/14/17

Project: Final Project 1 MW
Date: Thu 6/15/17

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

Page 1

ID	Task Mode	Task Name	Duration	Start	Finish
49		Grounding Cables Ordering	1 day	Tue 2/28/17	Tue 2/28/17
50		Grounding Cables Devivery	1 day	Wed 5/17/17	Thu 5/18/17
51		Screw Piles Pull Test Ordering	1 day	Tue 2/28/17	Tue 2/28/17
52		Screw Piles with Mounting Frames Ordering	1 day	Tue 2/28/17	Tue 2/28/17
53		Screw Piles with Mounting Frames Delivery Lot1	1 day	Mon 3/13/17	Tue 3/14/17
54		Screw Piles with Mounting Frames Delivery Lot2	1 day	Mon 3/27/17	Tue 3/28/17
55		Screw Piles with Mounting Frames Delivery Lot3	1 day	Sat 4/8/17	Mon 4/10/17
56		MV Transformer with Protection Panel Ordering	1 day	Tue 2/28/17	Tue 2/28/17
57		MV Transformer with Protection Panel Delivery	1 day	Tue 5/16/17	Wed 5/17/17
58		Utility Transformer Ordering	1 day	Tue 2/28/17	Tue 2/28/17
59		Utility Transformer Delivery	1 day	Tue 5/16/17	Wed 5/17/17
60		LV Panel Ordering	1 day	Tue 2/28/17	Tue 2/28/17
61		LV Panel Delivery	1 day	Thu 5/18/17	Fri 5/19/17
62		Water Distribution Network Ordering	1 day	Tue 2/28/17	Tue 2/28/17
63		Control Room Ordering	1 day	Tue 2/28/17	Tue 2/28/17
64		Lightning Structure Ordering	1 day	Tue 2/28/17	Tue 2/28/17
65		Lightning Structure Delivery	1 day	Sat 5/13/17	Mon 5/15/17
66		Combiner Box Ordering	1 day	Tue 2/28/17	Tue 2/28/17
67		Combiner Box Delivery	1 day	Wed 5/24/17	Thu 5/25/17
68		Fire Alarm System P.O. Issuance	1 day	Tue 2/28/17	Tue 2/28/17
69		Air Conditioner Ordering	1 day	Tue 2/28/17	Tue 2/28/17
70		Air Conditioner Delivery	1 day	Wed 3/22/17	Thu 3/23/17
71		Consumables Ordering	1 day	Tue 2/28/17	Tue 2/28/17
72		Transpotation, Consultency, HSE , etc	1 day	Tue 2/28/17	Tue 2/28/17

Project: Final Project 1 MW
Date: Thu 6/15/17

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

ID	Task Mode	Task Name	Duration	Start	Finish
73		Consumables Delivery	120 days	Sat 3/18/17	Tue 8/22/17
74	✓	**Fabrication & On-Site Installation**	**52 days**	**Wed 3/1/17**	**Thu 5/4/17**
75	✓	**Civil Works**	**52 days**	**Wed 3/1/17**	**Thu 5/4/17**
76	✓	Screw Pile Pull Test	5 days	Fri 3/3/17	Thu 3/9/17
77	✓	Control Room (Incl. Lighting, Doors and ACs)	52 days	Wed 3/1/17	Thu 5/4/17
78	✓	Excavation on site	8.88 days	Wed 3/1/17	Sat 3/11/17
79	✓	Water Distribution Network	45 days	Tue 3/7/17	Sat 4/29/17
80		**Panels Structure Fabriation**	**201.5 days**	**Mon 3/13/17**	**Mon 11/27/17**
81	✓	Piles Fabrication	17.88 days	Mon 3/13/17	Tue 4/4/17
82	✓	Piles Galvanization	7 days	Fri 3/31/17	Sat 4/8/17
83	✓	Aluminum Dye Fabrication	28.63 days	Sat 4/8/17	Sat 5/13/17
84	✓	Aluminum Extrusion	30 days	Wed 4/26/17	Fri 6/2/17
85	✓	Aluminum Fabrication	10 days	Mon 5/15/17	Fri 5/26/17
86	✓	Mounting Clamps Fabrication	20 days	Fri 3/31/17	Mon 4/24/17
87	✓	Connecting Element Procurement	30 days	Fri 3/31/17	Mon 5/8/17
88	✓	Fabrication Completed	0 days	Fri 6/2/17	Fri 6/2/17
89		**Panels Structure, Panels & Cabling Works**	**100.38 days**	**Mon 5/1/17**	**Tue 9/12/17**
90		Pile Driving	45 days	Sat 6/3/17	Thu 8/3/17
91		Lintel & Mounting Rail Installation	34 days	Tue 7/11/17	Tue 8/22/17
92		Panels Mounting	44 days	Mon 7/17/17	Tue 9/12/17
93	✓	Installation of Utility & MV Transformer	3 days	Mon 5/15/17	Thu 5/18/17
94	✓	LV Panel & MV protection Panel Installation	5 days	Mon 5/15/17	Sat 5/20/17
95	✓	Inverters Installation	4.88 days	Mon 5/1/17	Sat 5/6/17
96		DC Cable Laying & Termination	63 days	Thu 5/25/17	Fri 8/18/17

Project: Final Project 1 MW
Date: Thu 6/15/17

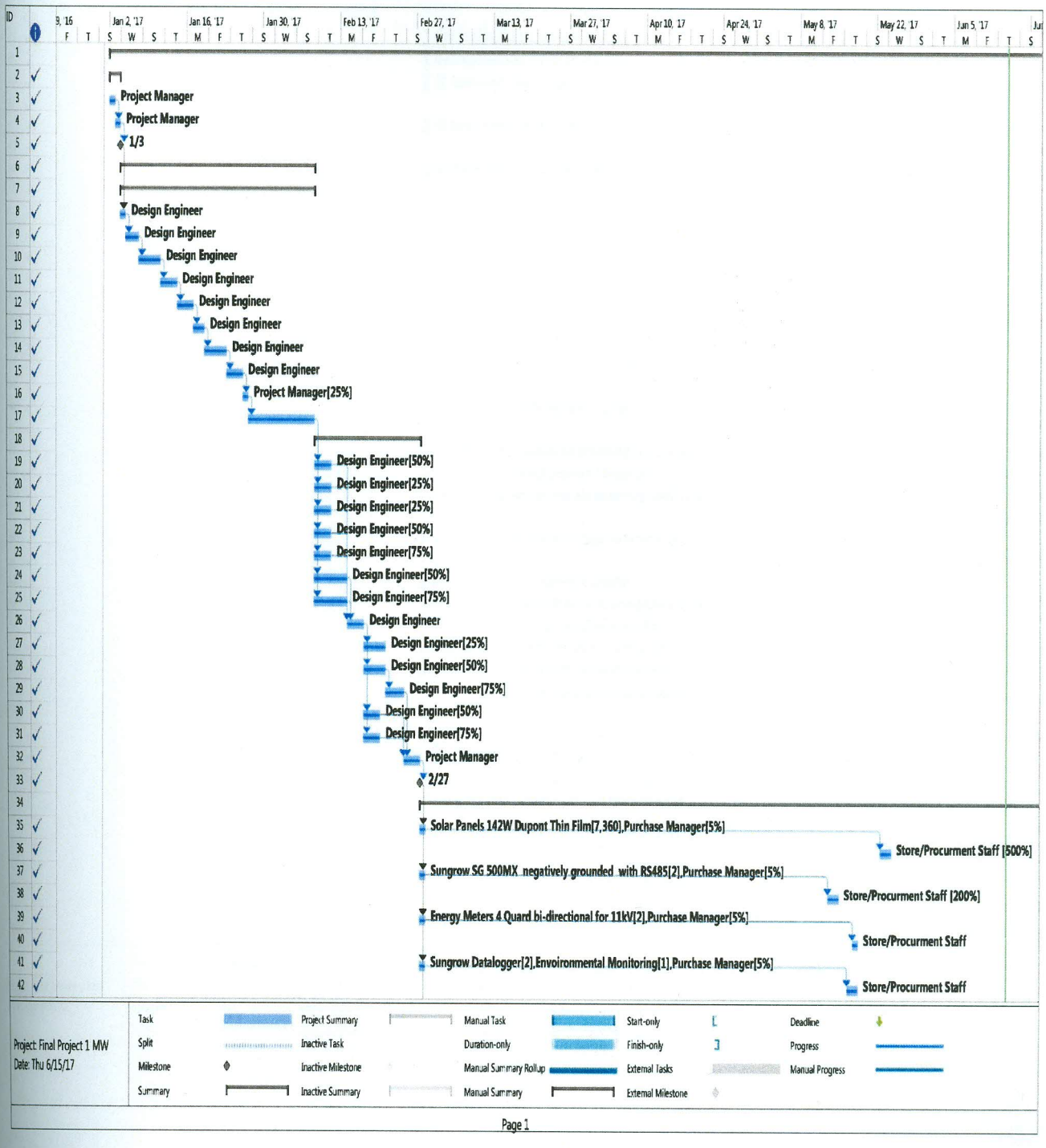
Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

ID	Task Mode	Task Name	Duration	Start	Finish
97		AC Cable Laying & Termination	63 days	Thu 6/8/17	Wed 8/30/17
98		Earthing Rods & Lightning Poles Installation	30 days	Thu 5/25/17	Sat 7/8/17
99	✓	Grounding Cable Laying & Termination	30.5 days	Wed 5/10/17	Mon 6/19/17
100	✓	Fire Alarm System Installation	7.75 days	Fri 6/9/17	Tue 6/20/17
101	✓	Environmental Monitoring System Installation	2 days	Thu 7/6/17	Sat 7/8/17
102		Data Logging System Installation	2 days	Thu 7/6/17	Sat 7/8/17
103		Net Metering Installation	2 days	Thu 7/6/17	Sat 7/8/17
104		Combiner Box Installation	7 days	Thu 7/13/17	Fri 7/21/17
105		Execution Completed	0 days	Tue 9/12/17	Tue 9/12/17
106		**Commissioning/Start-up**	**49 days**	**Wed 8/30/17**	**Thu 11/2/17**
107		Commissioning and Plant Start-up	16 days	Wed 8/30/17	Thu 9/21/17
108		Functional Test(Client Witness)	30 days	Thu 9/21/17	Mon 10/30/17
109		Functional Test Report Submission and Approval	3 days	Mon 10/30/17	Thu 11/2/17
110		Commissioning Completed	0 days	Thu 11/2/17	Thu 11/2/17
111		**Handing Over**	**20 days**	**Thu 11/2/17**	**Mon 11/27/17**
112		Operational Manual	1 day	Thu 11/2/17	Fri 11/3/17
113		As-Builts	10 days	Thu 11/2/17	Tue 11/14/17
114		Training of O&M Staff (On-Site)	20 days	Thu 11/2/17	Mon 11/27/17
115		**Project Closure**	**1 day**	**Tue 11/14/17**	**Wed 11/15/17**
116		Sign-off/Feedback	1 day	Tue 11/14/17	Wed 11/15/17
117		Project Closed	0 days	Wed 11/15/17	Wed 11/15/17

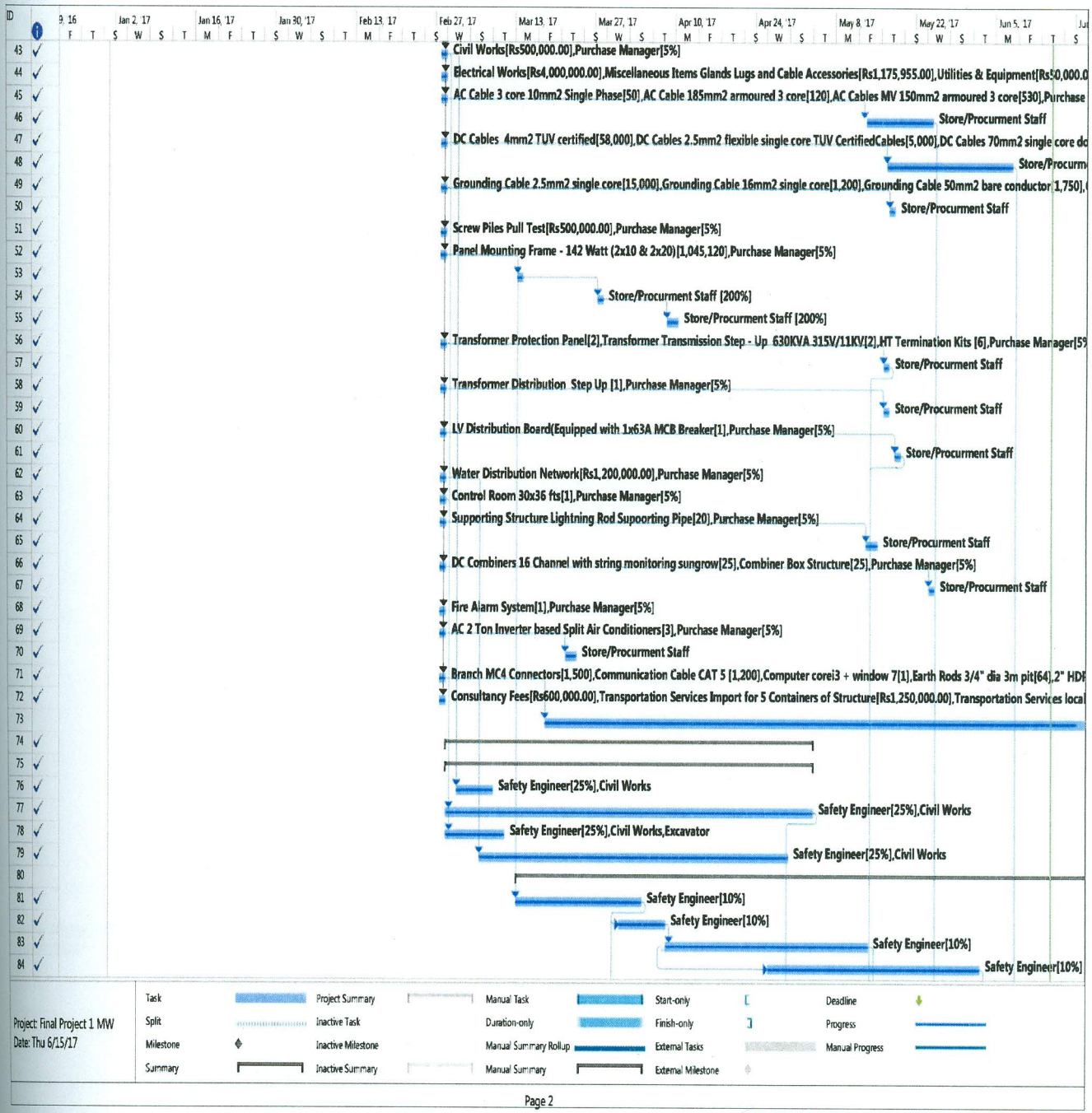
Project: Final Project 1 MW
Date: Thu 6/15/17

Task	Inactive Summary	External Tasks
Split	Manual Task	External Milestone
Milestone	Duration-only	Deadline
Summary	Manual Summary Rollup	Progress
Project Summary	Manual Summary	Manual Progress
Inactive Task	Start-only	
Inactive Milestone	Finish-only	

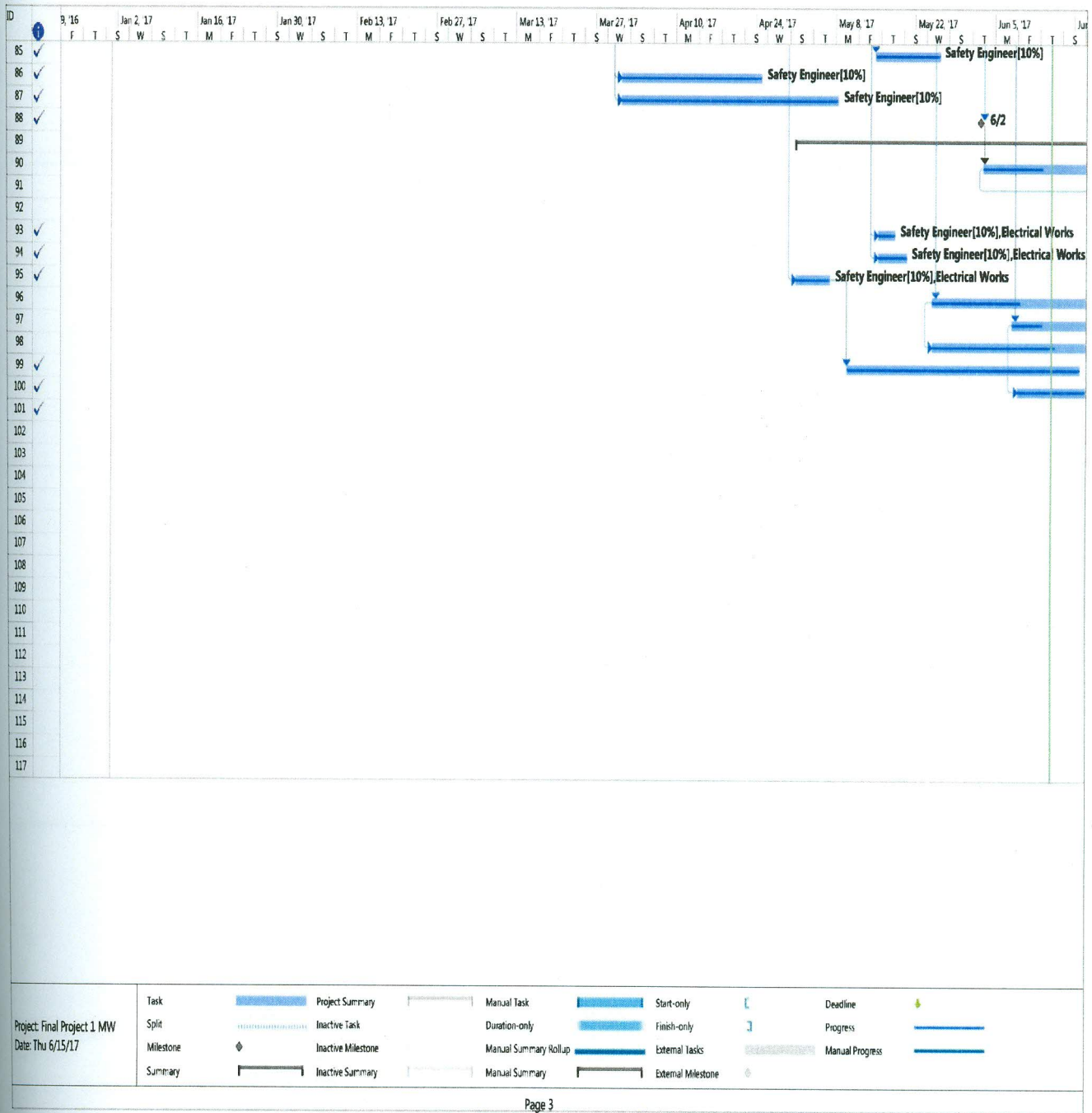
10.2 Gantt Chart:



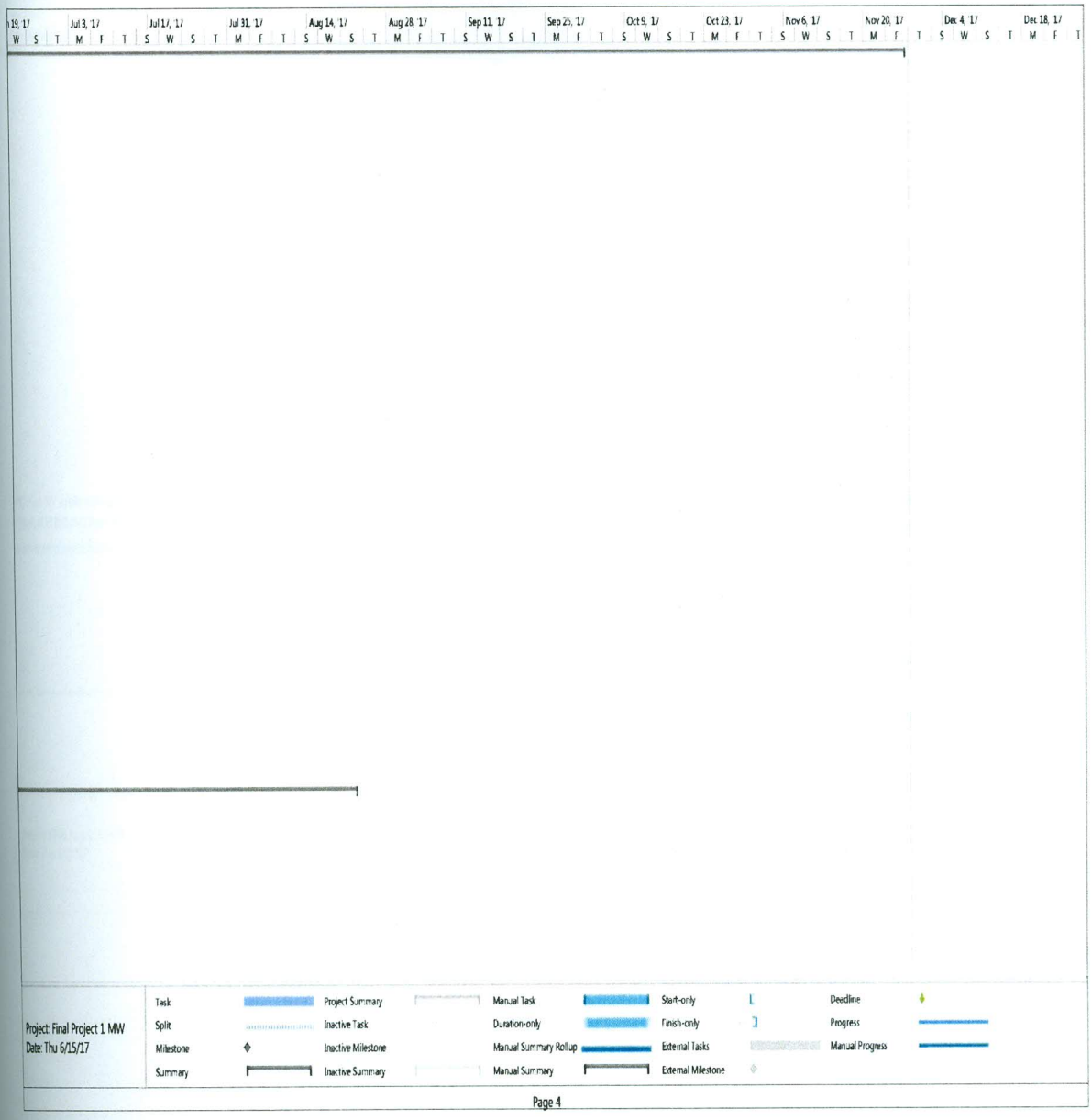
1 MW on Grid PV Project



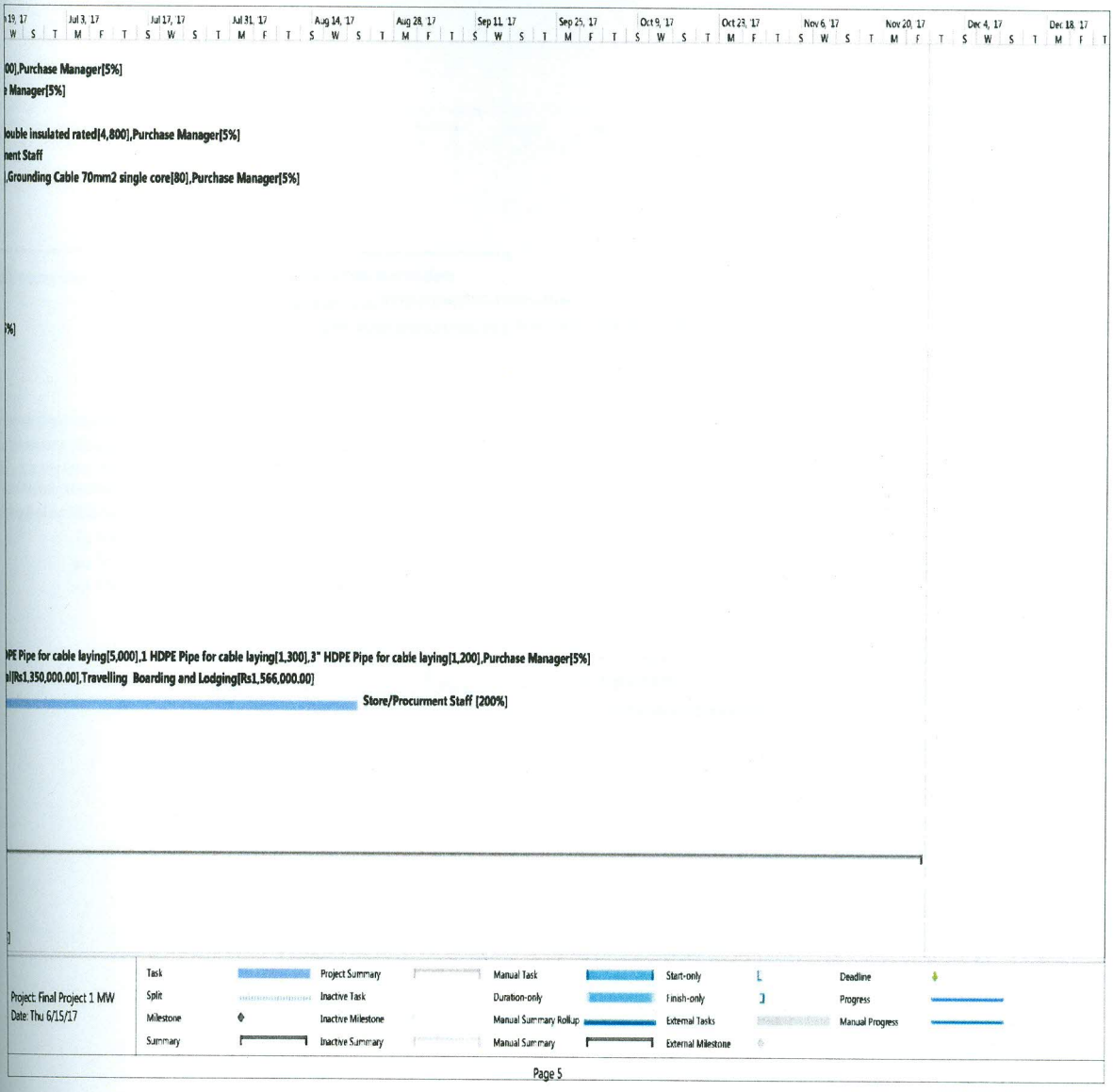
1 MW on Grid PV Project



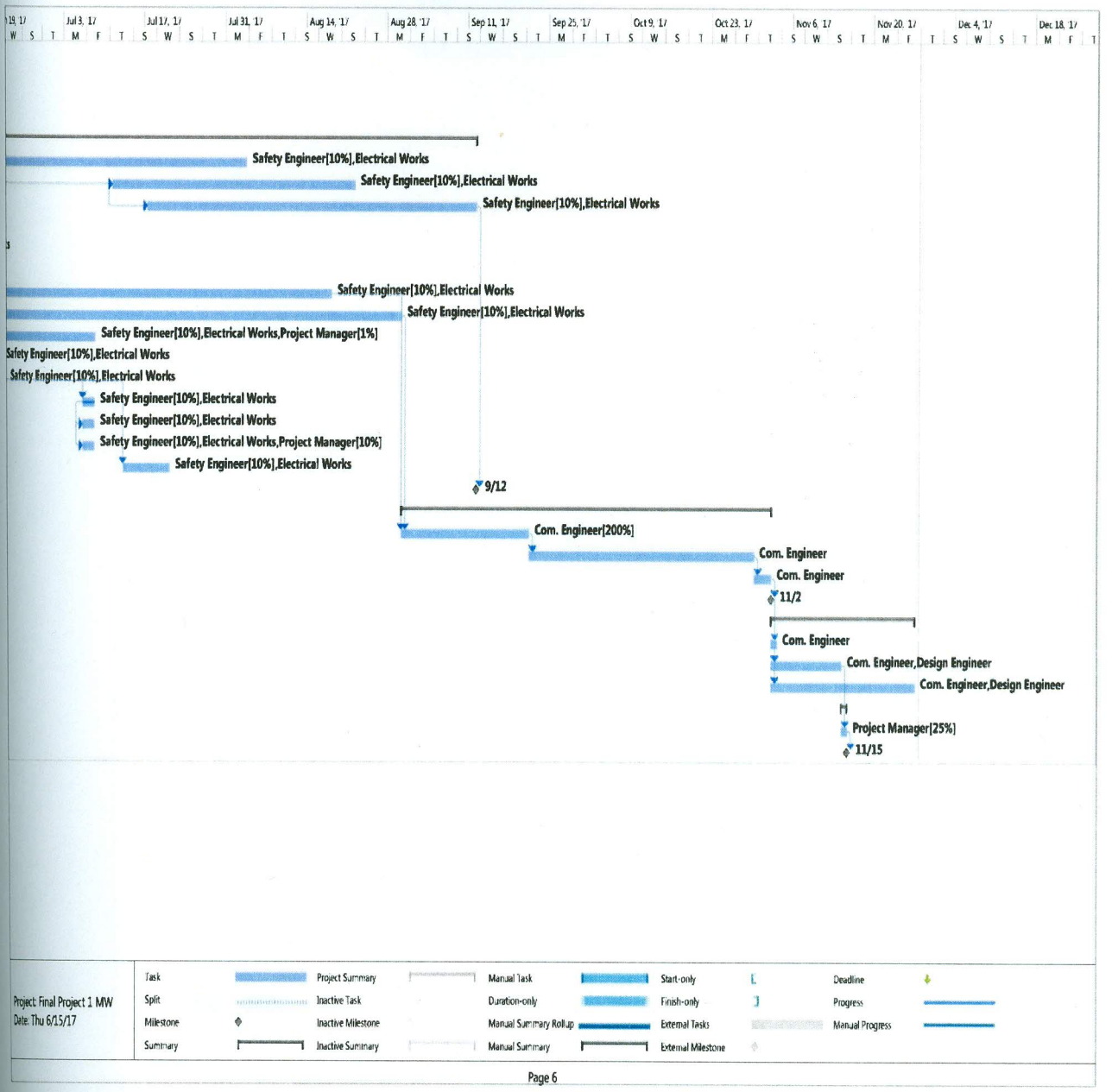
1 MW on Grid PV Project



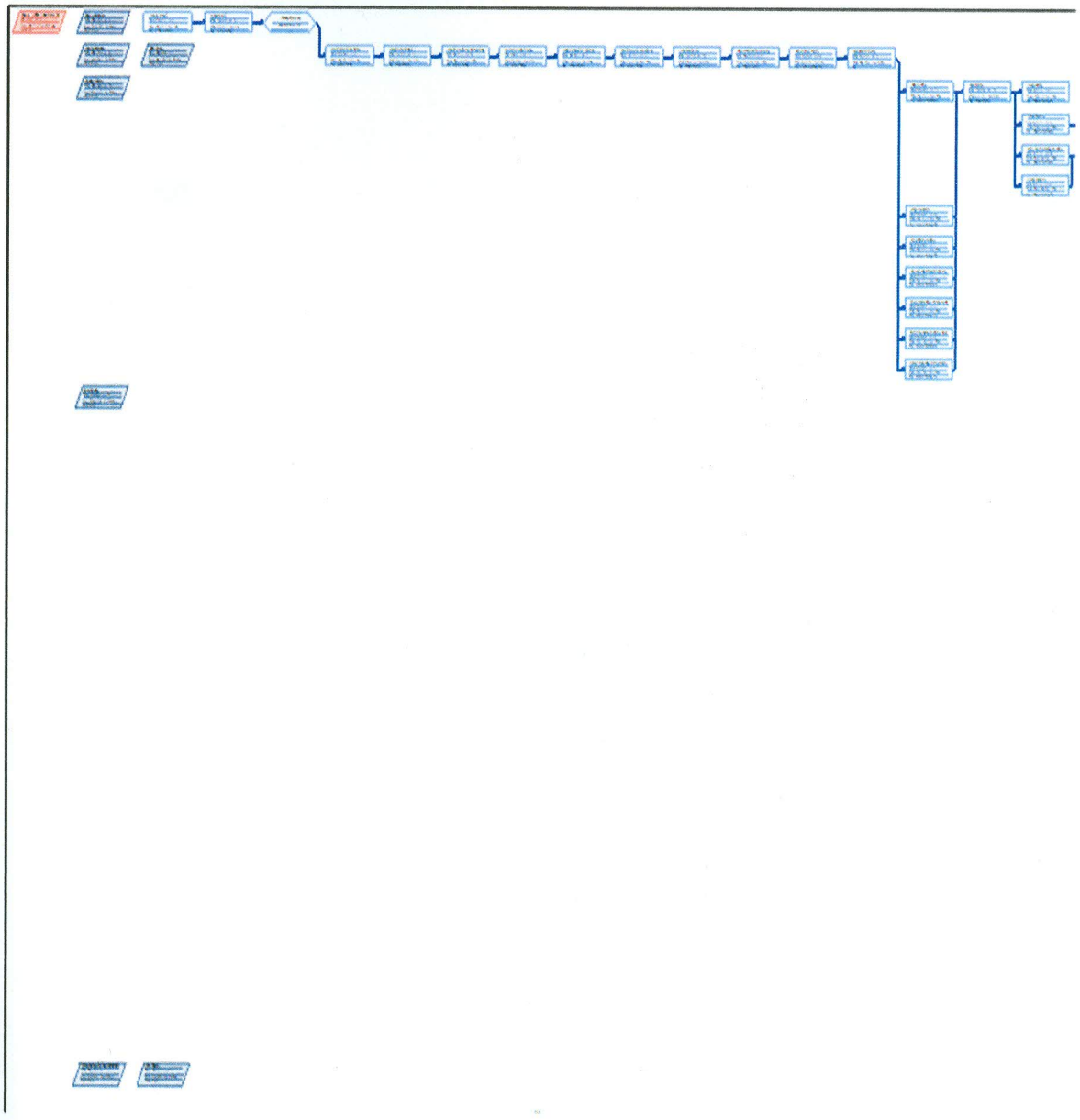
1 MW on Grid PV Project

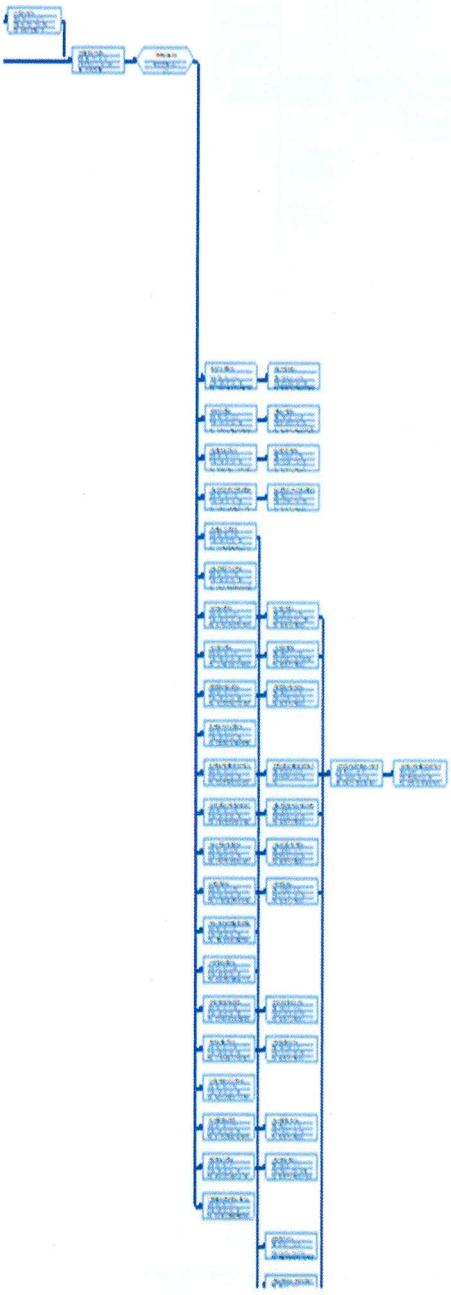


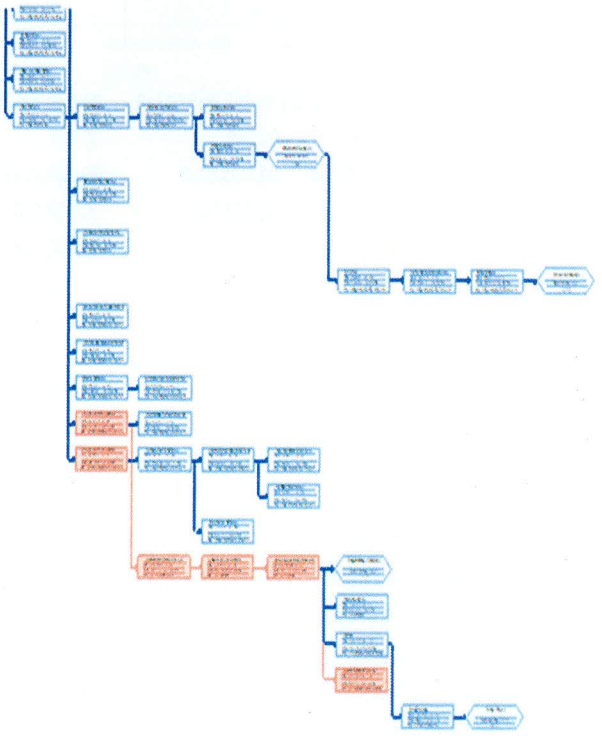
1 MW on Grid PV Project



10.3 Network diagram







10.4 Earned Value:

ID	Task Name	Planned Value - PV (BCWS)	Earned Value - EV (BCWP)	AC (ACWP)	SV	CV	VAC	SPI	CPI
1	**Unilever - 1 MWp Solar**	**Rs110,095,090.50**	**Rs110,086,741.65**	**110,095,772.38**	**Rs8,348.85)**	**Rs9,030.73)**	**s10,182.02)**	1	1
2		Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0
3	**Project Initiation**	**Rs15,000.00**	**Rs15,000.00**	**Rs15,000.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	1	1
4	Contract Sign-off	Rs7,500.00	Rs7,500.00	Rs7,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
5	Project Kick-off	Rs7,500.00	Rs7,500.00	Rs7,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
6	Advance Payment	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0
7	**System Designing**	**Rs77,875.00**	**Rs77,875.00**	**Rs77,875.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	1	1
8	**Basic Design**	**Rs77,875.00**	**Rs77,875.00**	**Rs77,875.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	1	1
19	**Detailed Design**	**Rs107,000.00**	**Rs107,000.00**	**Rs107,000.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	1	1
20	General Layout	Rs6,000.00	Rs6,000.00	Rs6,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
21	Single Line Diagram	Rs3,000.00	Rs3,000.00	Rs3,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
22	Plant Monitoring	Rs3,000.00	Rs3,000.00	Rs3,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
23	Wiring &	Rs6,000.00	Rs6,000.00	Rs6,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
24	Control Room	Rs9,000.00	Rs9,000.00	Rs9,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
25	Solar Panel	Rs10,000.00	Rs10,000.00	Rs10,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
26	Inverter Installation	Rs15,000.00	Rs15,000.00	Rs15,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
27	Detailed BOQ	Rs12,000.00	Rs12,000.00	Rs12,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
28	Cable Schedule	Rs3,000.00	Rs3,000.00	Rs3,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
29	Lightning Layout	Rs6,000.00	Rs6,000.00	Rs6,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
30	Earthing Diagram	Rs9,000.00	Rs9,000.00	Rs9,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
31	Water Distribution	Rs4,000.00	Rs4,000.00	Rs4,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
32	Fire Alarm System	Rs6,000.00	Rs6,000.00	Rs6,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
33	Submission to	Rs15,000.00	Rs15,000.00	Rs15,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
34	Design Approval	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0

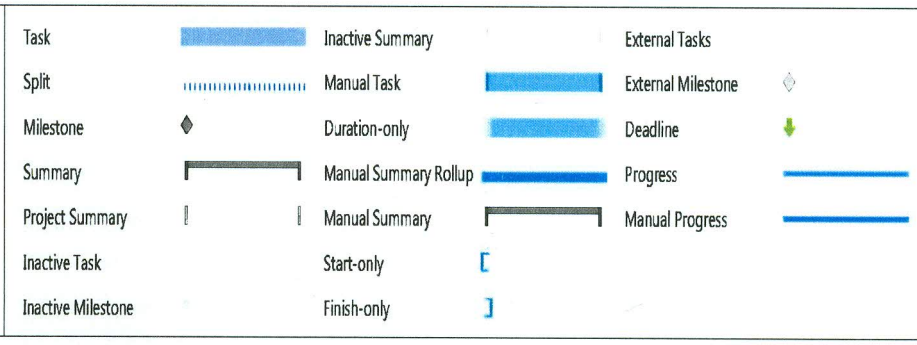
Project: Final Project 1 MW
Date: Thu 6/15/17

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

Page 1

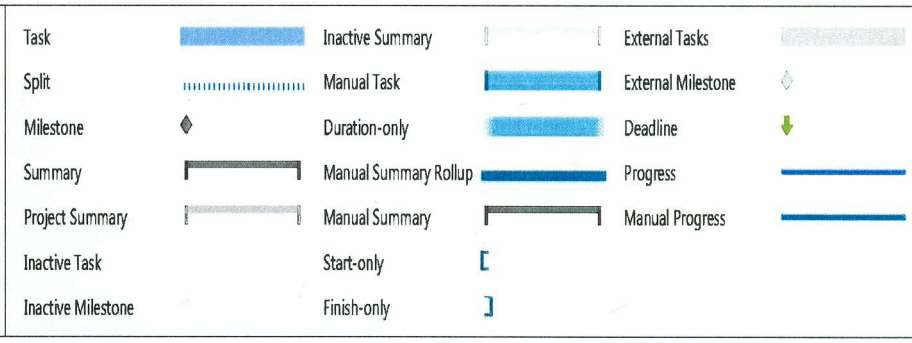
ID	Task Name	Planned Value - PV (BCWS)	Earned Value - EV (BCWP)	AC (ACWP)	SV	CV	VAC	SPI	CPI
35	**Procurement**	**Rs109,752,653.00**	**Rs109,749,728.00**	**109,751,059.25**	**Rs2,925.00)**	**Rs1,331.25)**	**Rs1,576.56)**	**1**	**1**
36	Solar Panel Ordering	Rs36,579,425.00	Rs36,579,425.00	s36,579,425.00	Rs0.00	Rs0.00	Rs0.00	1	1
37	Solar Panel Delivery	Rs7,500.00	Rs6,168.75	Rs7,500.00	Rs1,331.25)	Rs1,331.25)	Rs1,618.54)	0.82	0.82
38	Inverters Ordering	Rs6,801,885.00	Rs6,801,885.00	Rs6,801,885.00	Rs0.00	Rs0.00	Rs0.00	1	1
39	Inverters Delivery	Rs1,500.00	Rs1,500.00	Rs1,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
40	Net Metering	Rs90,225.00	Rs90,225.00	Rs90,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
41	Net Metering	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
42	Data Logging &	Rs502,120.00	Rs502,120.00	Rs502,120.00	Rs0.00	Rs0.00	Rs0.00	1	1
43	Data Logging &	Rs1,500.00	Rs1,500.00	Rs1,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
44	Civil Works P.O.	Rs225.00	Rs225.00	Rs225.00	Rs0.00	Rs0.00	Rs0.00	1	1
45	Electrical Works	Rs225.00	Rs225.00	Rs225.00	Rs0.00	Rs0.00	Rs0.00	1	1
46	AC Cables Ordering	Rs3,702,475.00	Rs3,702,475.00	Rs3,702,475.00	Rs0.00	Rs0.00	Rs0.00	1	1
47	AC Cables Delivery	Rs7,125.00	Rs7,125.00	Rs7,125.00	Rs0.00	Rs0.00	Rs0.00	1	1
48	DC Cables Ordering	Rs9,092,425.00	Rs9,092,425.00	Rs9,092,425.00	Rs0.00	Rs0.00	Rs0.00	1	1
49	DC Cables Delivery	Rs12,656.25	Rs12,656.25	Rs12,656.25	Rs0.00	Rs0.00	Rs0.00	1	1
50	Grounding Cables	Rs1,431,025.00	Rs1,431,025.00	Rs1,431,025.00	Rs0.00	Rs0.00	Rs0.00	1	1
51	Grounding Cables	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
52	Screw Piles Pull Test	Rs225.00	Rs225.00	Rs225.00	Rs0.00	Rs0.00	Rs0.00	1	1
53	Screw Piles with	Rs36,579,425.00	Rs36,579,425.00	s36,579,425.00	Rs0.00	Rs0.00	Rs0.00	1	1
54	Screw Piles with	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0
55	Screw Piles with	Rs1,500.00	Rs1,500.00	Rs1,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
56	Screw Piles with	Rs1,500.00	Rs1,500.00	Rs1,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
57	MV Transformer	Rs4,518,773.00	Rs4,518,773.00	Rs4,518,773.00	Rs0.00	Rs0.00	Rs0.00	1	1
58	MV Transformer	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1

Project: Final Project 1 MW
Date: Thu 6/15/17



ID	Task Name	Planned Value - PV (BCWS)	Earned Value - EV (BCWP)	AC (ACWP)	SV	CV	VAC	SPI	CPI
59	Utility Transformer	Rs196,225.00	Rs196,225.00	Rs196,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
60	Utility Transformer	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
61	LV Panel Ordering	Rs50,225.00	Rs50,225.00	Rs50,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
62	LV Panel Delivery	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
63	Water Distribution	Rs225.00	Rs225.00	Rs225.00	Rs0.00	Rs0.00	Rs0.00	1	1
64	Control Room	Rs3,000,225.00	Rs3,000,225.00	Rs3,000,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
65	Lightning Structure	Rs720,225.00	Rs720,225.00	Rs720,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
66	Lightning Structure	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
67	Combiner Box	Rs2,568,225.00	Rs2,568,225.00	Rs2,568,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
68	Combiner Box	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
69	Fire Alarm System	Rs850,225.00	Rs850,225.00	Rs850,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
70	Air Conditioner	Rs255,225.00	Rs255,225.00	Rs255,225.00	Rs0.00	Rs0.00	Rs0.00	1	1
71	Air Conditioner	Rs750.00	Rs750.00	Rs750.00	Rs0.00	Rs0.00	Rs0.00	1	1
72	Consumables	Rs2,664,525.00	Rs2,664,525.00	Rs2,664,525.00	Rs0.00	Rs0.00	Rs0.00	1	1
73	Transpotation,	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0
74	Consumables	Rs109,593.75	Rs108,000.00	Rs108,000.00	(Rs1,593.75)	Rs0.00	Rs0.00	0.99	1
75	**Fabrication & On-Site**	**Rs80,250.00**	**Rs80,250.00**	**Rs87,046.88**	**Rs0.00**	**Rs6,796.88)**	**Rs6,796.88)**	**1**	**0.92**
76	**Civil Works**	**Rs80,250.00**	**Rs80,250.00**	**Rs87,046.88**	**Rs0.00**	**Rs6,796.88)**	**Rs6,796.88)**	**1**	**0.92**
81	**Panels Structure**	**Rs62,312.50**	**Rs56,888.65**	**Rs57,791.25**	**Rs5,423.85)**	**(Rs902.60)**	**Rs9,243.92)**	**0.91**	**0.98**
82	Piles Fabrication	Rs3,750.00	Rs3,750.00	Rs4,468.75	Rs0.00	(Rs718.75)	(Rs718.75)	1	0.84
83	Piles Galvanization	Rs1,750.00	Rs1,750.00	Rs1,750.00	Rs0.00	Rs0.00	Rs0.00	1	1
84	Aluminum Dye	Rs7,156.25	Rs7,156.25	Rs7,156.25	Rs0.00	Rs0.00	Rs0.00	1	1
85	Aluminum	Rs7,500.00	Rs7,500.00	Rs7,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
86	Aluminum	Rs2,500.00	Rs2,500.00	Rs2,500.00	Rs0.00	Rs0.00	Rs0.00	1	1

Project: Final Project 1 MW
Date: Thu 6/15/17

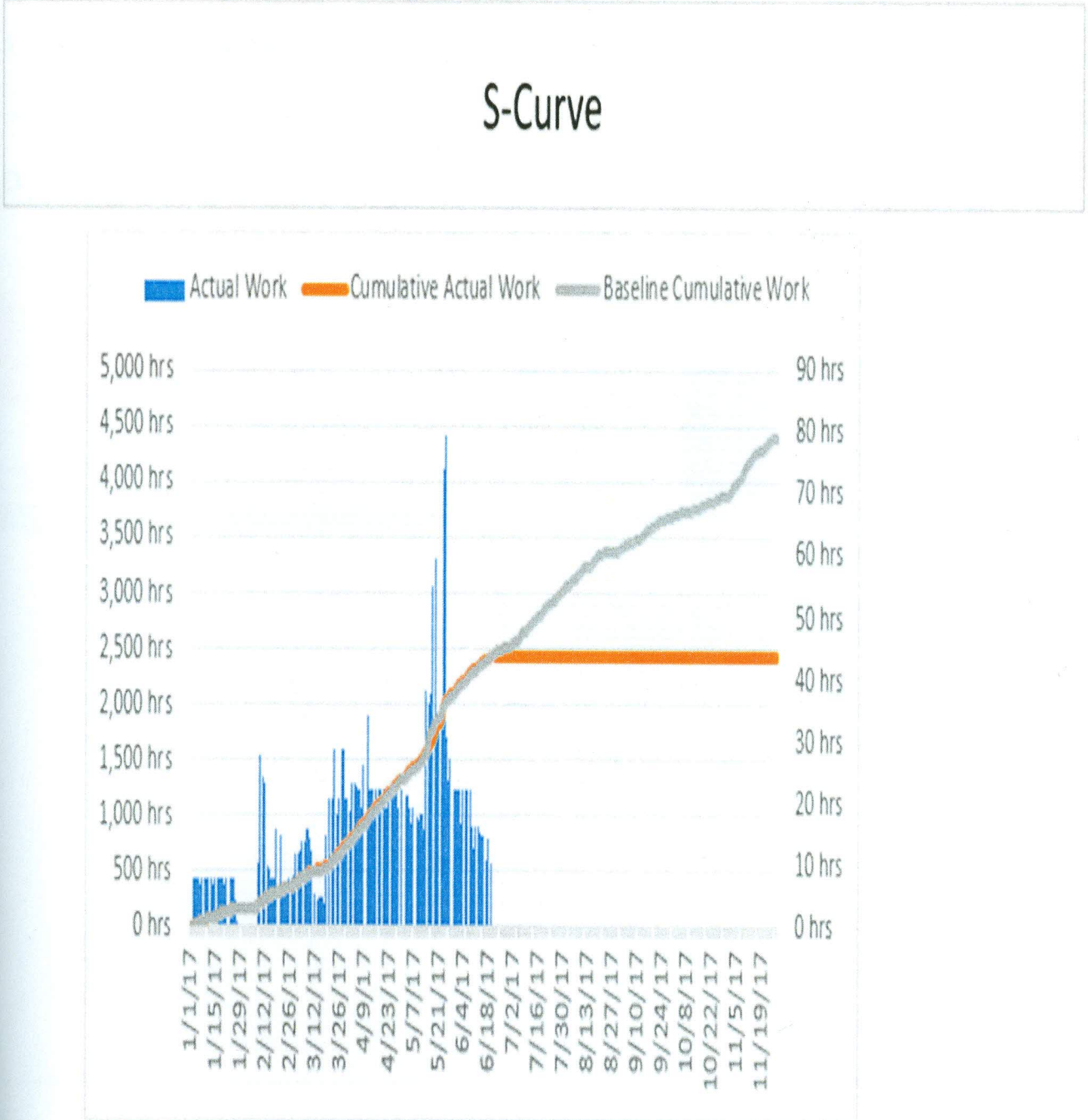


ID	Task Name	Planned Value - PV (BCWS)	Earned Value - EV (BCWP)	AC (ACWP)	SV	CV	VAC	SPI	CPI
87	Mounting Clamps	Rs5,000.00	Rs5,000.00	Rs5,000.00	Rs0.00	Rs0.00	Rs0.00	1	1
88	Connecting Element	Rs7,500.00	Rs7,500.00	Rs7,500.00	Rs0.00	Rs0.00	Rs0.00	1	1
89	Fabrication Complete	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	Rs0.00	0	0
90	**Panels Structure,**	**Rs27,156.25**	**Rs21,732.40**	**Rs21,916.25**	**Rs5,423.85)**	**(Rs183.85)**	**(Rs757.50)**	**0.8**	**0.99**
107		**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**0**	**0**
112	**Handing Over**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**0**	**0**
116	**Project Closure**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**Rs0.00**	**0**	**0**

Project: Final Project 1 MW
Date: Thu 6/15/17

Task		Inactive Summary		External Tasks	
Split		Manual Task		External Milestone	
Milestone		Duration-only		Deadline	
Summary		Manual Summary Rollup		Progress	
Project Summary		Manual Summary		Manual Progress	
Inactive Task		Start-only			
Inactive Milestone		Finish-only			

10.5 S-Curve:


S-Curve
Actual Work
Cumulative Actual Work
Baseline Cumulative Work
5,000 hrs
4,500 hrs
4,000 hrs
3,500 hrs
3,000 hrs
2,500 hrs
2,000 hrs
1,500 hrs
1,000 hrs
500 hrs
0 hrs
90 hrs
80 hrs
70 hrs
60 hrs
50 hrs
40 hrs
30 hrs
20 hrs
10 hrs
0 hrs
1/1/17
1/15/17
1/29/17
2/12/17
2/26/17
3/12/17
3/26/17
4/9/17
4/23/17
5/7/17
5/21/17
6/4/17
6/18/17
7/2/17
7/16/17
7/30/17
8/13/17
8/27/17
9/10/17
9/24/17
10/8/17
10/22/17
11/5/17
11/19/17

11. Projects Reports:

Some of project reports generated using MS Project are also attached.

11.1 Project Overviews:

PROJECT OVERVIEW

MON 1/2/17 - MON 11/27/17

% COMPLETE

59%

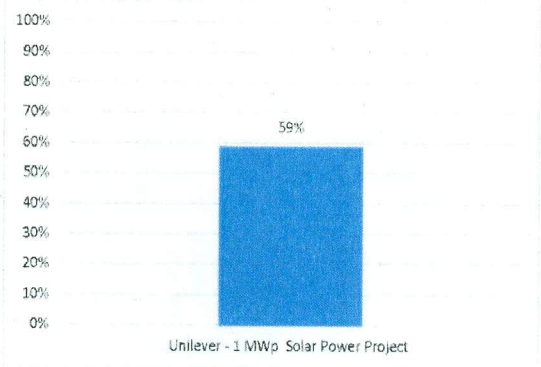
MILESTONES DUE

Milestones that are coming soon.

Name	Finish

% COMPLETE

Status for all top-level tasks. To see the status for subtasks, click on the chart and update the outline level in the Field List.



LATE TASKS

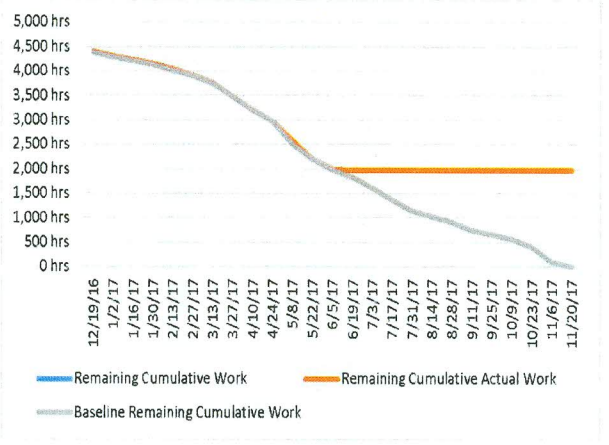
Tasks that are past due.

Name	Start	Finish	Duration	% Complete	Resource Names
	Mon 1/2/17	Mon 1/2/17	1 day?	0%	
Consumables Delivery	Sat 3/18/17	Tue 8/22/17	120 days	60%	Store/Procurment Staff [200%]

11.2 Burndown:

Mon 1/2/17 - Mon 11/27/17

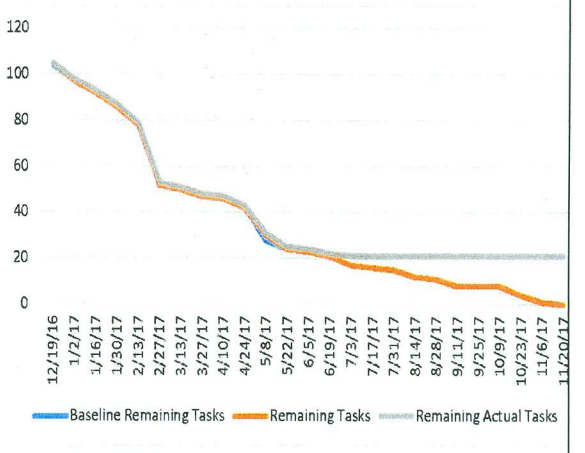
BURNDOWN



WORK BURNDOWN

Shows how much work you have completed and how much you have left. If the remaining cumulative work line is steeper, then the project may be late. Is your baseline zero?

Try setting a baseline



TASK BURNDOWN

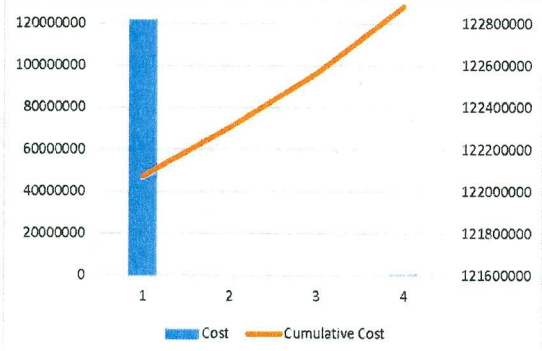
Shows how many tasks you have completed and how many you have left. If the remaining task is steeper, then your project may be late.

Learn more

11.3 Cash Flow:

CASH FLOW

Actual Cost	Baseline Cost	Remaining Cost	Cost Variance
Rs114,862,272.38	Rs122,877,701.75	Rs8,022,945.00	Rs7,515.63



The chart shows the project's cumulative cost and the cost per quater.
To see the costs for a different time period, select the Edit option from the Field List.

The table below shows cost information for all top-level tasks.
To see cost stats for all tasks, set the Outline Level in the Field List.

Name	Remaining Cost	Actual Cost	Cost	ACWP	BCWP	BCWS
Unilever - 1 MWp Solar Power Project	Rs8,022,945.00	Rs114,862,272.38	Rs122,885,217.38	Rs110,095,772.38	Rs110,086,741.65	Rs110,095,090.50

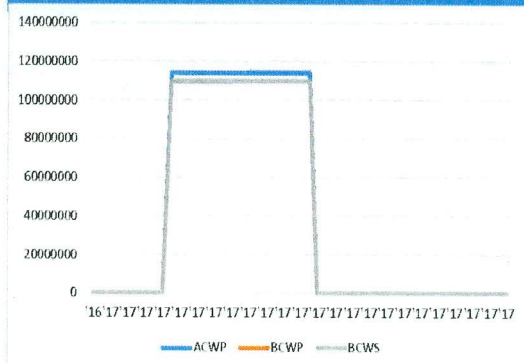
11.4 Earned Value:

EARNED VALUE

Earned value management helps you quantify the performance of a project. It compares costs and schedules to a baseline to determine if the project is on track.

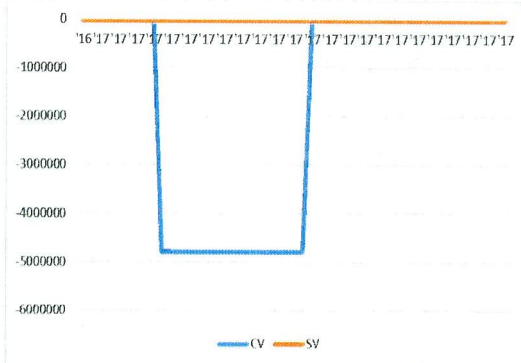
If the charts don't look right, make sure you have set a baseline, assigned costs to tasks or resources, and entered progress.

EAC	ACWP	BCWP
Rs122,887,883.77	Rs110,095,772.38	Rs110,086,741.65



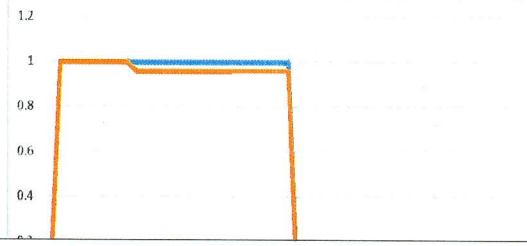
The project's earned value based on the status date. If actual cost (ACWP) is higher than earned value (BCWP), then the project is over budget. If planned value (BCWS) is higher than earned value, then the project is behind schedule.

Learn more about earned value



VARIANCE OVER TIME

Cost and schedule variances for the project based on status date. If CV is negative then, the project is over budget. If SV is positive then the project is behind schedule.

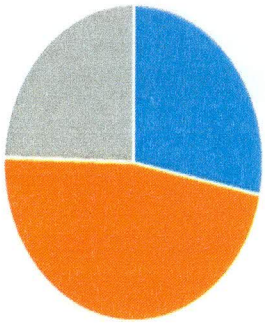


INDICES OVER TIME

Cost and schedule performance indices for the project based on status date. The greater the performance index, the more on schedule and cost saving the project.

11.5 Late Tasks:

LATE TASKS



Status: Complete Status: Late Status: Future Task

Tasks that are late as compared to the status date. A task is late if its finish date has passed or it is not progressing as planned.

Name	Start	Finish	% Complete	Remaining Work	Resource Names
	Mon 1/2/17	Mon 1/2/17	0%	0 hrs	
Consumables Delivery	Sat 3/18/17	Tue 8/22/17	60%	768 hrs	Store/Procurment Staff [200%]

11.6 Milestone Report:

MILESTONE REPORT

LATE MILESTONES

Milestones that are past due.

Name	Finish

MILESTONES UP NEXT

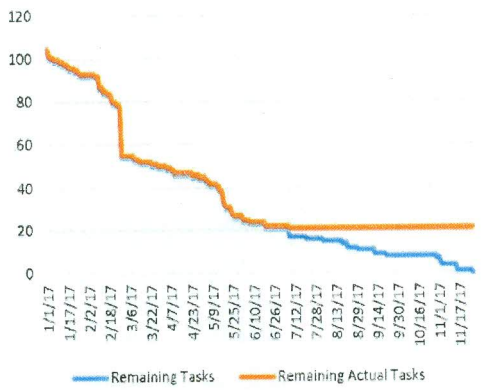
Milestones due in this month.

Name	Finish

COMPLETED MILESTONES

Milestones that are 100% complete.

Name	Finish
Advance Payment	Tue 1/3/17
Design Approval	Mon 2/27/17
Fabrication Completed	Fri 6/2/17

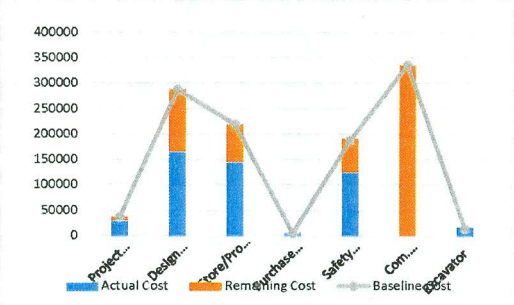


11.7 Resource cost overview:

RESOURCE COST OVERVIEW

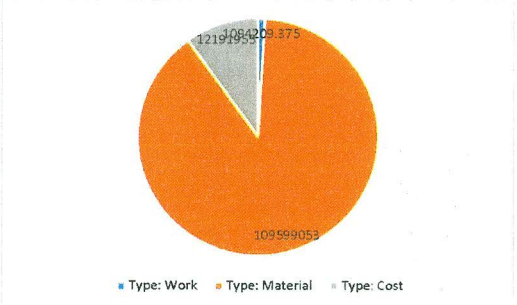
COST STATUS

Cost status for work resources.



COST DISTRIBUTION

How costs are spread out amongst different resource types.



COST DETAILS

Cost details for all work resources.

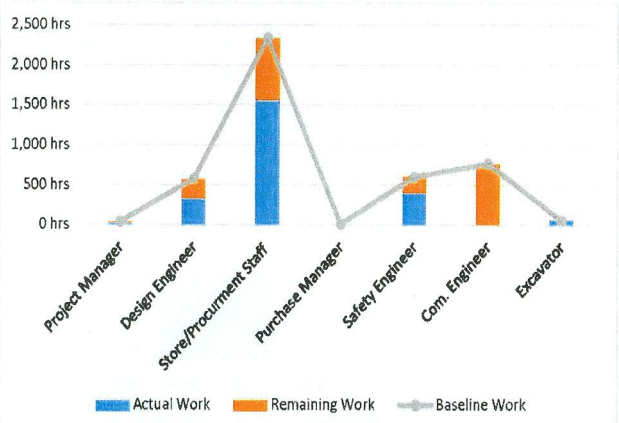
Name	Actual Work	Actual Cost	Standard Rate
Project Manager	35.22 hrs	Rs31,875.00	Rs150,000.00/mo n
Design Engineer	336 hrs	Rs168,000.00	Rs80,000.00/mon
Store/Procurment Staff	1,571 hrs	Rs147,281.25	Rs15,000.00/mon
Purchase Manager	8.4 hrs	Rs4,725.00	Rs90,000.00/mon
Safety Engineer	408.28 hrs	Rs127,588.13	Rs50,000.00/mon
Com. Engineer	0 hrs	Rs0.00	Rs70,000.00/mon
Excavator	71 hrs	Rs17,750.00	Rs2,000.00/day

11.8 Resource overview:

RESOURCE OVERVIEW

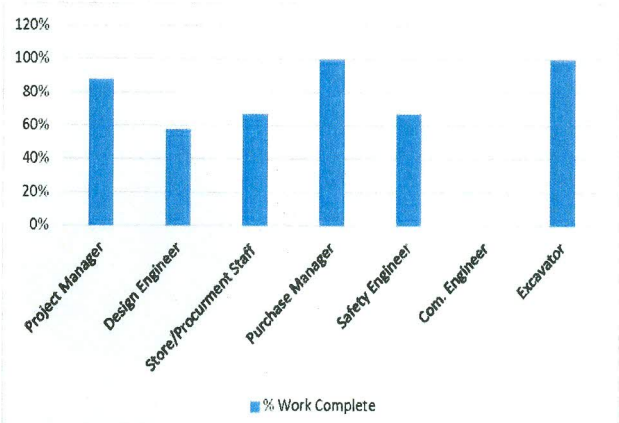
RESOURCE STATS

Work status for all work resources.



WORK STATUS

% work done by all the work resources.



RESOURCE STATUS

Remaing work for all work resources.

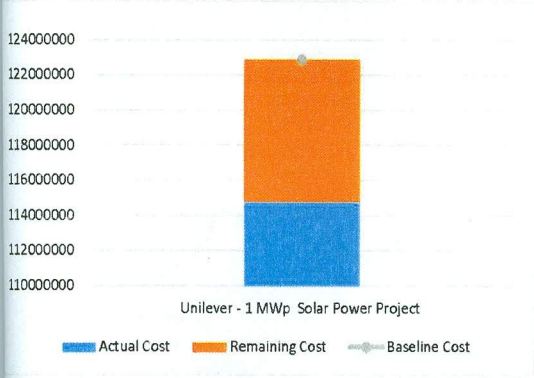
Name	Start	Finish	Remaining Work
Project Manager	Mon 1/2/17	Wed 11/15/17	4.78 hrs
Design Engineer	Wed 1/4/17	Mon 11/27/17	240 hrs
Store/Procurment Staff	Sat 3/18/17	Tue 8/22/17	768 hrs
Purchase Manager	Tue 2/28/17	Tue 2/28/17	0 hrs
Safety Engineer	Wed 3/1/17	Tue 9/12/17	202.77 hrs
Com. Engineer	Wed 8/30/17	Mon 11/27/17	768 hrs
Excavator	Wed 3/1/17	Sat 3/11/17	0 hrs

11.9 Task cost overview:

TASK COST OVERVIEW

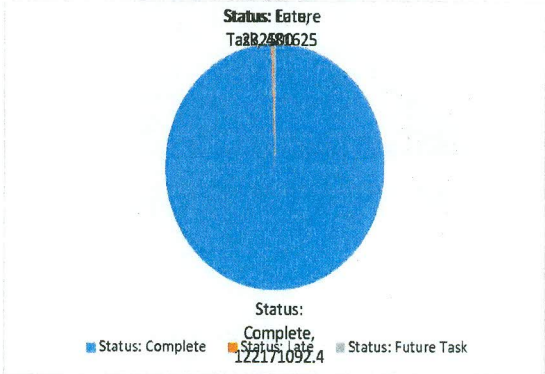
COST STATUS

Cost status for top-level tasks.



COST DISTRIBUTION

How costs are spread out amongst tasks based on their status.

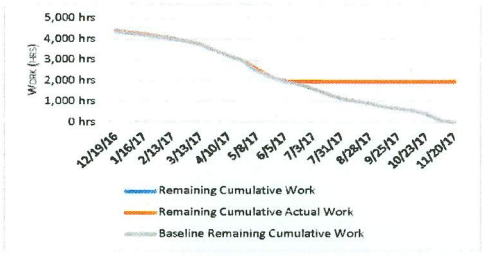


COST DETAILS

Cost details for all top-level tasks.

Name	Fixed Cost	Actual Cost	Remaining Cost	Cost	Baseline Cost	Cost Variance
Unilever - 1 MWp Solar Power Project	Rs0.00	Rs114,862,272.38	Rs8,022,945.00	Rs122,885,217.38	Rs122,877,701.75	Rs7,515.63

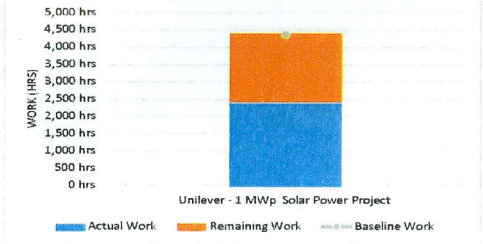
11.10 Work overview:

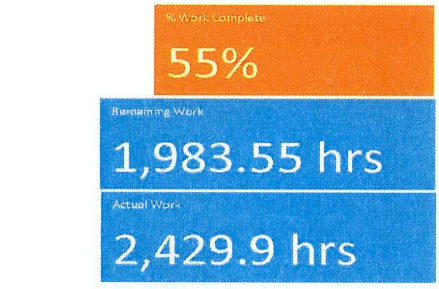


WORK BURNDOWN
Shows how much work you have completed and how much you have left. If the remaining cumulative work line is steeper, then the project may be late.

Is your baseline work zero?

Try setting a baseline

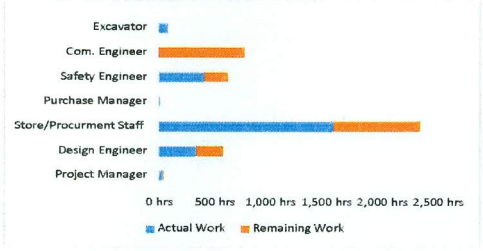


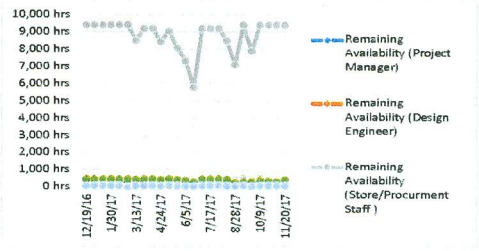


WORK OVERVIEW

Mon 1/2/17 Mon 11/27/17

WORK STATS
Shows work stats for all top level tasks.





RESOURCE STATS
Shows work stats for all your resources.

REMAINING AVAILABILITY
Shows remaining availability for all work resources.

Report

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EXCLUDE BIBLIOGRAPHY	ON		