

# Project Lifecycle Overview

## Understanding the Impact of Projects

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For Discussion Purposes Only

# Project Lifecycle Overview



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## Project Initiation

### Description

1. Suggestions for projects are identified through:
  - Committees, Sub-Committees
  - Market Participants
  - Regulatory
  - NYISO Staff

### Outputs

1. Issues Management Committee Reviews Proposed Projects
  - Determines if resources should be dedicated to conducting an analysis
  - Recommends initial project prioritization

## Business Requirements & Analysis Phase

### Description

1. A detailed analysis is conducted to determine:
  - Recommended Business Process Enhancements
  - Primary Project Deliverables
  - Business Case (Cost/Benefit)
  - Internal & External Stakeholders
  - Business Risks
  - Initial Project Cost Estimates



### Outputs

1. Committees review, approve and prioritize projects
  - SMSC (Senior Management Steering Committee)
  - Business Issues Committee, Management Committee, Project Prioritization Team
2. Defined Business Requirements
3. Initial Project Team established
4. Initial Project Budget Estimate
5. Detailed Software Requirements.

## Design Phase

### Description

1. Based upon the Business Requirements a detailed technical design is developed to support the desired solution.



### Outputs

1. Technical Design
  - Architectural Design
  - Software Design
  - Prototype Designs
2. Preliminary Unit and Integration Test Plans
3. Revised Project Estimates based on improved knowledge

## Development and Unit Test Phase

### Description

1. During this phase, code is developed and tested within the Software Development area.
2. Design and Code Reviews are conducted to ensure code is developed to design.
3. Quality Assurance participates in phase to aid in unit testing and begin formalized test planning.
4. Coding follows formal Configuration Management Standards.
5. Criteria for delivery of code to QA for formal integration testing established.

### Outputs

1. Potential Design Changes
  - Follows Change Control Process
2. Finalized Code for delivery to Integration Testing.

## Integration & UAT Test Phase

### Description

1. Code is deployed to controlled test environments and integration tested to ensure that the code provides the expected results and does not impact production systems.
2. The Business Owner also conducts testing to ensure that business needs and expectations are met.
3. In instances where the code has a significant impact on MPs, testing is coordinated with MPs.



### Outputs

1. As necessary, code fixes are coordinated and testing is performed again on revised code. In this instance, code is fixed through formal Development and Unit Test Phase.
2. All Formal Defects are documented and tracked throughout Life of Project.
3. Accepted code is signed-off by Quality Assurance and Business Owner and made ready for deployment.

## Training & Deployment Phase

### Description

1. Throughout the Development Phase, training for internal staff and Market Participants is coordinated to coincide with the availability of the prototype code.
2. A detailed deployment plan is developed to coordinate deployment activities, system outages, notifications to Market Participants, etc. Deployment activities span multi-functional departments.
3. Deployment planning begins early in the Project Lifecycle.

### Outputs

1. Training is conducted and materials are made available.
2. Project documentation is finalized.
3. Code is deployed to production by QA following Approved Configuration Management/Change Control Process.
4. Support Teams are defined and implemented.



## Post Deployment Support Phase

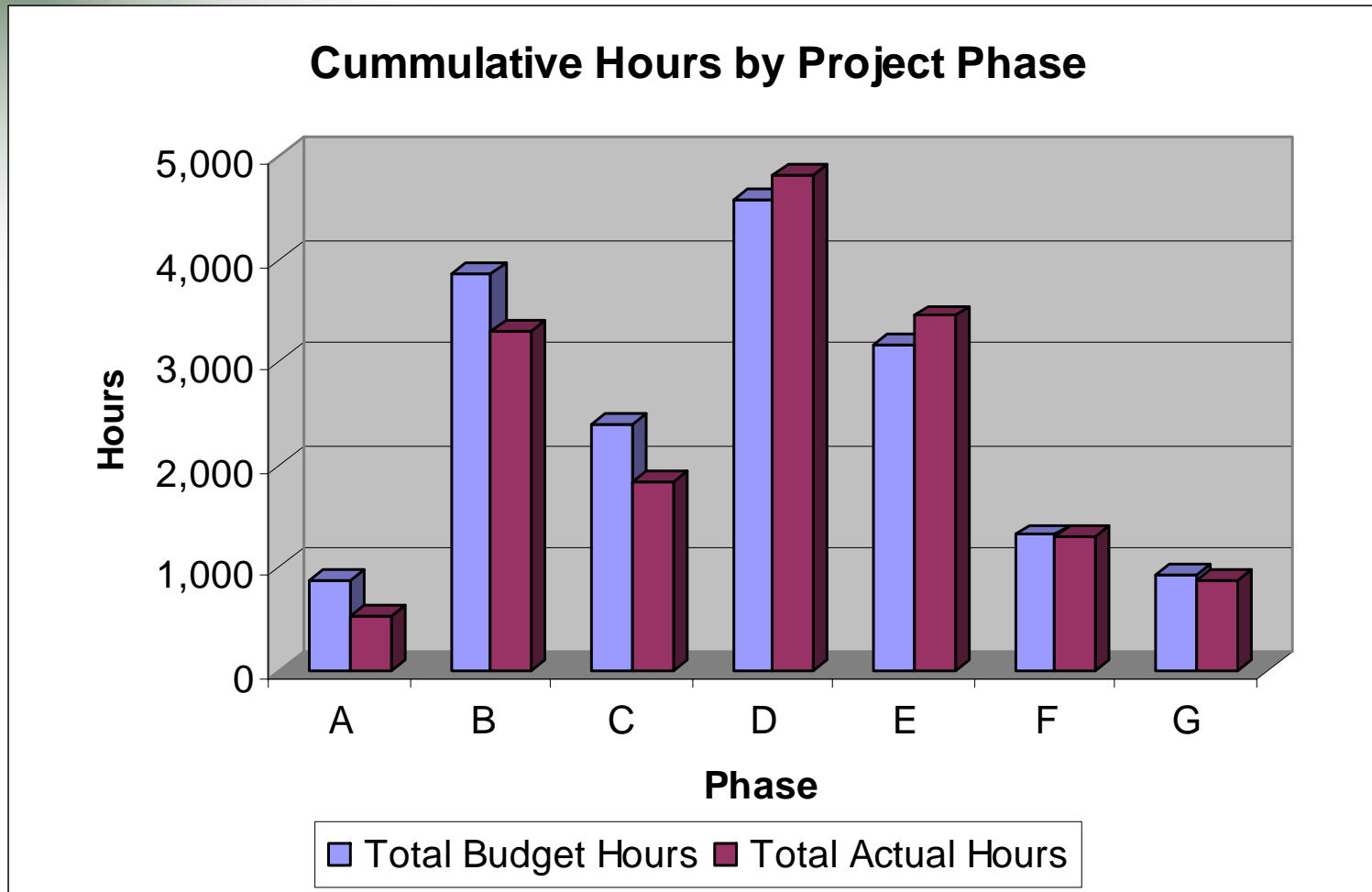
### Description

1. Following the deployment to production development and testing staff are allocated to support potential issues that may arise.
2. In cases where issues are discovered, staff are required to analyze the issue, develop appropriate solutions, test and schedule the deployment of the revised code following the Project Lifecycle Phases
3. Issue Resolution is communicated to internal and external customers following defined Support Process.

### Outputs

1. Support is provided to both internal staff and Market Participants.
2. Issues are documented and as needed, the issues are resolved following development/test process and revised code is deployed to production.
3. Lessons Learned for Projects are conducted and action items for their resolution are established.

# Project Lifecycle Overview



## Resource Intensity Varies by Project Phase

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## Summary

- **MPs have input through committee process to identify issues and new projects**
- **Process to initiate, prioritize and monitor projects is in place through the PPT and BS&P**
- **NYISO market and operation systems are complex - changes must be deliberate and controlled**
- **Success results from following due process and NYISO has effective processes in place (SAS 70)**
- **But ... it all takes time**