

2020 Contingency Project Budget Recommendation

(If Necessary)

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Budget and Priorities Working Group

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Agenda

- EMS/BMS Update - **Currently Targeting October 29, 2019 Deployment**
- **If Necessary** - Contingency Plan : EMS/BMS System Upgrade Deploys March 1, 2020
- Contingency Project Budget Details
- Next Steps

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EMS/BMS System Upgrade Project Update

- Parallel Testing is on-going and currently issues remain
- ABB/NYISO are actively resolving these issues and ABB remains on-site to expedite
- As a result, the current schedule of October 22, 2019 has been revised to October 29, 2019
- October 31, 2019 remains the last deployment date available in 2019

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Next Steps

- Continue issue resolution
- Enter Parallel Operations (dual entry) on October 15, 2019
- Production cut-over on October 29, 2019 (current target)
- If critical issues remain prior to October 31, 2019, execute Contingency Plan
- NYISO will issue an update to Market Participants

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Contingency Plan : EMS/BMS System Upgrade Deploys March 1, 2020 (If Necessary)

EMS/BMS System Upgrade

- **Project added to the 2020 final project budget recommendation**
 - Labor associated with testing and deployment – \$0.56 million
 - Final payment to ABB - \$1.03 million
 - Extending HPUX support for existing system - \$0.15 million
 - Miscellaneous license extensions for existing system - \$0.18 million
- **Creates resource constraints with other projects**
- **Corresponding project cuts / scope deferred into 2021 is required**

2020 Project Impacts

- Deployment of ESR Participation Model revised from Q2 to Q4
- Ancillary Service Shortage Pricing (SOM) planned deployment in 2020 eliminated, Market Design Complete milestone remains
- Reserve for Resource Flexibility planned Deployment milestone revised to Market Design Complete
- Advanced Test Automation is eliminated

2020 Project Impacts Continued

- Automated Default Bid Mitigation planned Deployment milestone revised to Development Complete
- Projects with scope reduction for 2020, remaining scope being deferred into 2021
 - EMS/BMS Operational Enhancements
 - Network Infrastructure Upgrade
 - Database Upgrade and Platform Migration
 - Application Platform Upgrade
 - NextEra Transmission Owner Integration

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Financial Impact Assessment

- **Cost Increases:**

- + \$1.03M ABB Final Payment (moves from 2019 to 2020)
- + \$0.15M HPUX Support
- + \$0.18M Misc. License Extensions

- **Cost Reductions:**

- \$0.10M Delay of Ancillary Service Shortage Pricing
- \$0.63M Network Infrastructure Upgrade scope deferred to 2021
- \$0.33M Advanced Test Automation eliminated
- \$0.30M Reduction in EMS/BMS Operational Enhancement scope

Net Budget Impact: \$0

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Contingency Project Budget Details

Recommended 2020 Project Budget By Product Area

Product Area	Estimated Cost (in millions)			
	Labor	Capital	Prof. Serv.	Total
Business and Finance Products	2.04	0.43	1.83	4.30
Capacity Market Products	1.13	0.00	1.25	2.38
DER Products	3.02	0.27	1.60	4.89
Energy Market Products	2.69 2.47	0.00	2.60 2.50	5.29 4.97
Enterprise Products	3.14 2.67	5.03 4.40	2.14 1.82	10.31 8.89
Operations and Reliability Products	1.34 1.68	0.00	2.58 3.31	3.92 4.99
Planning Products	0.09	0.00	0.40	0.49
TCC Products	0.12	0.00	0.00	0.12
Total Cost	13.57 13.22	5.73 5.10	12.40 12.70	31.69 31.03

Recommended 2020 Projects

Business and Finance Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Enterprise Information Management - Data Integration Phase IV	Development Complete	0.92	0.20	1.23	2.35
CMS Minimum Participation Criteria Enhancements	Deployment	0.03	0.00	0.00	0.03
Financial Risk Assessment and Scoring Enhancement	Deployment	0.18	0.00	0.00	0.18
Oracle Financials Upgrade	Deployment	0.25	0.00	0.50	0.75
Rate Schedule 12 Settlement	Deployment	0.27	0.00	0.00	0.27
Customer Relationship Management (Salesforce CRM) Enhancements	Deployment	0.15	0.08	0.10	0.33
FERC Form 1 Redesign	Deployment	0.11	0.15	0.00	0.26
Transactions Modifications and Confirmation Tool	Functional Requirements	0.13	0.00	0.00	0.13

Recommended 2020 Projects

Capacity Markets Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Demand Curve Reset	Study Complete	0.45	0.00	0.90	1.35
BSM Renewables Exemptions Study	Study Complete	0.04	0.00	0.20	0.24
Comprehensive Mitigation Review	Market Design Complete	0.29	0.00	0.10	0.39
Enhanced BSM Mitigation Study Period	Market Design Complete	0.05	0.00	0.00	0.05
Enhancing Fuel and Energy Security	Market Design Concept Proposed	0.10	0.00	0.00	0.10
Locational Marginal Pricing of Capacity (SOM)	Issue Discovery	0.06	0.00	0.00	0.06
CRIS Tracking	Functional Requirements	0.02	0.00	0.00	0.02
Tailored Availability Metric	Market Design Complete	0.12	0.00	0.05	0.17

Recommended 2020 Projects

DER Market Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
DER Participation Model	Software Design	2.00	0.27	0.60	2.87
Dual Participation	Deployment	0.15	0.00	0.00	0.15
Expanding Capacity Eligibility	Development Complete	0.73	0.00	1.00	1.73
NYISO Pilot Framework	Study Complete	0.13	0.00	0.00	0.13

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Recommended 2020 Projects

Energy Market Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Ancillary Services Shortage Pricing (SOM)	Market Design Complete	0.33 0.22	0.00	0.10 0.00	0.43 0.22
Grid in Transition Discussion	Issue Discovery	0.05	0.00	0.25	0.30
ESR Participation Model	Deployment	1.22	0.00	2.10	3.32
5-Minute Transaction Scheduling	Study Complete	0.05	0.00	0.00	0.05
Carbon Pricing	Functional Requirements	0.15	0.00	0.00	0.15
Relocating the IESO Proxy Bus	Deployment	0.05	0.00	0.00	0.05
Hybrid Storage Model	Market Design Complete	0.15	0.00	0.00	0.15
DAM Congestion Settlement Re-Allocation	Development Complete	0.16	0.00	0.00	0.16
Mitigation Thresholds Review	Market Design Concept Proposed	0.03	0.00	0.00	0.03
Enhanced Fast Start Pricing	Deployment	0.28	0.00	0.15	0.43
Reserves for Resource Flexibility	Deployment Market Design Complete	0.23 0.12	0.00	0.00	0.24 0.12

Recommended 2020 Projects

Enterprise Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
ACC Control Room Renovations	Deployment	0.36	1.73	0.57	2.66
Advanced Test Automation	Deployment	0.11	0.00	0.33	0.43
IT Service Management Improvements	Deployment	0.22	0.20	0.25	0.67
IT Infrastructure Automation	Deployment	0.46	0.00	0.20	0.66
Network Infrastructure Upgrade	Deployment	0.19 0.12	1.35 0.72	0.00	1.54 0.84
Access Management	Deployment	0.60	0.13	0.45	1.18
Database Upgrade and Platform Migration	Deployment	0.40 0.28	1.62	0.13	2.14 2.02
E-Tagging Refresh and Performance Improvements	Deployment	0.15	0.00	0.22	0.37
Application Platform Upgrade - 2020	Deployment	0.55 0.38	0.00	0.00	0.55 0.38
GFER Upgrade	Deployment	0.10	0.00	0.00	0.10

Recommended 2020 Projects

Operations and Reliability Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Transmission and Generation Scheduling System (TAGSS)	Development Complete	0.38	0.00	1.00	1.38
Automated Default Bid Mitigation	Deployment Development Complete	0.15 0.13	0.00	0.00	0.15 0.13
EMS/BMS Operating Enhancements	Deployment	0.68 0.55	0.00	1.58 1.28	2.26 1.83
NextEra Transmission Owner Integration	Study Complete	0.12 0.06	0.00	0.00	0.12 0.06
EMS/BMS System Upgrade	Deploy	0.56	0.00	1.03	1.59

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Recommended 2020 Projects

Planning Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Climate Change Impact and Resilience Study	Study Complete	0.09	0.00	0.40	0.49

TCC Products

Project	Deliverable	Estimated Cost (in millions)			
		Labor	Capital	Prof. Serv.	Total
Reserving Capacity for TCC Balance-of-Period (BOP) Auctions	Market Design Complete	0.12	0.00	0.00	0.12

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Next Steps

Next Steps

- Monitor EMS/BMS System Upgrade project to determine need for Contingency Plan

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Questions?

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- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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