NYISO Scoring of 2020 Enterprise Projects

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Agenda

- Project Prioritization Phases, Milestones, and Timeline

- NYISO Scoring

- 2020 Enterprise Products Candidates

- Historic Budgets

- Next Steps

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Project Prioritization Phases, Milestones, and Timeline

Project Prioritization Process

Phase	Description
Identification	This phase involves developing the list of project candidates taking into consideration regulatory obligations, strategic initiatives, State of the Market recommendations, necessary infrastructure enhancements, product plans, stakeholder feedback, etc.
Prioritization	The phase involves a stakeholder survey and the NYISO prioritization of projects. The stakeholder survey will facilitate an assessment of the relative priority of the topic within the portfolio and is used to determine stakeholder appeal. The NYISO prioritization incorporates the stakeholder appeal into objective criteria that reflects strategic alignment, expected outcomes, risks, and ability to execute in development of a priority score for each Market project.
Evaluation	This phase involves performing a feasibility assessment based on detailed cost and labor estimates, dependencies, priority scores, and stakeholder feedback.
Recommendation	This phase involves proposing a feasible set of project deliverables and related budget requirements. The proposal is refined as needed based on stakeholder feedback.

Project Type

Project Type	Description
Mandatory	Strategic Initiatives and FERC Orders. These projects will be included in the budget
Continuing	Approved in a prior year and have progressed to either software design or development complete. Additional projects may be classified as Continuing based on stakeholder feedback. These projects will be included in the budget
Future	Consensus from stakeholder discussions of this projects priority relative to other projects has resulted in these projects NOT being prioritized and initiated in the coming budget year. Resources, time constraints, stakeholder feedback, and other project dependencies have been taken in to consideration
Prioritize	Projects to be prioritized and included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies. Market projects are included in the stakeholder survey

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Project Category

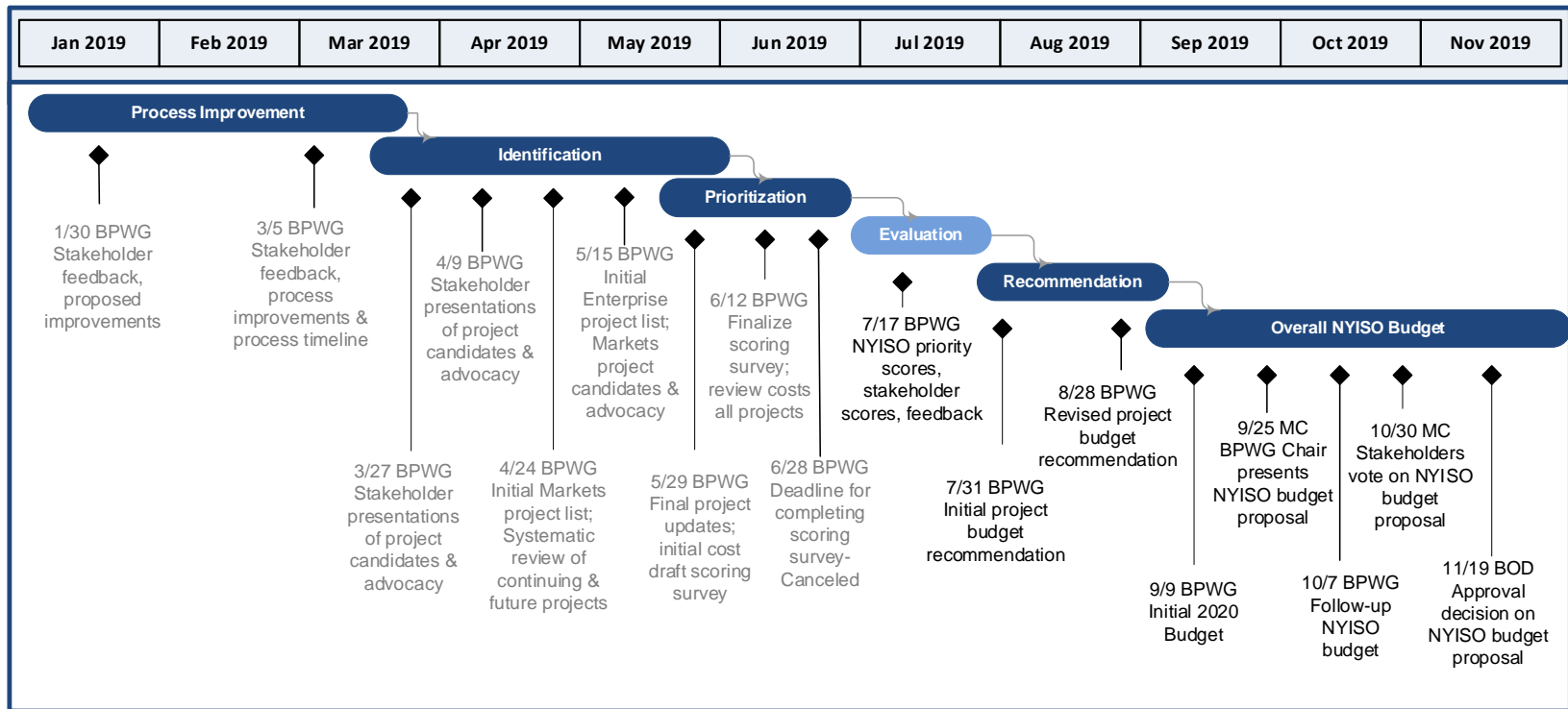| Project Category	Description
Enterprise	Includes internal-facing technology and back office support projects that have no market rule changes. This list includes projects that may be noticeable to Market Participants. These projects are NOT included in the stakeholder survey
Market	Projects associated with market rule(s) including market design and study projects as well as any project implementing market rule changes. These projects are included in the stakeholder survey unless they are Mandatory, Continuing, or Future

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Project Scoring

Project Scoring	Description
NYISO Only	Enterprise projects that are not Mandatory, Continuing, or Future types are scored by the NYISO Only during the Prioritization phase. These projects are included in the budget based on a feasibility assessment taking into consideration resources, time constraints, priority score and other project dependencies.
Stakeholder Scored	Market projects that are not Mandatory, Continuing, or Future are included in the stakeholder survey and scored by the NYISO during the Prioritization phase. These projects are included in the budget based on a feasibility assessment taking into consideration resources, time constraints, stakeholder feedback, priority score, and other project dependencies.

Milestone Definitions

Milestone	Definition
Market Design Concept Proposed	NYISO has initiated, or furthered discussions with stakeholders that explore potential concepts to address opportunities for market efficiency or administration improvements.
Market Design Complete	NYISO has developed with stakeholders, a market design concept such that the proposal can be presented for a vote at the BIC or MC to define further action on the proposal.
Architectural Design	The architectural design document is complete and software development is ready to begin.
Functional Requirements	NYISO has completed documentation of the functional requirements and the Business Owner has approved.
Software Design	The software design document is complete and software development is ready to begin.
Development Complete	Development has been completed, packaged and approved by the Supervisor.
Deployment	Required software changes to support commitment have been integrated into the production environment.
Study Complete	Scope of work to be performed has been completed; results and recommendations have been presented to the appropriate Business Owners and stakeholders.
Study Defined	The scope of work for the study has been presented to stakeholders, including a discussion on the necessary input(s), assumption(s) and objective(s) of the study.

Project Prioritization Timeline

Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019	Jul 2019	Aug 2019	Sep 2019	Oct 2019	Nov 2019

Process Improvement

Identification

Prioritization

Evaluation

Recommendation

Overall NYISO Budget

1/30 BPWG Stakeholder feedback, proposed improvements

3/5 BPWG Stakeholder feedback, process improvements & process timeline

4/9 BPWG Stakeholder presentations of project candidates & advocacy

5/15 BPWG Initial Enterprise project list; Markets project candidates & advocacy

6/12 BPWG Finalize scoring survey; review costs all projects

7/17 BPWG NYISO priority scores, stakeholder scores, feedback

8/28 BPWG Revised project budget recommendation

9/25 MC BPWG Chair presents NYISO budget proposal

10/30 MC Stakeholders vote on NYISO budget proposal

3/27 BPWG Stakeholder presentations of project candidates & advocacy

4/24 BPWG Initial Markets project list; Systematic review of continuing & future projects

5/29 BPWG Final project updates; initial cost draft scoring survey

6/28 BPWG Deadline for completing scoring survey- Canceled

7/31 BPWG Initial project budget recommendation

9/9 BPWG Initial 2020 Budget

10/7 BPWG Follow-up NYISO budget

11/19 BOD Approval decision on NYISO budget proposal

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NYISO Scoring

Project Prioritization Criteria* Same as used in 2018

Category	Criteria	Criteria Weight	HIGH 10	MEDIUM 7	LOW 3	NONE 0
PRIORITIZATION CRITERIA						
Strategy (If we do this project)	Leader in Reliability	10	Significantly improves NYISO ability to maintain NYCA Reliability	Moderately improves NYISO ability to maintain NYCA Reliability	Minimally improves NYISO ability to maintain NYCA Reliability	None
	Leader in Market Design	10	Significantly improves NYISO Market Design	Moderately improves NYISO Market Design	Minimally improves NYISO Market Design	None
	Leader in Technology Innovation	6	Significantly advances the IT strategy or technology improvement	Moderately advances the IT strategy or technology improvement	Minimally advances the IT strategy or technology improvement	None
	Sustain and Enhance Robust Planning Processes	9	Supports tariff, FERC, NPCC, or NYSERC compliance requirements for Planning Process	Supports reliability planning and/or Business Plan objectives	Required for SRP planning study efficiency or continuous improvement initiatives	None
Outcome (If we do this project)	NYISO Annual Cost Reduction	10	>$500k savings-Direct and soft (labor)	>$100k, <$500k savings-Direct and soft (labor)	>$10k,<$100k savings - Direct and soft (labor)	<$10k savings - Direct and soft (labor)
	Appeal	15	Broad Customer Support : Supported by 5 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; or either raw or weighted scores equivalent to 20% of survey respondents applying 25 points or more	Moderate Customer Support: Supported by 4 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; ; or either raw or weighted scores equivalent to 10% of survey respondents applying 25 points or more	Minimal Customer Support: Supported by 2 sectors with 25% or more of survey respondents per sector applying points and average across the survey respondents per sector of 5 points or more; : or either raw or weighted scores equivalent to 5% of survey respondents applying 25 points or more	Little to No Customer Support
	Market Efficiency	10	Significant improvement	Moderate improvement	Minimal improvement	No impact
	Post Production Sustainability	5	Existing support structure and skills	Support structure exists but needs minimal modifications	Support structure exists but needs major modifications	No skills or support structure in place
Risk (If we do NOT do this project)	Compliance	10	Significant risk of compliance violation	Moderate risk of compliance violation	Minimal risk of compliance violation	None
	Business Process (inclusive of technology impact on business process)	5	Enterprise Wide and/or Bid to Bill Impact. The project impacts processes in most departments	Multiple Department Impact.	Department Wide Impact The project impacts many processes within a department	Only one or two processes impacted
	Reliability and Market	10	Mission-critical systems becoming non operational or above $1 million market impact	Non mission-critical systems becoming non operational or $100,000 - $1 million market impact	Non mission-critical systems affected or $10,000 - $100,000 market impact	No or less than 10,000 impact
Execution (If we do this project)	Cost	4	Total project cost (current & future years) estimated <$100k	Total project cost (current & future years) estimated >$100k, <$500k	Total project cost (current & future years) estimated >$500, <$1M	Total project cost (current & future years) estimated >$1M
	Multi-Year Dependency	8	Continuation of a multi-year project - postponement significantly disrupts value of previous investments	Continuation of a multi-year project - postponement moderately disrupts value of previous investments	Continuation of a multi-year project - postponement minimally disrupts value of previous investments	None
	Complexity of Business and Technology	4	One area/technology	Cross-functional < 3 Areas/Technology	Highly Cross-functional/ Re-engineering	Complex, solution and impact unknown
	Compliance	8	Non-appealable, ordered by FERC / desired by NYISO and MP	Ordered by FERC, undesired by NYISO or MP	Potential order identified by FERC	No order identified by FERC

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Project	Leader in Reliability	Leader in Market Design	Leader in Technology Innovation	Sustain and Enhance Robust Planning Processes	NYISO Annual Cost Reduction	Appeal*	Market Efficiency	Post Production Sustainability	Compliance	Business Process (inclusive of technology impact on business process)	Reliability and Market	Cost	Multi-Year Dependency	Complexity of Business and Technology	Compliance	Score (1-1090)
Criteria Weights =	10	10	6	9	10	NA	10	5	10	5	10	4	8	4	8	
CMS and ConInvoice Data Integration	0	0	0	0	3	NA	0	7	3	0	3	7	0	7	0	181
CMS Minimum Participation Criteria Enhancements	0	0	0	0	0	NA	0	10	7	0	0	10	0	10	0	200
Customer Relationship Management (Salesforce CRM) Enhancements	0	0	3	0	3	NA	0	7	0	7	0	7	3	7	0	198
Finance Reporting and BVA Automation	0	0	0	0	3	NA	0	3	7	3	0	7	0	7	0	186
Minimum Oil Burn Enhancements	0	0	0	0	3	NA	0	10	3	3	0	10	0	10	0	205
SDX API Pilot	0	0	7	0	0	NA	0	3	0	3	0	7	0	7	0	128
Station Power Platform Enhancement	0	0	0	0	0	NA	0	3	3	3	0	7	0	7	0	116
Transactions Modifications and Confirmation Tool	0	0	0	0	3	NA	0	7	3	7	3	7	0	7	0	216

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NYISO Scoring

Project	Leader in Reliability	Leader in Market Design	Leader in Technology Innovation	Sustain and Enhance Robust Planning Processes	NYISO Annual Cost Reduction	Appeal*	Market Efficiency	Post Production Sustainability	Compliance	Business Process (inclusive of technology impact on business process)	Reliability and Market	Cost	Multi-Year Dependency	Complexity of Business and Technology	Compliance	Score (1-1090)
Criteria Weights =	10	10	6	9	10	NA	10	5	10	5	10	4	8	4	8	
DAM Congestion Settlement Re-Allocation	0	0	3	0	3	NA	0	10	3	3	0	7	0	7	0	199
Energy Market Software Performance	0	7	3	0	0	NA	0	10	0	7	0	7	0	10	0	241
ACC Control Room Renovations	10	0	7	0	0	NA	0	7	3	3	7	0	0	7	0	320
Access Management	0	0	10	0	0	NA	0	10	3	10	3	0	3	10	7	340
Advanced Test Automation	0	0	10	0	0	NA	0	10	0	3	3	0	7	3	0	223
CIP Program Optimization and New Standards Development	0	0	7	0	0	NA	0	7	7	7	0	3	3	7	10	326
IT Service Management Improvements	0	0	10	0	0	NA	0	7	3	7	3	0	3	0	0	214
Market Information Systems Modernization	0	3	7	0	0	NA	7	10	0	3	3	0	0	0	0	237

NYISO Scoring

Project	Leader in Reliability	Leader in Market Design	Leader in Technology Innovation	Sustain and Enhance Robust Planning Processes	NYISO Annual Cost Reduction	Appeal*	Market Efficiency	Post Production Sustainability	Compliance	Business Process (inclusive of technology impact on business process)	Reliability and Market	Cost	Multi-Year Dependency	Complexity of Business and Technology	Compliance	Score (1-1090)
Criteria Weights =	10	10	6	9	10	NA	10	5	10	5	10	4	8	4	8	
EMS Visualization Native PI Viewer - Interface and Event Tool	7	0	0	0	0	NA	0	7	0	3	3	7	0	10	0	218
EMS/BMS Operational Enhancements	10	0	0	0	0	NA	0	10	0	3	7	0	10	10	0	355
E-Tagging Refresh and Performance Improvements	3	0	3	0	7	NA	0	10	3	7	3	3	0	7	0	303
GFER Upgrade	3	0	0	0	3	NA	0	10	0	3	3	10	0	10	0	235
Grid Guardian Network Topology Feature Implementation	7	0	0	0	0	NA	0	7	0	3	3	7	0	10	0	218
TCC Auction Billing	0	0	3	0	3	NA	0	3	3	7	0	7	0	7	0	184

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2020 Enterprise Project Candidates

* No Changes from June 12th BPWG Materials

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2020 Enterprise Project Candidates

Project Name	Product Area	Project Type	Proposed Deliverable	Estimated Cost (in millions)			
				Labor	Capital	Prof. Serv.	Total
Budgeting Tool	Business and Finance Products	Prioritize	Functional Requirements	0.11	0.00	0.00	0.11
CMS and ConInvoice Data Integration	Business and Finance Products	Prioritize	Functional Requirements	0.08	0.00	0.00	0.08
CMS Minimum Participation Criteria Enhancements	Business and Finance Products	Prioritize	Deployment	0.08	0.00	0.00	0.08
Customer Relationship Management (Salesforce CRM) Enhancements	Business and Finance Products	Prioritize	Deployment	0.15	0.08	0.10	0.33
Enterprise Information Management - Data Integration Phase IV	Business and Finance Products	Continuing	Deployment	0.91	0.20	2.23	3.34
FERC Form1 Redesign	Business and Finance Products	Mandatory	Deployment	0.11	0.15	0.00	0.26
Finance Reporting and BVA Automation	Business and Finance Products	Prioritize	Functional Requirements	0.13	0.00	0.00	0.13

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2020 Enterprise Project Candidates

Project Name	Product Area	Project Type	Proposed Deliverable	Estimated Cost (in millions)			
				Labor	Capital	Prof. Serv.	Total
Financial Risk Assessment and Scoring Enhancement	Business and Finance Products	Continuing	Deployment	0.26	0.00	0.00	0.26
Minimum Oil Burn Enhancements	Business and Finance Products	Prioritize	Deployment	0.19	0.00	0.00	0.19
Oracle Financials Upgrade	Business and Finance Products	Continuing	Deployment	0.24	0.00	0.50	0.74
Position Control System	Business and Finance Products	Continuing	Deployment	0.15	0.03	0.08	0.25
Rate Schedule 12 Settlement	Business and Finance Products	Continuing	Deployment	0.26	0.00	0.00	0.26
SDX API Pilot	Business and Finance Products	Prioritize	Development Complete	0.18	0.00	0.00	0.18
Station Power Platform Enhancement	Business and Finance Products	Prioritize	Deployment	0.22	0.00	0.00	0.22

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2020 Enterprise Project Candidates

Project Name	Product Area	Project Type	Proposed Deliverable	Estimated Cost (in millions)			
				Labor	Capital	Prof. Serv.	Total
Transactions Modifications and Confirmation Tool	Business and Finance Products	Prioritize	Functional Requirements	0.13	0.00	0.00	0.13
Vendor Management Tool	Business and Finance Products	Continuing	Deployment	0.04	0.00	0.00	0.04
DAM Congestion Settlement Re-Allocation	Energy Market Products	Prioritize	Development Complete	0.18	0.00	0.00	0.18
Energy Market Software Performance	Energy Market Products	Prioritize	Study Complete	0.15	0.00	0.20	0.35
ACC Control Room Renovations	Enterprise Products	Prioritize	Deployment	0.36	1.73	0.57	2.66
Access Management	Enterprise Products	Prioritize	Deployment	0.69	0.13	0.45	1.27
Advanced Test Automation	Enterprise Products	Prioritize	Deployment	0.17	0.00	0.65	0.82
Application Platform Upgrade - 2020	Enterprise Products	Continuing	Deployment	0.61	0.00	0.00	0.61

2020 Enterprise Project Candidates

Project Name	Product Area	Project Type	Proposed Deliverable	Estimated Cost (in millions)			
				Labor	Capital	Prof. Serv.	Total
CIP Program Optimization and New Standards Development	Enterprise Products	Prioritize	Study Complete	0.35	0.00	0.20	0.55
Database Upgrade and Platform Migration	Enterprise Products	Continuing	Deployment	0.40	1.62	0.13	2.14
IT Infrastructure Automation	Enterprise Products	Continuing	Deployment	0.46	0.00	0.20	0.66
IT Service Management Improvements	Enterprise Products	Prioritize	Deployment	0.25	0.20	0.25	0.70
Market Information Systems Modernization	Enterprise Products	Prioritize	Study Complete	0.19	0.11	0.19	0.49
Network Infrastructure Upgrade	Enterprise Products	Continuing	Deployment	0.19	1.35	0.00	1.54
Automated Default Bid Mitigation	Operations & Reliability Products	Continuing	Deployment	0.16	0.00	0.00	0.16
EMS Visualization Native PI Viewer - Interface and Event Tool	Operations & Reliability Products	Prioritize	Deployment	0.10	0.13	0.00	0.23

2020 Enterprise Project Candidates

Project Name	Product Area	Project Type	Proposed Deliverable	Estimated Cost (in millions)			
				Labor	Capital	Prof. Serv.	Total
EMS/BMS Operational Enhancements	Operations & Reliability Products	Prioritize	Deployment	0.69	0.00	2.08	2.77
E-Tagging Refresh and Performance Improvements	Operations & Reliability Products	Prioritize	Deployment	0.14	0.00	0.69	0.82
GFER Upgrade	Operations & Reliability Products	Prioritize	Deployment	0.09	0.00	0.00	0.09
Grid Guardian Network Topology Feature Implementation	Operations & Reliability Products	Prioritize	Deployment	0.13	0.13	0.00	0.26
NextEra Transmission Owner Integration	Operations & Reliability Products	Mandatory	Study Complete	0.13	0.00	0.00	0.13
Transmission and Generation Scheduling System (TAGSS)	Operations & Reliability Products	Continuing	Development Complete	0.38	0.00	1.00	1.38
TCC Auction Billing	TCC Products	Prioritize	Deployment	0.24	0.00	0.00	0.24

Historic Budgets

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Historic Project Budget Comparison

Project Budget	Estimated Cost (in millions)				Mandatory	Continuing
	Labor	Capital	Prof. Serv.	Total		
2020 Candidate Projects	17.98	6.12	20.16	44.26	13.31	12.82
2019 Approved	11.47	4.65	12.82	28.95	9.40	14.82
2018 Approved	11.01	7.96	4.64	23.61	2.15	8.80
2017 Approved	11.10	6.18	4.59	21.87	1.01	9.10
2016 Approved	11.50	6.32	3.78	21.60	4.17	12.06
2015 Approved	11.63	5.29	5.63	22.55	5.67	NA

Next Steps

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Next Steps

- Review the NYISO's initial project budget recommendation at the July 31st BPWG meeting

- Review the NYISO's revised project budget recommendation at the August 28th BPWG meeting

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Questions?

The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

- 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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