



SMART ORGANIZATIONAL INITIATIVE MANAGEMENT

ERIN CATHEY, LEAD STRATEGIC COORDINATOR

*Helping our members work together to keep
the lights on... today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

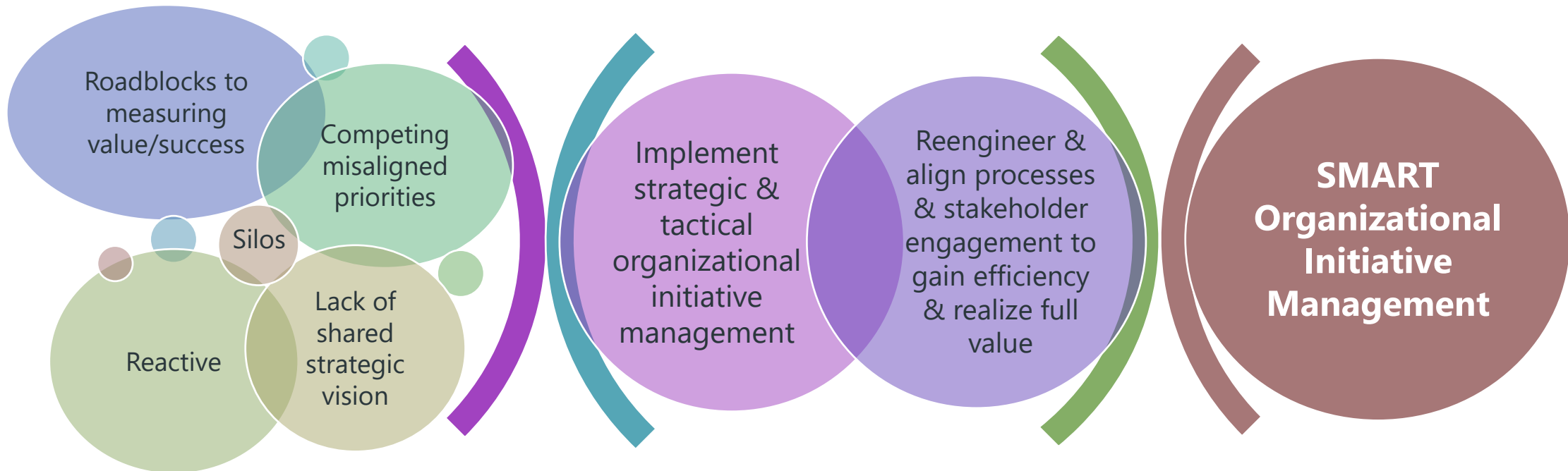
TOPICS

- Strategic Services Objectives & Status
- Comprehensive Roadmap Overview
- Initiative Prioritization Overview & Progress
- Developing the 5 year Comprehensive Roadmap Schedule

STRATEGIC SERVICES OBJECTIVES AND COMPREHENSIVE ROADMAP OVERVIEW

Improving Organizational Initiative Management

A comprehensive approach



Depleted Value

Constraining manual processes
Strained responsiveness
Rework
Redundant/overlapping efforts & priorities
Confusion
Ineffective engagement

Enhanced Value

Programmatic data management & reporting
Proactive responsiveness
Improved business cases, success measures
Efficient, effective, aligned process
Shared strategic vision & priorities
Effective engagement

STRATEGIC PORTFOLIO MANAGEMENT



SMART Organizational Initiative Management

Establishing the Framework - Critical Components

1. Strategic Portfolio Management

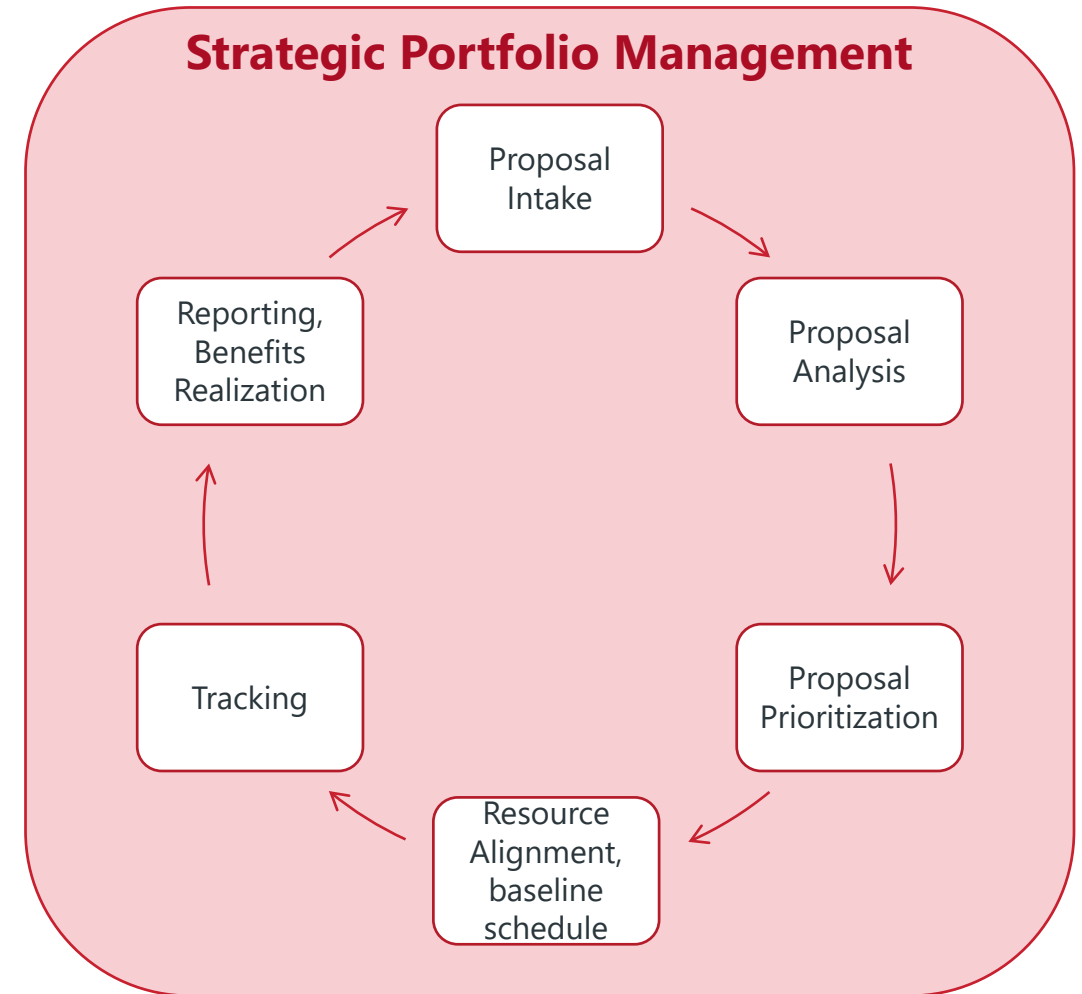
- Establish SPP Strategic Services
- Establish Strategic Portfolio Methodology

2. Re-engineer & Align Existing Sub-Processes

- Establish Structured Design Development Process
- Create, Refine, Align - Intake, Nomenclature, PMO method, Budget process, Enhancement process, Defect process, Revision Request process, Reporting process, ROI Validation process, etc.

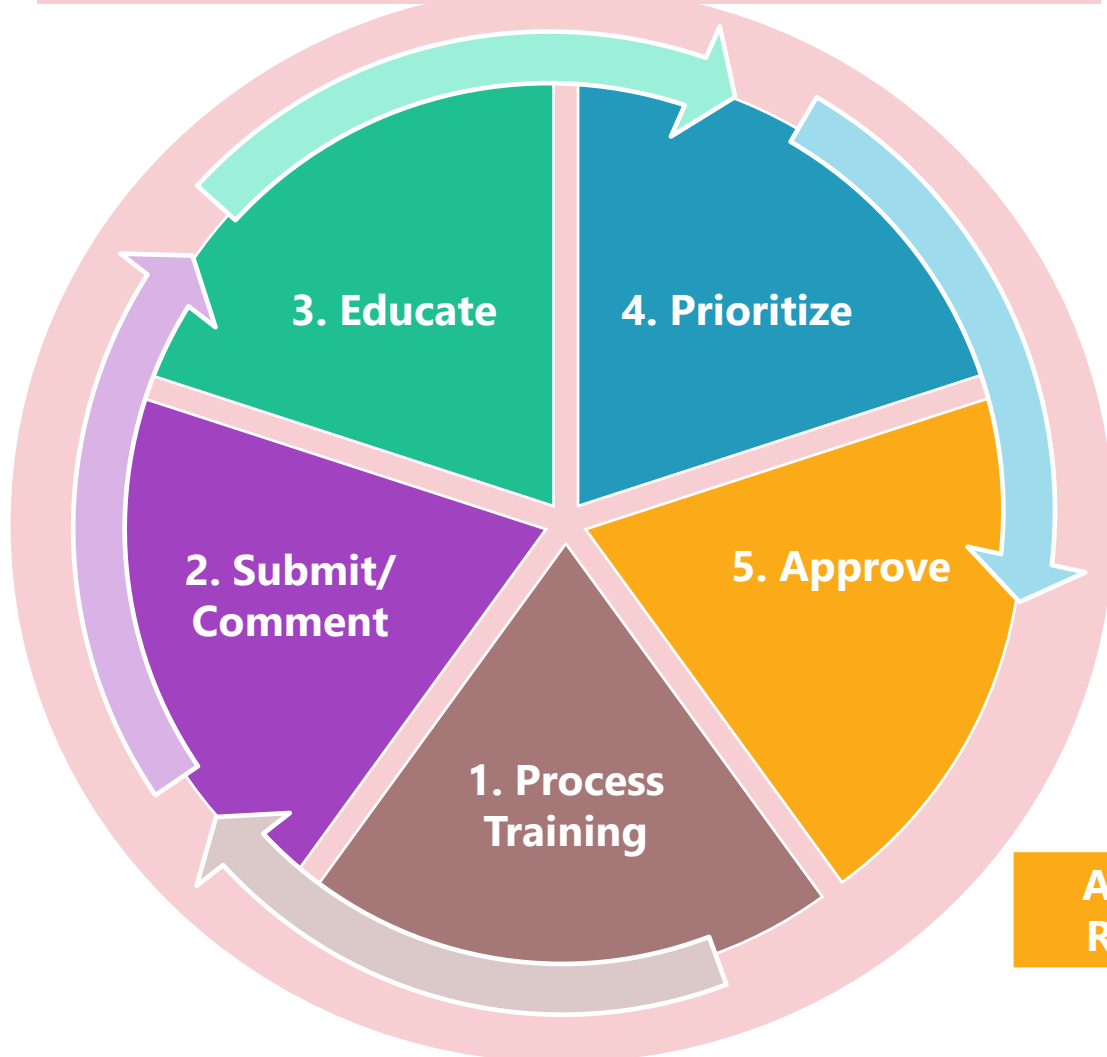
3. Data Analytics

- Develop Central Data Management Solution
- Establish Single Source of Truth for Data
- Establish Process to Gather & Track Metrics, KPIs, Success Measures
- Establish Programmatic Value & Impact Reporting



Strategic Portfolio Management

SPP Roadmap Development Process



Proactive, Feeds Design Development

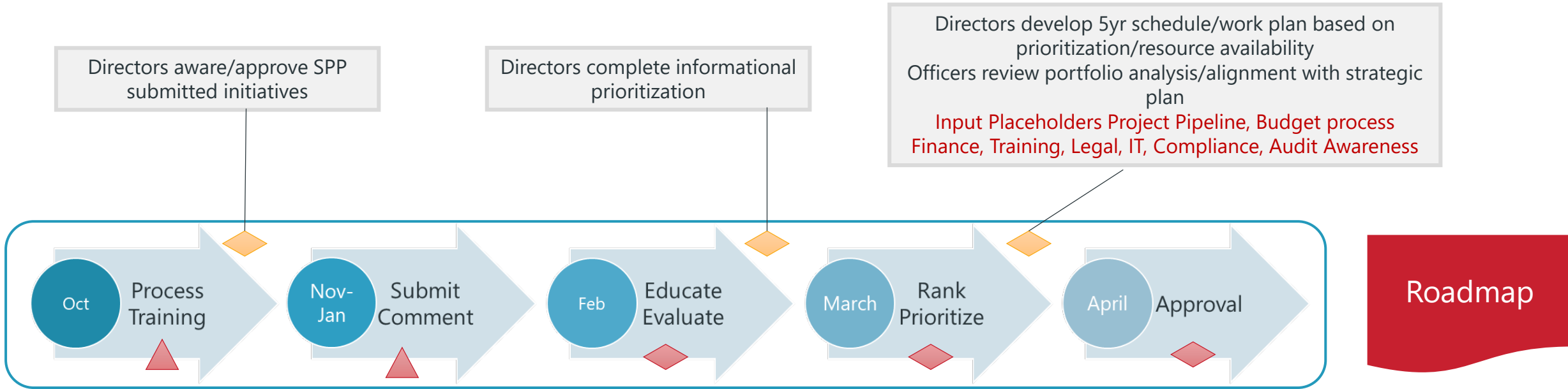
Design Development Process



Ad-hoc Initiative Management

Approved Roadmap

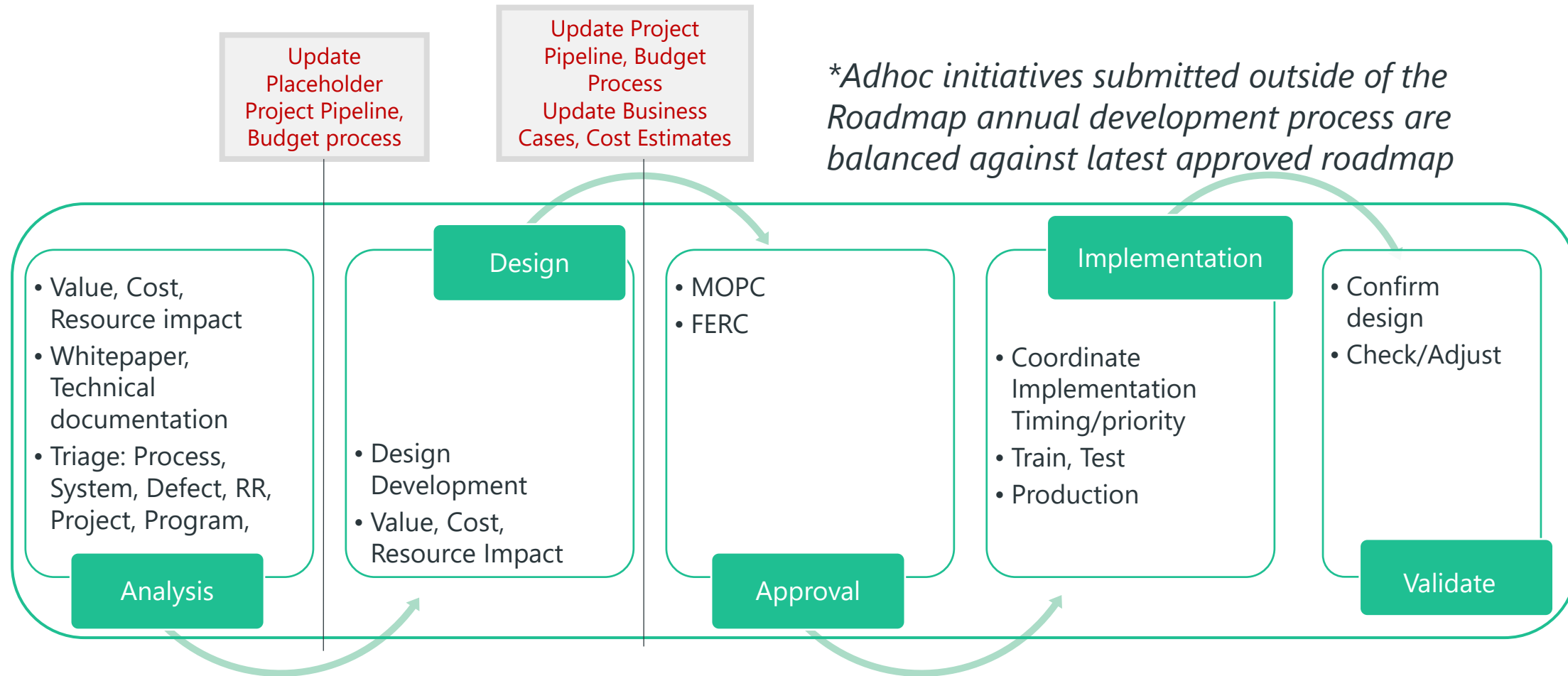
Strategic Portfolio Management - Comprehensive Roadmap Development



INITIATIVE DATA MANAGEMENT

Data Collection, Metric Tracking & Reporting

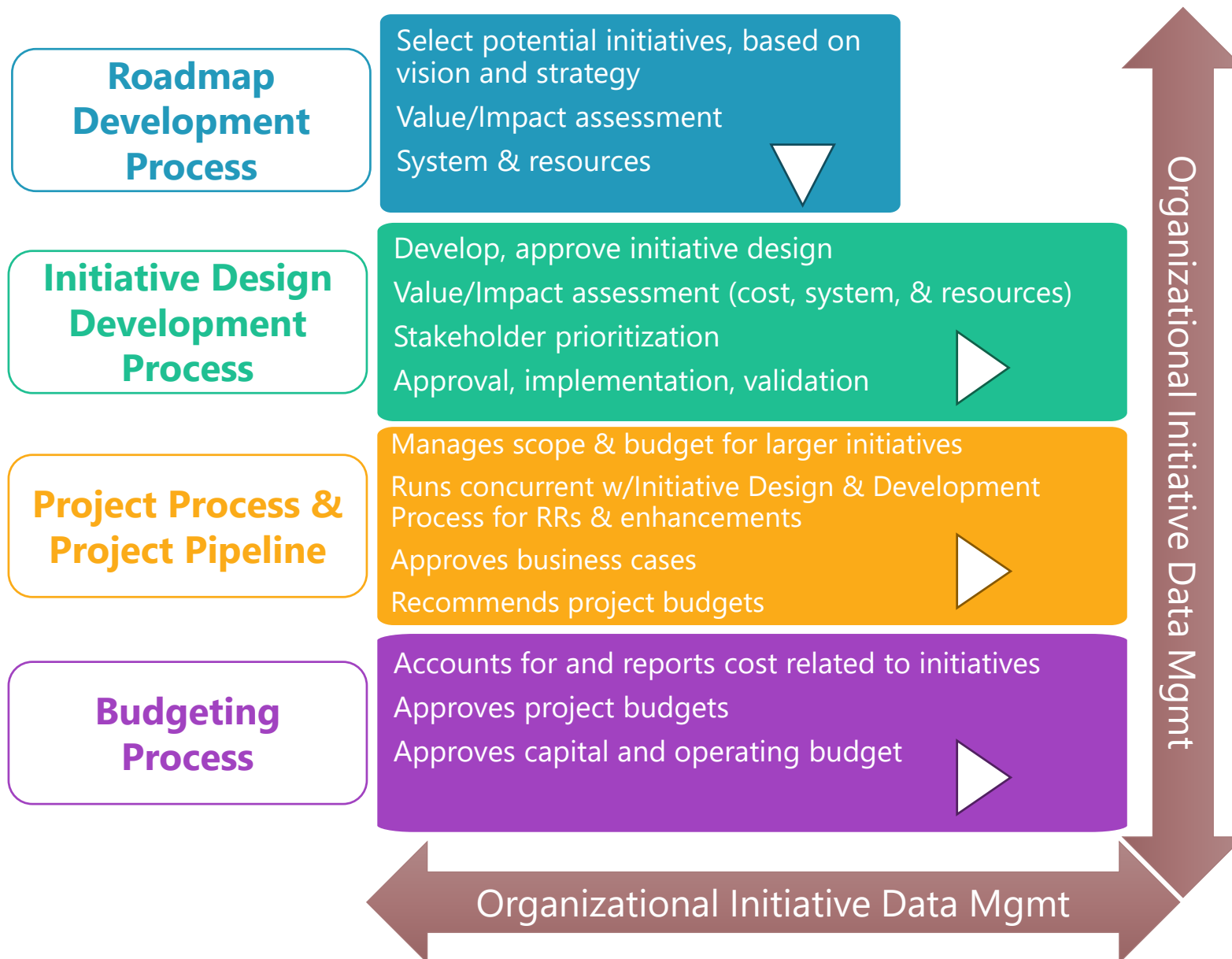
Strategic Portfolio Management – Design Development Process



INITIATIVE DATA MANAGEMENT

Data Collection, Metric Tracking & Reporting

Strategic Portfolio Management



- Roadmap process is an input to Initiative Design Development Process, Project Process/Pipeline, & Budget process
- When initiatives are approved as RRs, Enhancements, Projects through the Initiative Design Development Process they are an input to Project Process/Pipeline & Budget Process
- Initiative Design Development, Project Process/Pipeline, & Budgeting Process run concurrently & information flows between the them
- Data management solution improves collection & maintenance of all data related to initiatives such that real-time reporting is possible

PRIORITIZATION OVERVIEW & PROGRESS

2022 Roadmap Development Remaining Activities

- **Prioritize Initiatives**

- Informed decisions based on education
- Collective functional area prioritization based on individual responses
- SPP & MMU informational prioritization
- Strategic & transparent prioritization process, not a 'black box' approach
- Transparent, collaborative, actionable, strategic-reasoning/logic promotes work that contributes to corp. strategic goals
- Eliminates "noise"



PRIORITIZATION PROCESS

- Focus on defining priority for discretionary work, not on how or when we will do the work
- This step does not include:
 - Mandated, directed, & with-in 18 months of completion
 - Some ongoing project or other work not captured in roadmap process due to timing
- SPP will present a 5 year schedule for all work based on priority and resource availability to SPC & MOPC for approval

PRIORITIZATION PROGRESS

- Positive response rate and feedback
- Prioritizing discretionary work – Indicating level of importance
- Outcome will be allocation to High – Medium – Parking Lot buckets
- Strategic Services will provide SPP leadership with baseline schedule & portfolio analytics
 - Mandated
 - Directed
 - Discretionary near completion
 - Discretionary based on level of importance
 - Existing schedules included

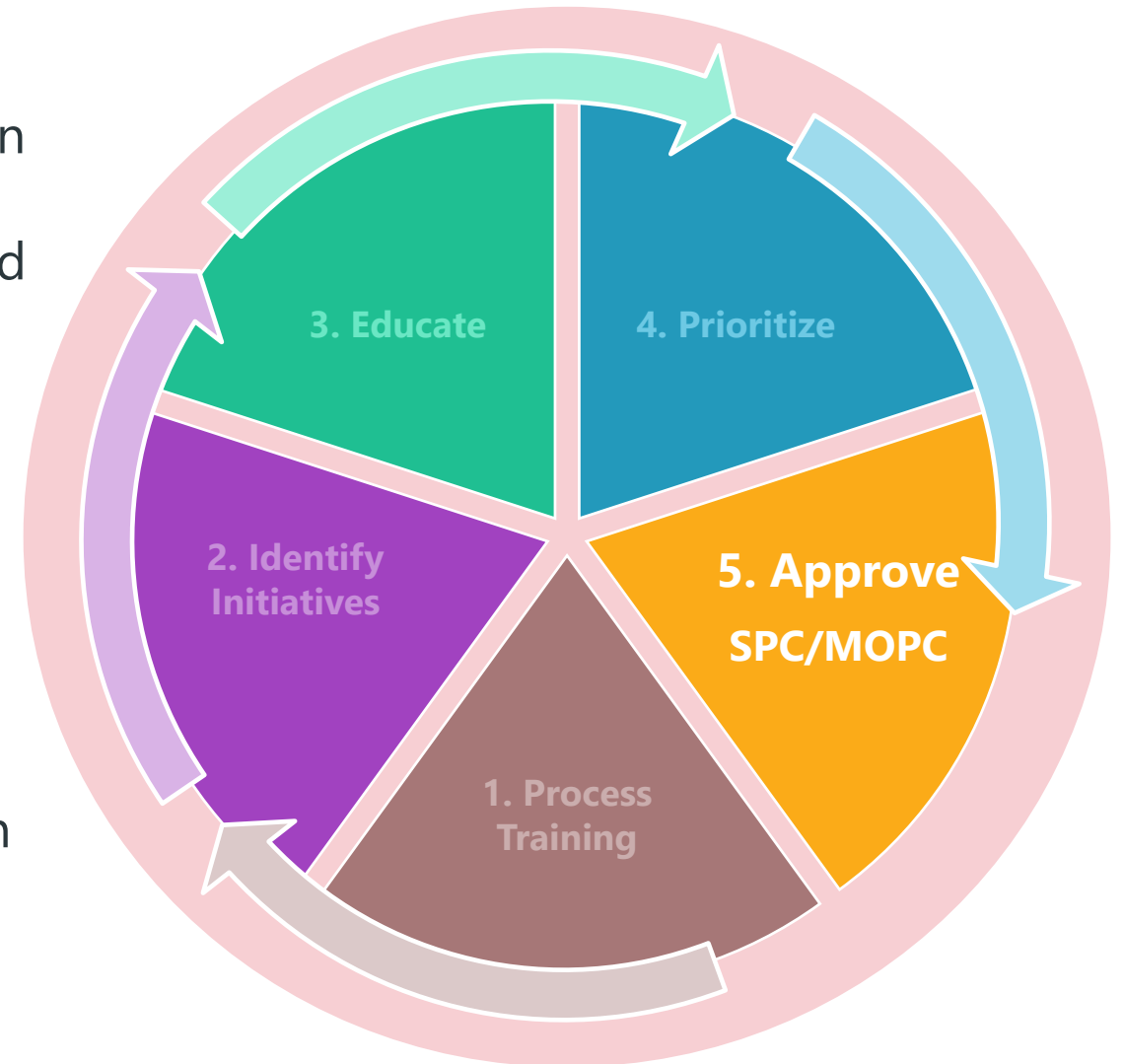
PRIORITIZATION – INITIATIVE DETAILS

- Stakeholder Prioritization Sessions
 - Operations – 3/3
 - Planning – 3/10
 - Markets – 3/15
 - Supply Adequacy & Oversight – NA
- Preview Results

2022 Roadmap Development Remaining Activities

• Approval

- Functional area groups approve prioritization
- SPP proposes schedule based on priority and resource availability
- SPC reviews comprehensive initiative roadmap and analysis
 - Recommendation to MOPC
- MOPC reviews comprehensive initiative roadmap, analysis and SPC recommendation
 - Approves roadmap
- Approved Roadmap input to SPP PMO, budgeting, stakeholder processes





QUESTIONS

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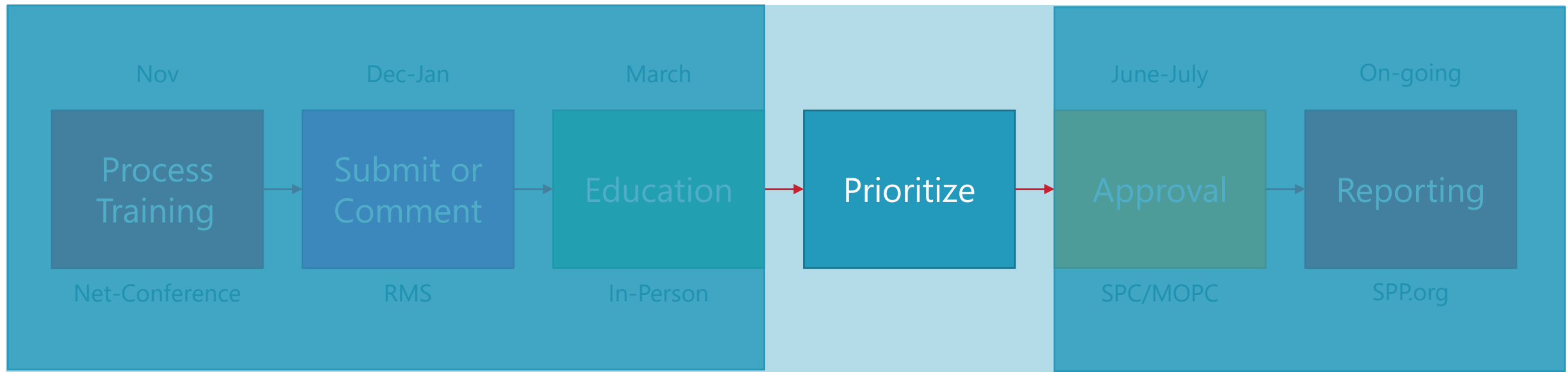
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ADDITIONAL PRIORITIZATION PROCESS SLIDES

ERIN CATHEY

PRIORITIZATION – NEW METHOD DISCUSSION

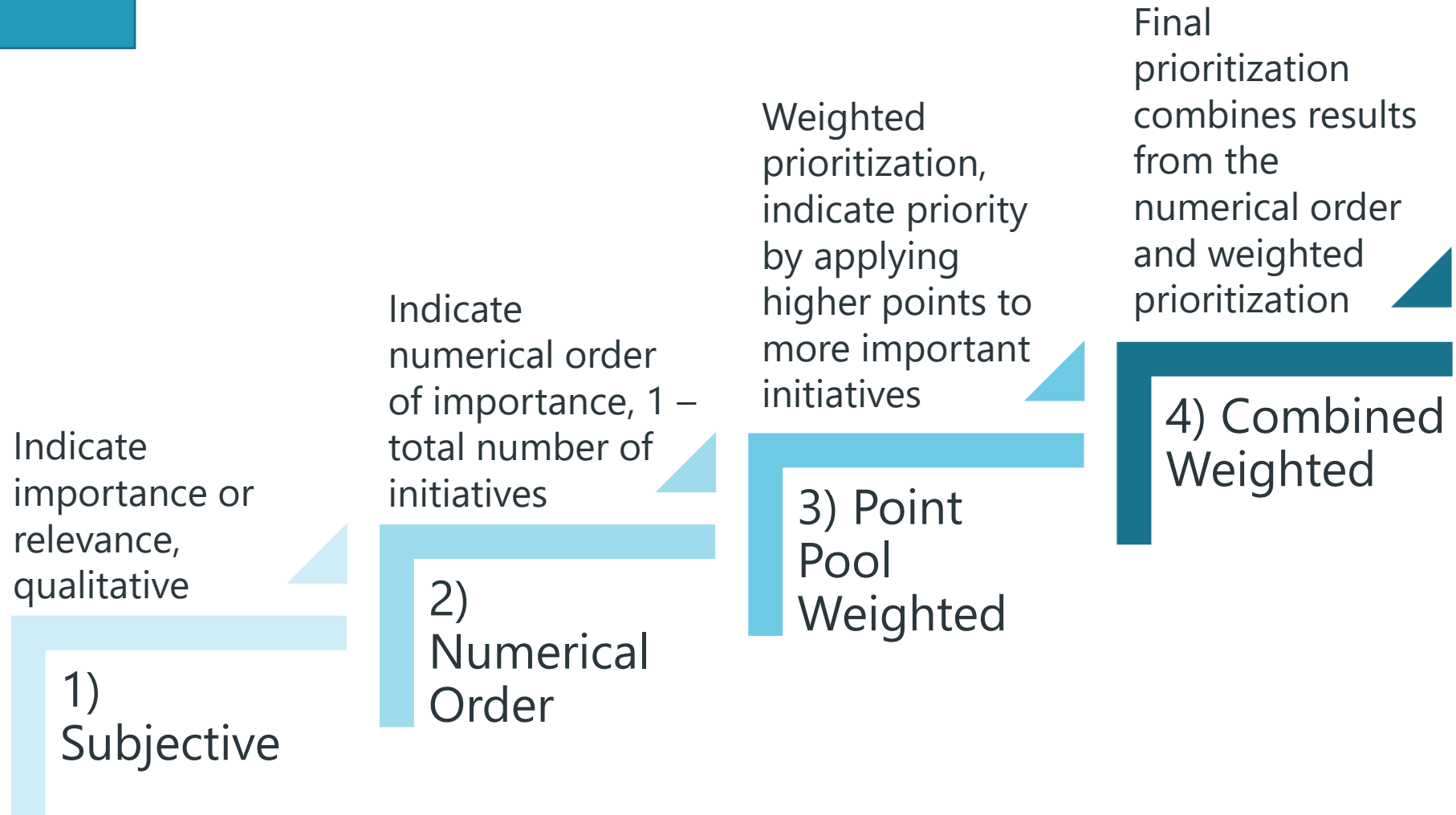
- Value vs. Impact Measure (1-5 score)
 - Define Measures for SPP & Functional Area specific
 - How important is it? (+) factor
 - Value and benefit to SPP & Stakeholders,
 - Impact on business & strategic goals
 - How difficult is it? (-) factor
 - Cost – Implementation, Operational
 - Effort/Complexity – Design, Implementation, Operational
 - Risk – Compliance, Cost to delay
- Classify initiatives into 4 buckets
 - **Must-Have:** non-negotiable, essential, time-sensitive (Mandated/Directed/near completion)
 - **Should-Have:** Important, but not time sensitive
 - **Could-Have:** Improves process/satisfaction, not essential, not time sensitive, no material impact if not pursued
 - **Won't-Have:** Low value, reach, not essential, not time sensitive, no impact, not needed in the next 5 years



- Prioritization of what not when
 - High, Medium, Parking Lot, Reject
- Certain items may necessitate a “fixed” priority
 - FERC Order, NERC/NAESB Standard
 - BOD directive
- Initiatives near completion are not re-prioritized, priority rolls forward
 - Within 18 months from MOPC approval
- Stakeholders, SPP, and SPP MMU will participate in results review
- Online (via email) Excel prioritization tool
- Subjective and programmatic prioritization – 4 tier methodology
 - Qualification Criteria check point
 - Strategic and transparent

Prioritize

INITIATIVE PRIORITIZATION



ADDITIONAL ROADMAP PROCESS SLIDES

Strategic Portfolio Management - Comprehensive Roadmap Development

Train

- Development process training, timeline, lessons learned
- Open forum
- Stakeholder input

Initiative ID

- Qualified Entities submit initiatives – SPP, MMU, Stakeholders
- Submit new/modified initiatives
- Comments submitted
- Request Management System Triage
- Standard Forms & Content
- Supporting material encouraged
- Submit new/modified initiatives
- **Data gathered**

Educate

- Stakeholders determine which initiatives move forward
- Educate & Evaluate initiatives
- Submitters provide education
- Standard forms & content
- Controlled time to present
- **SPP provides value & impact analytics, & Strategic Mapping**
- **Data gathered**

Prioritize

- Stakeholders indicate level of importance-discretionary initiatives
- Programmatic & strategic prioritization methodology
- Includes existing initiatives, unless w/in 18 months of MOPC approval
- Mandated & Directed initiatives not included
- RTO & SPP MMU priority informational
- **Data gathered**

Schedule

- SPP Leadership creates 5 year Roadmap
- Inputs
 - Priority
 - Resource Availability
 - Value & Impact Analytics, & strategic mapping
- **Data gathered**
- Early Triage – Process, system, defect, Program, Project
- **Training, finance, PMO, legal, audit, compliance awareness**

Approve

- SPC endorsed
- MOPC approved
- Approved roadmap drives work
- Data input to SPP resource planning, PMO, and Budgeting process

Ad Hoc Management

- Comprehensive Roadmap continually monitored & adjusted as new initiatives are introduced

Strategic Portfolio Management – Design Development Process

Research & Analysis

- Functional area working groups
- Timing based on schedule
- Conceptual design analysis
- **Value/Cost/Impact analysis**
- Results determine design development approach & path/process
- Whitepaper, Technical Documents created
- MMU advisory
- **Training, finance, PMO, legal, audit, compliance awareness**
- **Data gathered**
- **Analytics & Reporting**



Design Development

- Functional area working groups
- Policy developed according to approved design approach
- **Value/Cost/Impact analysis**
- MMU advisory
- **Training, finance, PMO, legal, audit, compliance awareness**
- **Data gathered**
- **Analytics & Reporting**



Approve

- MOPC
- FERC
- MMU advisory
- **Training, finance, PMO, legal, audit, compliance awareness**
- **Data gathered**
- **Analytics & Reporting**



Implement

- Implementation timing
- **PMO, legal, audit, compliance awareness**
- Coordinated implementation – SPP staff, stakeholders
- Testing
- **Data gathered**
- **Analytics & Reporting**



Validate

- Validate design operates as intended
- ROI
- SPP and stakeholders

INITIATIVE DATA MANAGEMENT

- **Problem**

- Opportunities are lost in existing data management process & tools
- Data collection is redundant, inconsistent, incomplete & done in silos
- Usability is limited
- Reporting is manual & incomplete
- Metric/KPI tracking & reporting is limited and inefficient

- **Goal**

- Implement new, single source data management tool & process
- Introduce data integrity, consistency, automation & programmatic means to pull specific sets of data for reporting progress, success metrics, KPIs, etc.

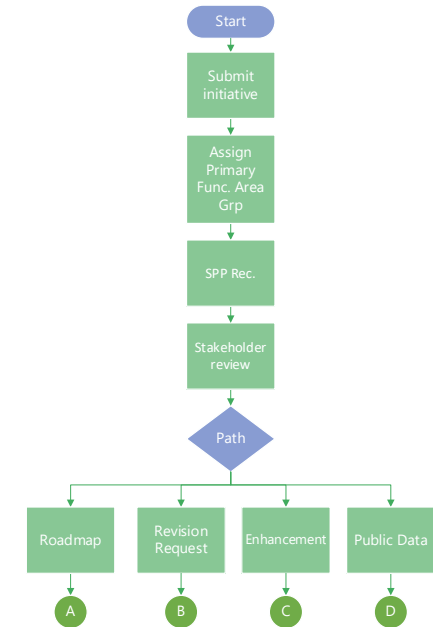
INITIATIVE DATA MANAGEMENT

- Solution
 - Improve data collection, maintenance & reporting
 - Evaluate data collected today, when and how
 - Eliminate redundant and inconsistent data collection and tracking
 - Develop programmatic means of data collection to reduce manual waste and discrepancies
 - Identify data use cases and data needs for value and impact analysis and reporting
 - Define data use cases for tactical & strategic reporting purposes
 - Develop data use cases to improve decision making, resource allocation, strategic vision
 - Develop initiative metrics to measure qualitative & quantitative operational performance as it relates to initiatives

MANAGING AD HOC INITIATIVES – PROCESS OVERVIEW

Case-by-case assessment

1. Ad hoc initiative submitted
2. Assign primary functional area and primary stakeholder group
3. Review initiative with appropriate primary functional area stakeholder group
 - A. Does initiative align with roadmap qualifying criteria?
 - i. No, go to step 3D
 - ii. Yes, go to step 3B
 - B. Assess initiative
 - i. Initiative requires minimal effort, low impact, minimal or no system changes. Go to step 3D.
 - ii. Initiative requires increased effort, greater impact, more involved system changes. Go to step 3C
 - C. Determine appropriate Roadmap priority by affirmative vote (vote is optional)
 - i. Add to existing initiative
 - ii. Reprioritize roadmap to accommodate new initiative
 - iii. Add to Parking Lot
 - iv. Reject/Recommend regular roadmap cycle submission
 - D. Design Development Process (Draft RR or Enhancement, submit project pipeline/budget awareness if appropriate)



RR ROUTING AND APPROVAL CATEGORIES

BASED ON RR CLASSIFICATION

- **Correction** - Revising erroneous language or language that needs clean-up for grammatical errors or inconsistency across governing documents - no changes to intent or policy
- **Clarification** - Revising language to better represent existing intent, no changes to functionality or policy
- **Enhancement** - Revising language to expand upon existing intent or functionality
- **New Language** - New language to accommodate new functionality or policy not existing today
- **NERC Standard Impact** - Specifically state if revision relates to/or impacts NERC Standards, list standard(s)
- **FERC Mandate** - Specifically state if revision relates to/or impacts FERC direction, list docket(s)

RR ROUTING AND APPROVAL CATEGORIES

BASED ON RR CLASSIFICATIONS

- Potential Routing Categories
 - Clean-up, Mandated, and Normal (what we do today)
 - Examples:
 - Clean-up – Correcting grammatical/typographical errors with no change to intent or policy
 - Mandated - NERC prescriptive mandate or FERC prescriptive mandate
- Considering fewer required approvals and fewer group reviews, among other ideas
- Objectives
 - Reduce administrative burden where unnecessary
 - Increase organizational group productivity allowing more time for substantive issues
 - Increase time to policy implementation

ROADMAP DEVELOPMENT RESULTS (MARKET ROADMAP)

Requesting SPC endorsement of the “2020 Strategic Market Roadmap”

	2020 Strategic Market Roadmap		
Rank	Initiative	Est. Start	Est. MOPC
1	SIR 19 - HITT R4: Implement Uncertainty Market Product	2019	2020
2	SIR 17 - HITT R3b: Implement Marketplace Enhancements: Fast Start Resources (Enhancement)	2019	2020
3	SIR 12 - HITT M1: Implement Congestion Hedging Improvements	2019	2020
4	SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market (Phase 1 & 2)	2019	2022
5	SIR 16 - HITT R1-2: Study and Implement ERS and ORS Compensation Models Based on Study Results (Phase 1 & 2)	2019	2022
6	SIR 15, SIR 28, SIR 41 - HITT M4: Study Economic Evaluations of Reliability, Outage Mitigation, TOP Incentives (Phase 1)	2019	2020
7	SIR 13, SIR 50 - HITT M2: Study Offer Requirements for VERs, Incentive for Renewables in Day Ahead Market (Phase 1)	2019	2021
8	SIR 14 - HITT M3: Study Mitigation of Unduly Low Offers that Create Uneconomic Dispatch	2019	2021
9	SIR 30 - HITT S3: Energy Storage Resources & ESR Phase 2 (Phase 1)	2020	2021
10	SIR 7, SIR 9 - Decommitment & Enhanced Commitment	2020	2021
11	SIR 35 - Reduce Self-Commitments & Consider Extending DA Market	2020	2021
12	SIR 38 - RTBM Submit Timing & SIR22 - Limit Market Power Through Physical Parameters	2020	2021
13	SIR 24, SIR 45 - MCR Design Expansion and Enhancements & MCR Logic	2021	2022
14	SIR 32 - Price formation During Conservative Operations & Emergency Conditions	2020	2022
15	SIR 29 - Overlapping Congestion Across Seams	2021	2022
16	SIR 8 - Distributed Energy Resources for Markets	2021	2023
17	SIR 36 - Reg-up for VERS	2021	2022
18	SIR 42 - Transactional Incentives and Scheduling Inefficiencies (Phase 1)	2019	2020
19	SIR 20 - Improved Economic Incentive of Regulation Mileage	2021	2022
20	SIR 53 - Cost Allocation	2024	2026
21	SIR 44 - Ancillary Service Buyback Risk	2021	2022
22	SIR 25 - DC TIE Optimization	2021	2022
23	SIR 5 - Coordinated Transaction Scheduling	2022	2024
24	SIR 10 - FFE Exchange Process	2021	2022
25	SIR 31 - Pre Synchronization Unit Commitment	2022	2023
26	SIR 6 - DA Must Offer and Physically Withholding	2022	2023
27	SIR 51 - Dynamic Scheduling Interchange	2023	2024
28	SIR 52 - DVER Ramp Rate Limits	2022	2023
29	SIR 21, SIR 49 - Interface Pricing & Interfacing Pricing Granularity	2022	2024
30	SIR 11 - Generalized DC	2024	2025
31	SIR 23 - Market-to-Market Allocations	2022	2023
32	SIR 37 - Resource Ramp Rate Interaction	2023	2024
33	SIR 1 - Actual Meter Data for Initials & State Estimator Load Value Tolerance	2024	2025
34	SIR 34 - Real-Time Hedging Product	2022	2024
PL	SIR 33 - Protect Day-Ahead Margin	TBD	TBD
PL	SIR 3 - Cold Start Logic	TBD	TBD
PL	SIR 47 - Enhanced Visual Tools SPP Website	TBD	TBD

ROADMAP RANKING & PRIORITIZATION

- MWG, SPP RTO Staff, SPP MMU Staff, interested stakeholders
- 53 Initiatives submitted, evaluated in education (1) and ranking & prioritization sessions (2)
 - Removed 9 initiatives
 - Combined 13 initiatives
- 44 Initiatives ranked and prioritized
- 3 priority buckets

High Priority
19 Initiatives (9
HITT)
2019-2020

Medium
Priority
22 Initiatives
2020-2024

Parking Lot
3 Initiatives
No Schedule

- 2019-2024

ROADMAP RANKING & PRIORITIZATION

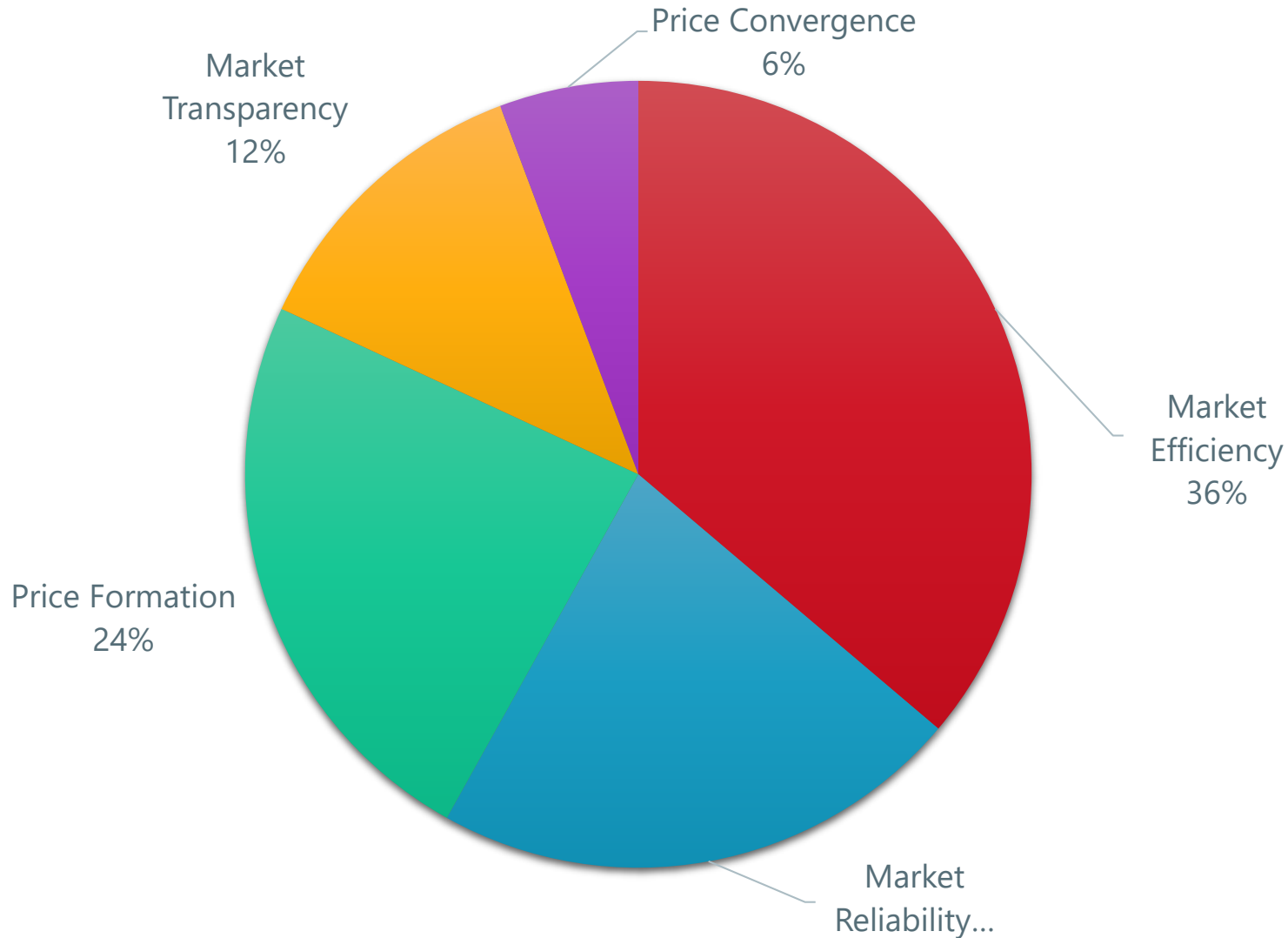
- Initiatives evaluated for value and impact
 - Alignment with Strategic Plan
 - Alignment with MMU issues and ASOM recommendations
 - Enhancement of Key Market Philosophies
 - Market Reliability
 - Market Efficiency
 - Market Transparency
 - Price Formation
 - Price Convergence
 - Potential Impact
 - Design and Implementation Complexity
 - MCE Performance
 - System Changes
 - Other Functional Area Impacts (Planning and Operations)

Transparent and Collaborative

MWG Members and Stakeholders
SPP RTO Staff
SPP MMU Staff

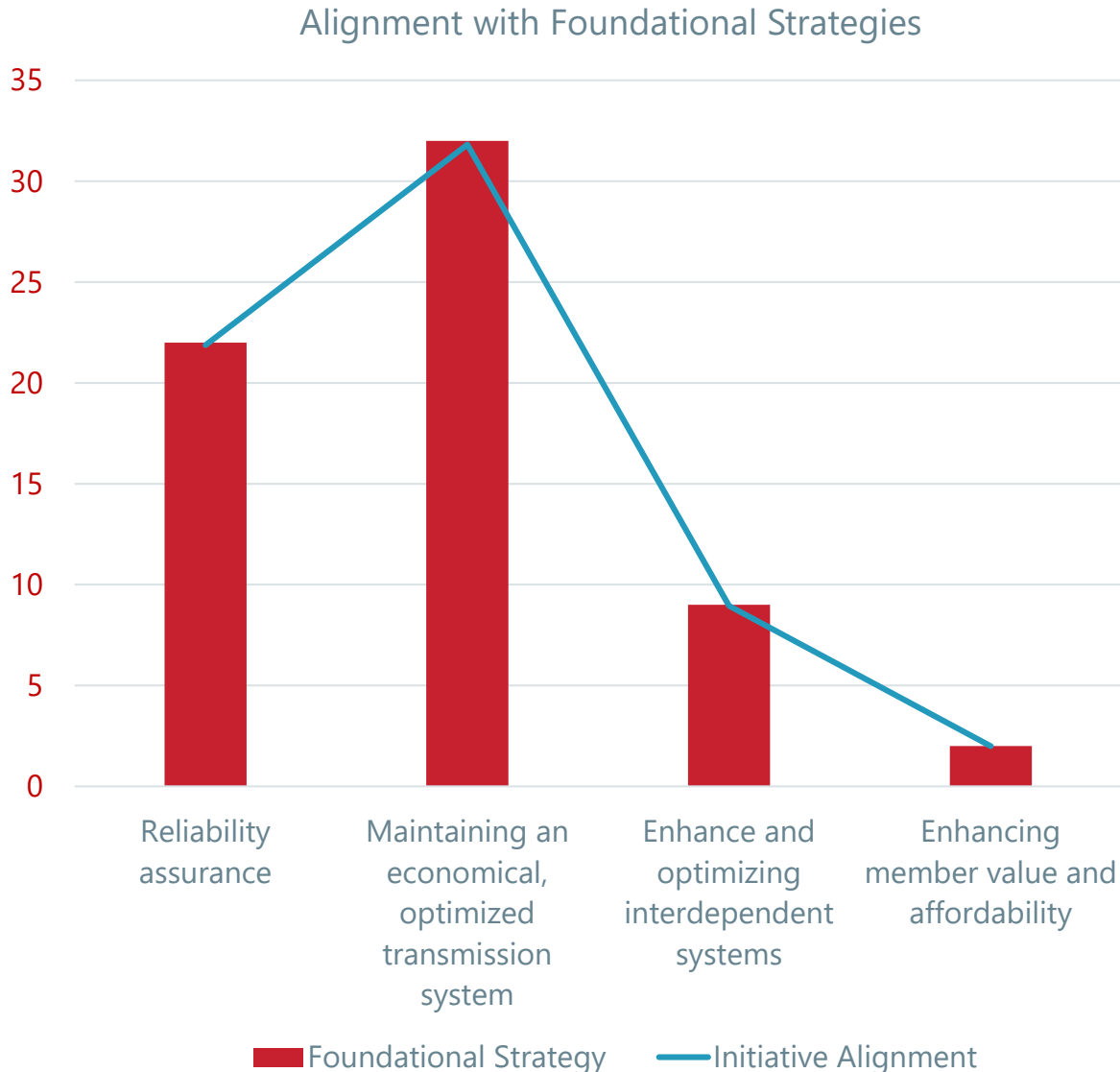
ROADMAP RANKING & PRIORITIZATION RESULTS

Market Philosophy Enhancements



- 36% potentially enhance market efficiency (38/44)
- 24% potentially enhance price formation (25/44)
- 22% potentially enhance market reliability (23/44)
- 12% potentially enhance market transparency (13/44)
- 6% potentially enhance price convergence (6/44)
- *Not included - 2/44 decrease Market Transparency and 4/44 increase risk of opportunity for Market Manipulation*

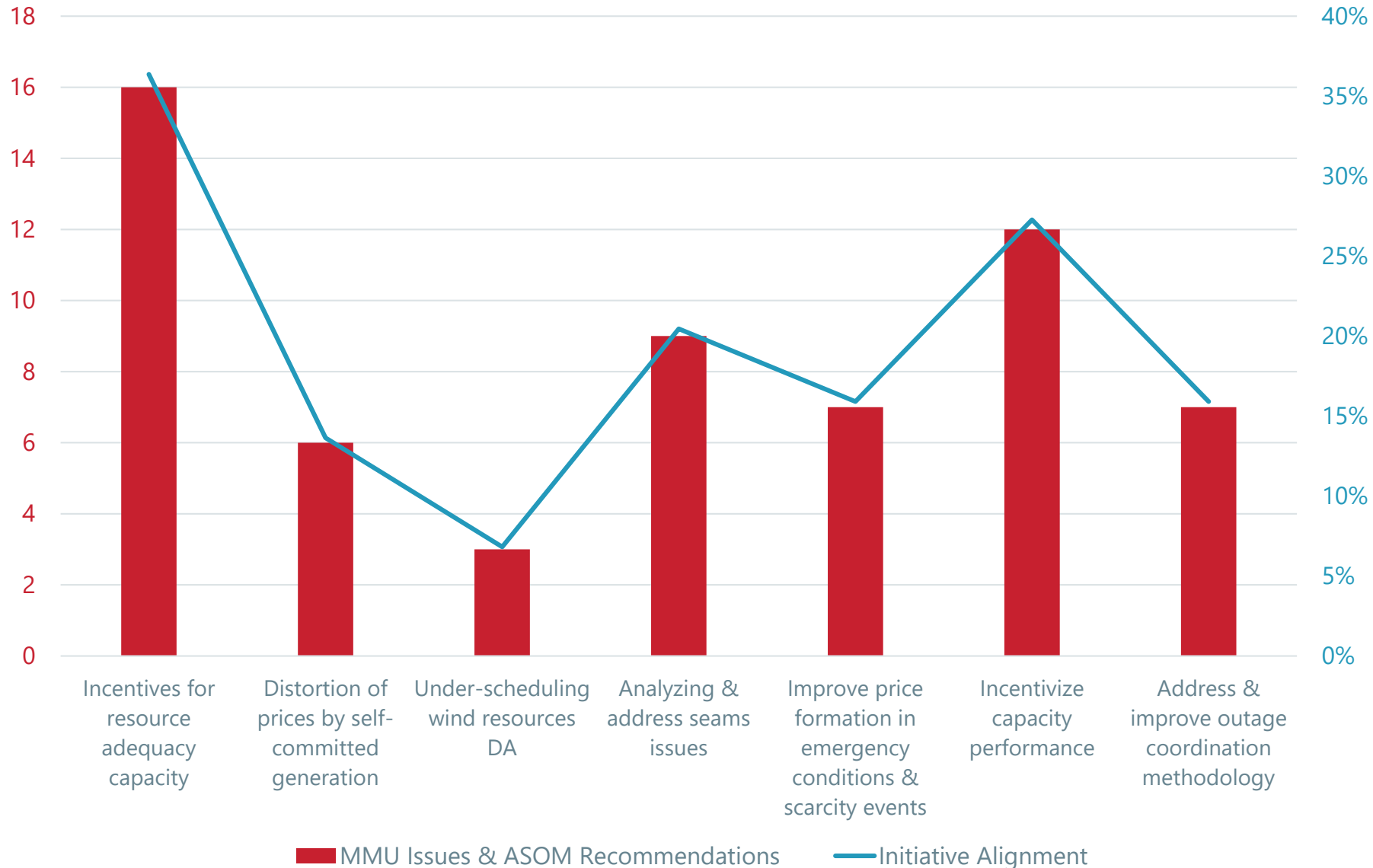
ROADMAP RANKING & PRIORITIZATION RESULTS



- 50% - Align with "Reliability Assurance"
 - Integration of VERS, Security Resilience, Reliability Excellence, and/or Regional Resource Needs
- 73% - Align with "Maintaining an economical, optimized transmission system"
 - ARR/TCR Feasibility, Optimized Strategies for the Future, and/or Value Pricing
- 20% - Align with "Enhance and Optimizing Interdependent Systems"
 - Transmission (Seams), Optimize Markets Efficiencies Along the Seams, and/or Grid Resilience
- 5% - Align with "Enhancing Member Value and Affordability"
 - Communication Strategy, PMO Best Practices, and Strategic Membership Expansion

ROADMAP RANKING & PRIORITIZATION RESULTS

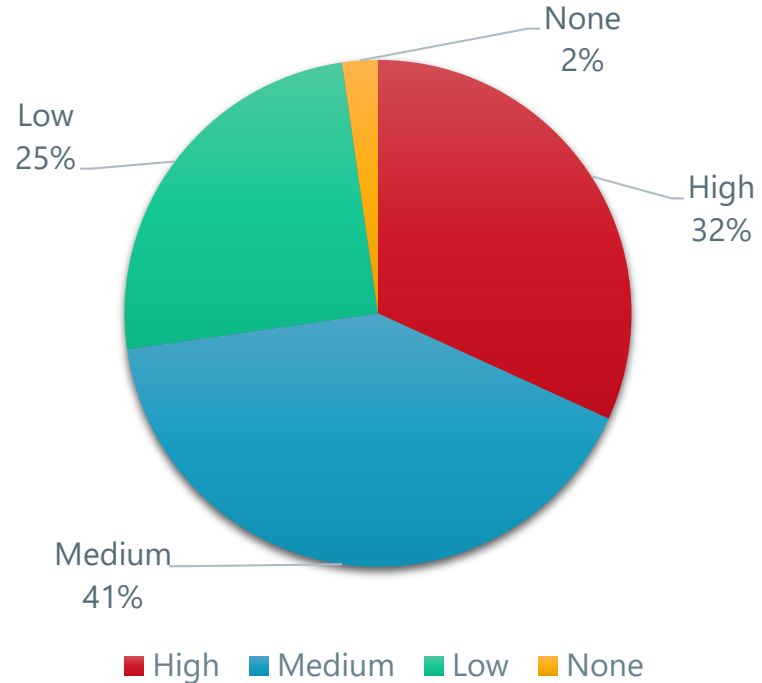
MMU Issues & ASOM Recommendation Alignment



- **36%** address "Incentives for resource adequacy capacity" (16/44)
- **27%** address "Incentivize capacity performance" (12/44)
- **20%** address "Analyzing and addressing seams issues" (9/44)
- **16%** address "Improve Price formation during emergency conditions and scarcity events" (7/44)
- **16%** address "Update and improve outage coordination methodology" (7/44)
- **14%** address "Distortion of prices by self-committed generation" (6/44)
- **7%** address "Under-scheduling of wind resources in DA" (3/44)

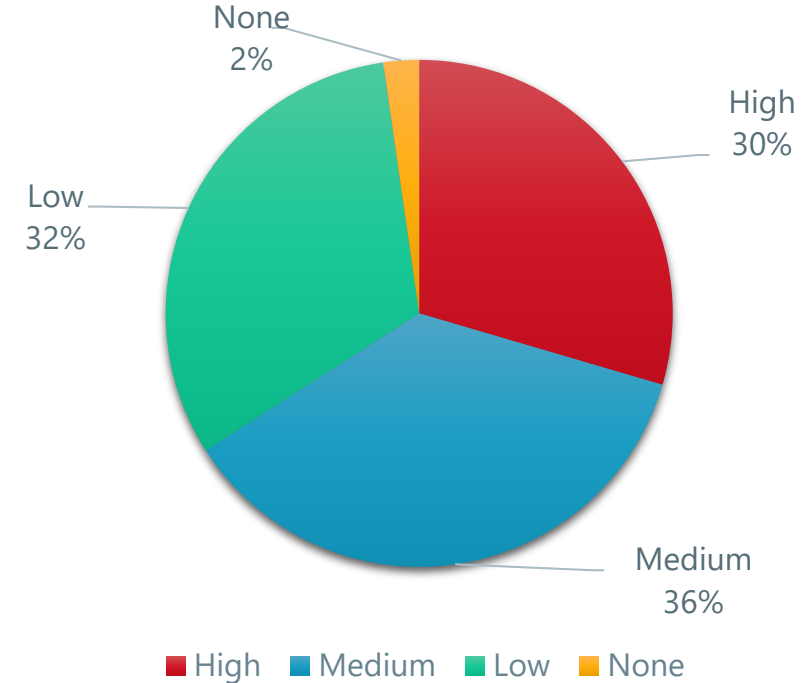
ROADMAP RANKING & PRIORITIZATION RESULTS

Design Complexity



- **High** - **32%** potentially involve a highly complex process to research and analyze design options (14/44)
- **Medium** - **41%** potentially involve a moderately complex process to research and analyze design options (18/44)
- **Low** – **25%** potentially involve a minimally complex process to research and analyze design options (11/44)
- **None** – **2%** will not involve any level of complexity to research and analyze design options (1/44)

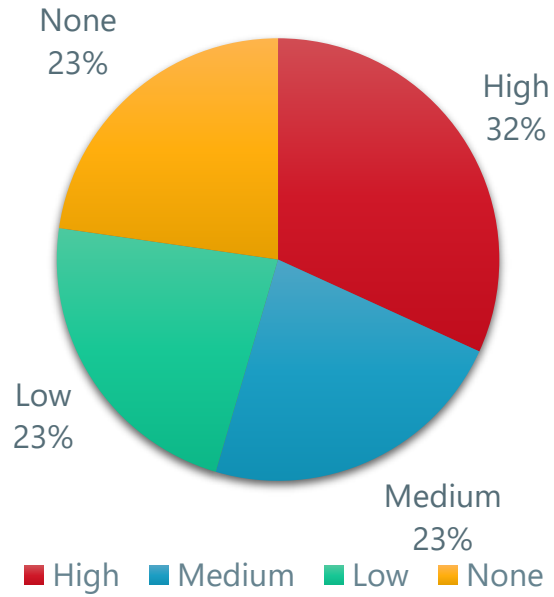
Implementation Effort



- **High** - **30%** potentially involve a highly complex process to implement the chosen design (13/44)
- **Medium** – **36%** potentially involve a moderately complex process to implement the chosen design (16/44)
- **Low** – **25%** potentially involve a minimally complex process to implement the chosen design (14/44)
- **None** – **2%** no level of complexity to implement (1/44)

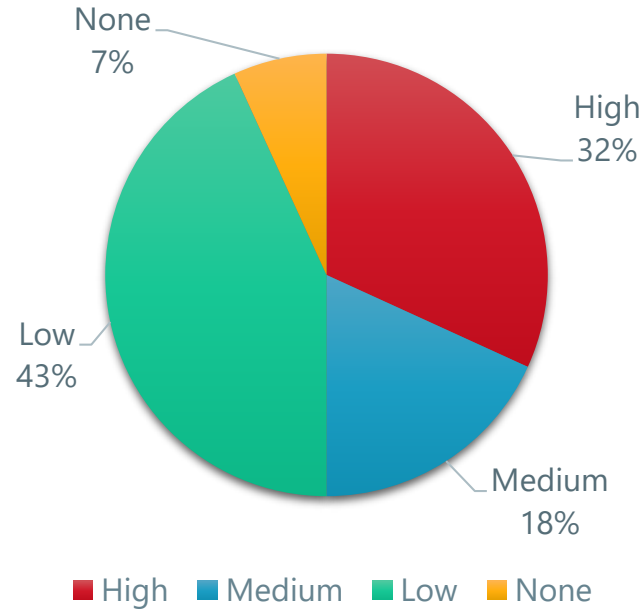
ROADMAP RANKING & PRIORITIZATION RESULTS

MCE Performance Impact



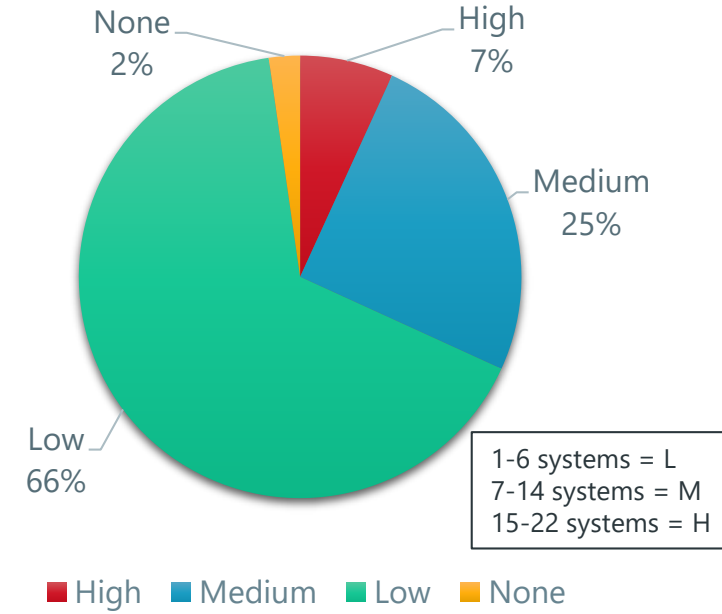
- **High – 32%** potentially highly impact MCE performance (14/44)
- **Medium – 23%** potentially moderately impact MCE performance (10/44)
- **Low – 23%** potentially minimally impact MCE performance (10/44)
- **None – 23%** will not have an impact on MCE performance (10/44)

Overall Market SW Impact



- **High – 32%** potentially require highly involved system changes (14/44)
- **Medium – 18%** potentially require moderately involved system changes (8/44)
- **Low – 43%** potentially require minimally involved system changes (19/44)
- **None – 7%** will not impact systems in a substantial way (3/44)

Number of Systems Impacted



- **High – 7%** impacted a high number of systems (3/44)
- **Medium – 25%** impacted a moderate number of systems (11/44)
- **Low – 66%** impacted a low number of systems (29/44)
- **None – 2%** did not have system impacts (1/44)

Rank	Initiative	Est. Start	Est. MOPC Approval	SPP	MWG	MMU	All
1	SIR 19 - HITT R4: Implement Uncertainty Market Product	2019	2020	1	3	1	1.7
2	SIR 17 - HITT R3b: Implement Marketplace Enhancements: Fast Start Resources (Enhancement)	2019	2020	2	2	3	2.3
3	SIR 12 - HITT M1: Implement Congestion Hedging Improvements	2019	2020	3	8	6	5.7
4	SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market (Phase 1 and 2)	2019	2022	4	1	2	2.3
5	SIR 16 - HITT R1-2: Study & Implement ERS/ORS Compensation Models Based on Study Results (Phase 1 & 2)	2019	2022	5	6	8	6.3
6	SIR 15, SIR 28, SIR 41-HITT M4: Study Eco Evaluations of Reliability, Outage Mitigation, TOP Incentives (Phase 1)	2019	2020	7	5	7	6.3
7	SIR 13, SIR 50-HITT M2: Study Offer Reqs for VERs, incentive for Renewables in Day Ahead Market (Phase 1)	2019	2021	6	4	4	4.7
8	SIR 14 - HITT M3: Study Mitigation of Unduly Low Offers that Create Uneconomic Dispatch	2019	2021	8	7	5	6.7
9	SIR 30 - HITT S3: Energy Storage Resources and ESR Phase 2 (phase 1)	2020	2021	9	10	12	10.3
10	SIR 7, SIR 9 - Decommitment and Enhanced Commitment	2020	2021	13	11	11	11.7
11	SIR 35 - Reduce Self-Commitments and Consider Extending DA Market	2020	2021	14	9	18	13.7
12	SIR 38 - RTBM Submit Timing and SIR22 - Limit Market Power Through Physical Parameters	2020	2021	16	13	19	16.0
13	SIR 24, SIR 45 - MCR Design Expansion and Enhancements & MCR Logic	2021	2022	21	16	16	17.7
14	SIR 32 - Price formation During Conservative Operations and Emergency Conditions	2020	2022	18	12	20	16.7
15	SIR 29 - Overlapping Congestion Across Seams	2021	2022	15	15	24	18.0
16	SIR 8 - Distributed Energy Resources for Markets	2021	2023	11	23	22	18.7
17	SIR 36 - Reg-up for VERS	2021	2022	10	34	15	19.7
18	SIR 42 - Transactional Incentives and Scheduling Inefficiencies (Phase 1)	2019	2020	24	19	9	17.3
19	SIR 20 - Improved Economic Incentive of Regulation Mileage	2021	2022	20	20	21	20.3
20	SIR 53 - Cost Allocation	2024	2026	38	27	23	29.3
21	SIR 44 - Ancillary Service Buyback Risk	2021	2022	27	18	17	20.7
22	SIR 25 - DC TIE Optimization	2021	2022	17	16	37	23.3
23	SIR 5 - Coordinated Transaction Scheduling	2022	2024	32	23	13	22.7
24	SIR 10 - FFE Exchange Process	2021	2022	12	30	26	22.67
25	SIR 31 - Pre Synchronization Unit Commitment	2022	2023	27	27	27	27.0
26	SIR 6 - DA Must Offer and Physically Withholding	2022	2023	19	18	17	18.0
27	SIR 51 - Dynamic Scheduling Interchange	2023	2024	23	32	28	27.7
28	SIR 52 - DVER Ramp Rate Limits	2022	2023	27	23	14	21.3
29	SIR 21, SIR 49 - Interface Pricing & Interfacing Pricing Granularity	2022	2024	22	21	24	22.3
30	SIR 11 - Generalized DC	2024	2025	28	31	32	30.3
31	SIR 23 - Market-to-Market Allocations	2022	2023	28	28	28	28.0
32	SIR 37 - Resource Ramp Rate Interaction	2023	2024	31	26	27	28.0
33	SIR 1 - Actual meter data for Initials and State Estimator Load Value Tolerance	2024	2025	41	21	31	31.0
34	SIR 34 - Real-Time Hedging Product	2022	2024	25	13	39	25.7
PL	SIR 33 - Protect Day-Ahead Margin	TBD	TBD	29	37	29	31.7
PL	SIR 3 - Cold Start Logic	TBD	TBD	33	27	37	32.3
PL	SIR 47 - Enhanced Visual Tools SPP Website	TBD	TBD	37	29	34	33.3

- 14 Initiatives ongoing/new, includes 9 HITT initiatives

Rank	Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
1	SIR 19 - HITT R4: Implement Uncertainty Market Product	2019	2020
2	SIR 17 - HITT R3b: Implement Marketplace Enhancements: Fast Start Resources (Enhancement)	2019	2020
3	SIR 12 - HITT M1: Implement Congestion Hedging Improvements	2019	2020
4	SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market (Phase 1 and 2)	2019	2022
5	SIR 16 - HITT R1-2: Study and Implement ERS and ORS Compensation Models Based on Study Results (Phase 1 & 2)	2019	2022
6	SIR 15, SIR 28, SIR 41 - HITT M4: Study Eco Evaluations of Reliability, Outage Mitigation, TOP Incentives (Phase 1)	2019	2020
7	SIR 13, SIR 50 - HITT M2: Study Offer Reqs for VERs, Incentive for Renewables in DA Market (Phase 1)	2019	2021
8	SIR 14 - HITT M3: Study Mitigation of Unduly Low Offers that Create Uneconomic Dispatch	2019	2021
9	SIR 30 - HITT S3: Energy Storage Resources and ESR Phase 2 (phase 1)	2020	2021
10	SIR 7, SIR 9 - Decommitment and Enhanced Commitment	2020	2021
11	SIR 35 - Reduce Self-Commitments and Consider Extending DA Market	2020	2021
12	SIR 38 - RTBM Submit Timing and SIR22 - Limit Market Power Through Physical Parameters	2020	2021
14	SIR 32 - Price formation During Conservative Operations and Emergency Conditions	2020	2022
18	SIR 42 - Transactional Incentives and Scheduling Inefficiencies (Phase 1)	2019	2020

	+	+	+	+	+	+	+	+
SIR 19 - HITT R4: Implement Uncertainty Market Product	H	H	H	H	H	M	H	L
SIR 17 - HITT R3b: Implement Marketplace Enhancements: Fast Start Resources (Enhancement)	M	H	L	M	H	H	L	L
SIR 12 - HITT M1: Implement Congestion Hedging Improvements	M	M	NA	H	M	L	H	L
SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market	M	H	M	H	M	H	H	L
SIR 16 - HITT R1-2: Study and Implement ERS and ORS Compensation Models Based on Study Results	H	H	M	M	M	M	H	M
SIR 15 - HITT M4: Study Economic Evaluations of Reliability	H	H	L	H	H	H	M	H
SIR 28 - Outage Mitigation	M	M	L	H	H	H	L	M
SIR 41 - TOP Incentives	M	M	L	H	H	H	H	M
SIR 13 - HITT M2: Study Offer Requirements for VERs	M	H	L	L	L	L	M	L
SIR 50 - Incentive for Renewables in Day Ahead Market	M	M	L	M	M	M	H	L
SIR 14 - HITT M3: Study Mitigation of Unduly L Offers that Create Uneconomic Dispatch	H	H	NA	L	L	L	H	L
SIR 30 - HITT S3: Energy Storage Resources and ESR Phase 2	L	H	L	H	H	H	M	L
SIR 7 - Decommitment	M	M	L	H	M	H	L	M
SIR 9 - Enhanced Commitment	M	M	M	H	M	M	M	L
SIR 35 - Reduce Self-Commitments and Consider Extending DA Market	M	M	H	M	M	H	M	L
SIR 38 - RTBM Submit Timing and SIR22 - Limit Market Power Through Physical Parameters	M	NA	L	M	M	L	L	L
SIR 22 - Limit Market Power Through Physical Parameters	M	NA	L	M	M	L	L	L
SIR 32 - Price formation During Conservative Operations and Emergency Conditions	L	M	M	M	M	L	M	L
SIR 42 - Transactional Incentives and Scheduling Inefficiencies	M	M	L	L	L	L	H	L
	1	2	3	4	5	6	7	8

- + Potential Value Add**
 1. Market Philosophy Enhancement
 2. Strategic Plan Alignment
 3. MMU issue/recommendation alignment
- Potential Short-term impact**
 4. Design Complexity
 5. Implementation Complexity
- Potential Long-term impact**
 6. MCE performance
 7. Overall system change
 8. Number of systems changed

- 8 new initiatives planned to start, 9 initiatives ongoing

Rank	New Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
13	SIR 24, SIR 45 - MCR Design Expansion and Enhancements & MCR Logic	2021	2022
15	SIR 29 - Overlapping Congestion Across Seams	2021	2022
16	SIR 8 - Distributed Energy Resources for Markets	2021	2023
17	SIR 36 - Reg-up for VERS	2021	2022
19	SIR 20 - Improved Economic Incentive of Regulation Mileage	2021	2022
21	SIR 44 - Ancillary Service Buyback Risk	2021	2022
22	SIR 25 - DC TIE Optimization	2021	2022
24	SIR 10 - FFE Exchange Process	2021	2022

	Ongoing Initiatives		
4	SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market (Phase 1 and 2)	2019	2022
5	SIR 16 - HITT R1-2: Study and Implement ERS and ORS Compensation Models Based on Study Results (Phase 1 & 2)	2019	2022
7	SIR 13, SIR 50 - HITT M2: Study Offer Requirements for VERs, Incentive for Renewables in Day Ahead Market (Phase 1)	2019	2021
8	SIR 14 - HITT M3: Study Mitigation of Unduly Low Offers that Create Uneconomic Dispatch	2019	2021
9	SIR 30 - HITT S3: Energy Storage Resources and ESR Phase 2 (phase 1)	2020	2021
10	SIR 7, SIR 9 - Decommitment and Enhanced Commitment	2020	2021
11	SIR 35 - Reduce Self-Commitments and Consider Extending DA Market	2020	2021
12	SIR 38 - RTBM Submit Timing and SIR22 - Limit Market Power Through Physical Parameters	2020	2021
14	SIR 32 - Price formation During Conservative Operations and Emergency Conditions	2020	2022

	+	+	+	-	-	-	-
SIR 24 - MCR Design Expansion and Enhancements	M	L	M	M	M	M	M
SIR 45 - MCR Logic	H	L	M	L	L	H	M
SIR 29 - Overlapping Congestion Across Seams	M	L	L	M	L	M	L
SIR 8 - Distributed Energy Resources for Markets	M	M	L	H	H	H	H
SIR 36 - Reg-up for VERS	L	M	NA	L	L	L	L
SIR 20 - Improved Economic Incentive of Regulation Mileage	L	L	NA	M	L	L	M
SIR 44 - Ancillary Service Buyback Risk	M	L	NA	L	M	M	H
SIR 25 - DC TIE Optimization	L	H	L	M	M	H	L
SIR 10 - FFE Exchange Process	L	M	L	M	L	L	L
	1	2	3	4	5	6	7

+ Potential Value Add

1. Market Philosophy Enhancement
2. Strategic Plan Alignment
3. MMU issue/recommendation alignment

- Potential Short-term impact

4. Design Complexity
5. Implementation Complexity

- Potential Long-term impact

6. MCE performance
7. Overall system change
8. Number of systems changed

- 7 new initiatives planned to start, 11 initiatives ongoing

Rank	New Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
23	SIR 5 - Coordinated Transaction Scheduling	2022	2024
25	SIR 31 - Pre Synchronization Unit Commitment	2022	2023
26	SIR 6 - DA Must Offer and Physically Withholding	2022	2023
28	SIR52 - DVER Ramp Rate Limits	2022	2023
29	SIR 21, SIR 49 - Interface Pricing & Interfacing Pricing Granularity	2022	2024
31	SIR 23 - Market-to-Market Allocations	2022	2023
34	SIR 34 - Real-Time Hedging Product	2022	2024

	Ongoing Initiatives		
4	SIR 18 - HITT R3c: Implement Marketplace Enhancements: Multi-Day Market (Phase 1 and 2)	2019	2022
5	SIR 16 - HITT R1-2: Study and Implement ERS and ORS Compensation Models Based on Study Results (Phase 1 & 2)	2019	2022
13	SIR 24, SIR 45 - MCR Design Expansion and Enhancements & MCR Logic	2021	2022
14	SIR 32 - Price formation During Conservative Operations and Emergency Conditions	2020	2022
15	SIR 29 - Overlapping Congestion Across Seams	2021	2022
16	SIR 8 - Distributed Energy Resources for Markets	2021	2023
17	SIR 36 - Reg-up for VERS	2021	2022
19	SIR 20 - Improved Economic Incentive of Regulation Mileage	2021	2022
21	SIR 44 - Ancillary Service Buyback Risk	2021	2022
22	SIR 25 - DC TIE Optimization	2021	2022
24	SIR 10 - FFE Exchange Process	2021	2022

	+	+	+	-	-	-	-	-
SIR 5 - Coordinated Transaction Scheduling	M	M	L	H	H	L	L	M
SIR 31 - Pre Synchronization Unit Commitment	M	L	M	M	H	H	H	M
SIR 6 - DA Must Offer and Physically Withholding	L	M	L	M	L	L	M	L
DVER Ramp Rate Limits	M	L	L	L	L	L	L	L
SIR 21 - Interface Pricing	M	M	L	M	L	L	H	L
SIR 49 - Interfacing Pricing Granularity	M	M	L	L	L	L	H	L
SIR 23 - Market-to-Market Allocations	L	L	L	H	H	L	L	L
SIR 34 - Real-Time Hedging Product	L	L	NA	M	M	H	L	M
	1	2	3	4	5	6	7	8

+ Potential Value Add

1. Market Philosophy Enhancement
2. Strategic Plan Alignment
3. MMU issue/recommendation alignment

■ Potential Short-term impact

4. Design Complexity
5. Implementation Complexity

■ Potential Long-term impact

6. MCE performance
7. Overall system change
8. Number of systems changed

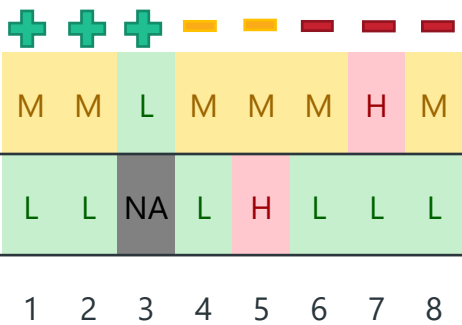
- 2 new initiatives planned to start, 8 initiatives ongoing

Rank	New Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
27	SIR51 - Dynamic Scheduling Interchange	2023	2024
32	SIR 37 - Resource Ramp Rate Interaction	2023	2024

	Ongoing Initiatives		
16	SIR 8 - Distributed Energy Resources for Markets	2021	2023
23	SIR 5 - Coordinated Transaction Scheduling	2022	2024
25	SIR 31 - Pre Synchronization Unit Commitment	2022	2023
26	SIR 6 - DA Must Offer and Physically Withholding	2022	2023
28	SIR52 - DVER Ramp Rate Limits	2022	2023
29	SIR 21, SIR 49 - Interface Pricing & Interfacing Pricing Granularity	2022	2024
31	SIR 23 - Market-to-Market Allocations	2022	2023
34	SIR 34 - Real-Time Hedging Product	2022	2024

Dynamic Schedule Interchange

SIR 37 - Resource Ramp Rate Interaction



- + Potential Value Add**
 - 1. Market Philosophy Enhancement
 - 2. Strategic Plan Alignment
 - 3. MMU issue/recommendation alignment
- Potential Short-term impact**
 - 4. Design Complexity
 - 5. Implementation Complexity
- Potential Long-term impact**
 - 6. MCE performance
 - 7. Overall system change
 - 8. Number of systems changed

- 3 new initiatives planned to start, 5 initiatives ongoing

Rank	New Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
20	SIR 53 - Cost Allocation	2024	2026
30	SIR 11 - Generalized DC	2024	2025
33	SIR 1 - Actual meter data for Initials and State Estimator Load Value Tolerance	2024	2025

	Ongoing Initiatives		
23	SIR 5 - Coordinated Transaction Scheduling	2022	2024
27	SIR51 - Dynamic Scheduling Interchange	2023	2024
29	SIR 21, SIR 49 - Interface Pricing & Interfacing Pricing Granularity	2022	2024
32	SIR 37 - Resource Ramp Rate Interaction	2023	2024
34	SIR 34 - Real-Time Hedging Product	2022	2024

	+	+	+	-	-	-	-	-
Cost Allocation	M	L	NA	H	H	M	L	H
SIR 11 - Generalized DC	L	M	L	H	H	H	L	M
SIR 1 - Actual meter data for Initials and State Estimator Load Value Tolerance	NA	NA	NA	L	L	L	L	L
	1	2	3	4	5	6	7	8

- +

Potential Value Add

1.

Market Philosophy Enhancement

2.

Strategic Plan Alignment

3.

MMU issue/recommendation alignment
- Potential Short-term impact

4.

Design Complexity

5.

Implementation Complexity
- Potential Long-term impact

6.

MCE performance

7.

Overall system change

8.

Number of systems changed

PARKING LOT

A living work plan for enhancing SPP's Future

- 3 initiatives not planned

Rank	Initiatives	Est. Research and Analysis Start	Est. MOPC Approval
PL	SIR 33 - Protect Day-Ahead Margin	TBD	TBD
PL	SIR 3 - Cold Start Logic	TBD	TBD
PL	SIR 47 - Enhanced Visual Tools SPP Website	TBD	TBD