



WINTER WEATHER EVENT TIER 1 INITIATIVES

PROGRESS REPORT – JUNE 2022

By Erin Cathey, Lee Elliott & Scott Maple

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PROJECT VITALS

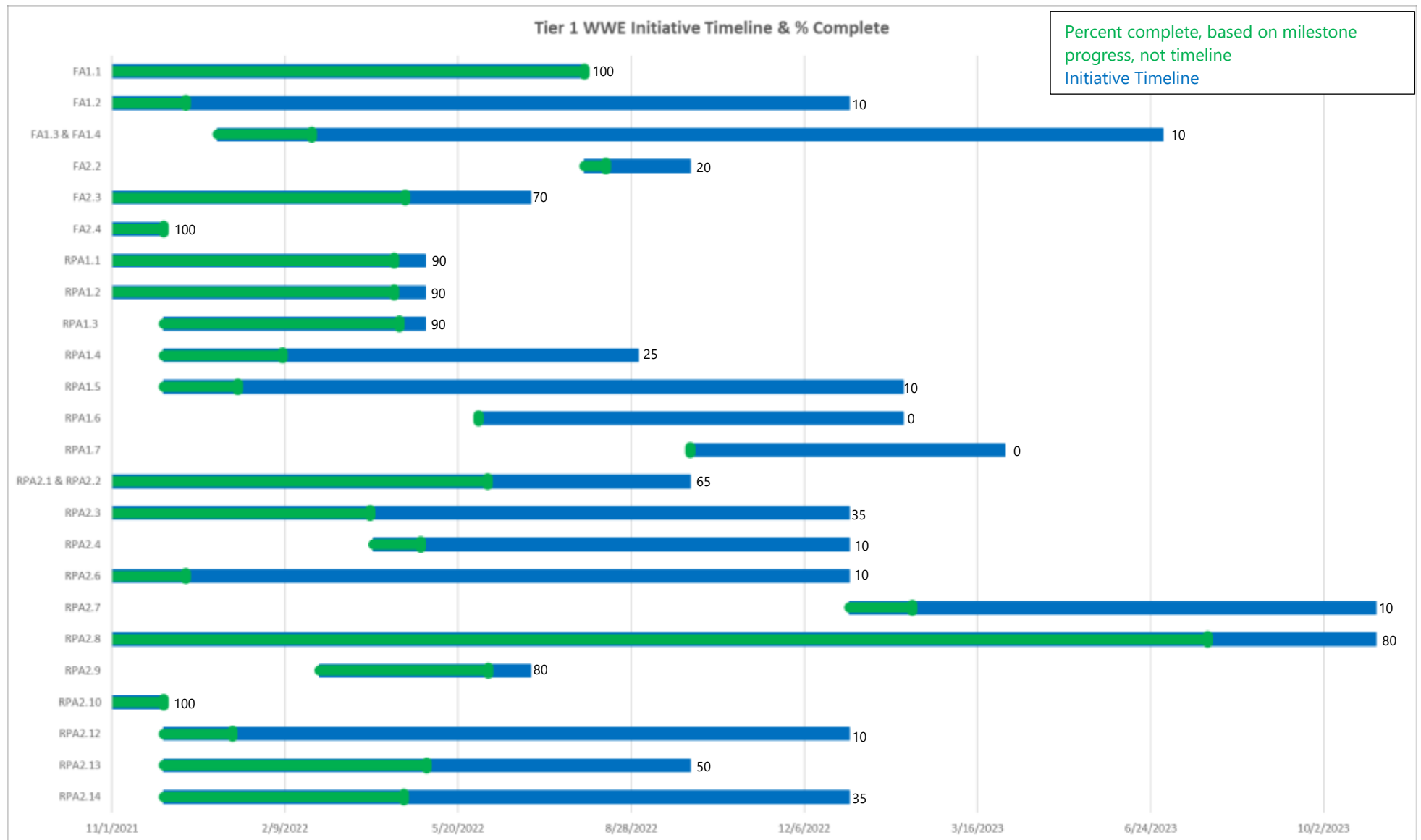
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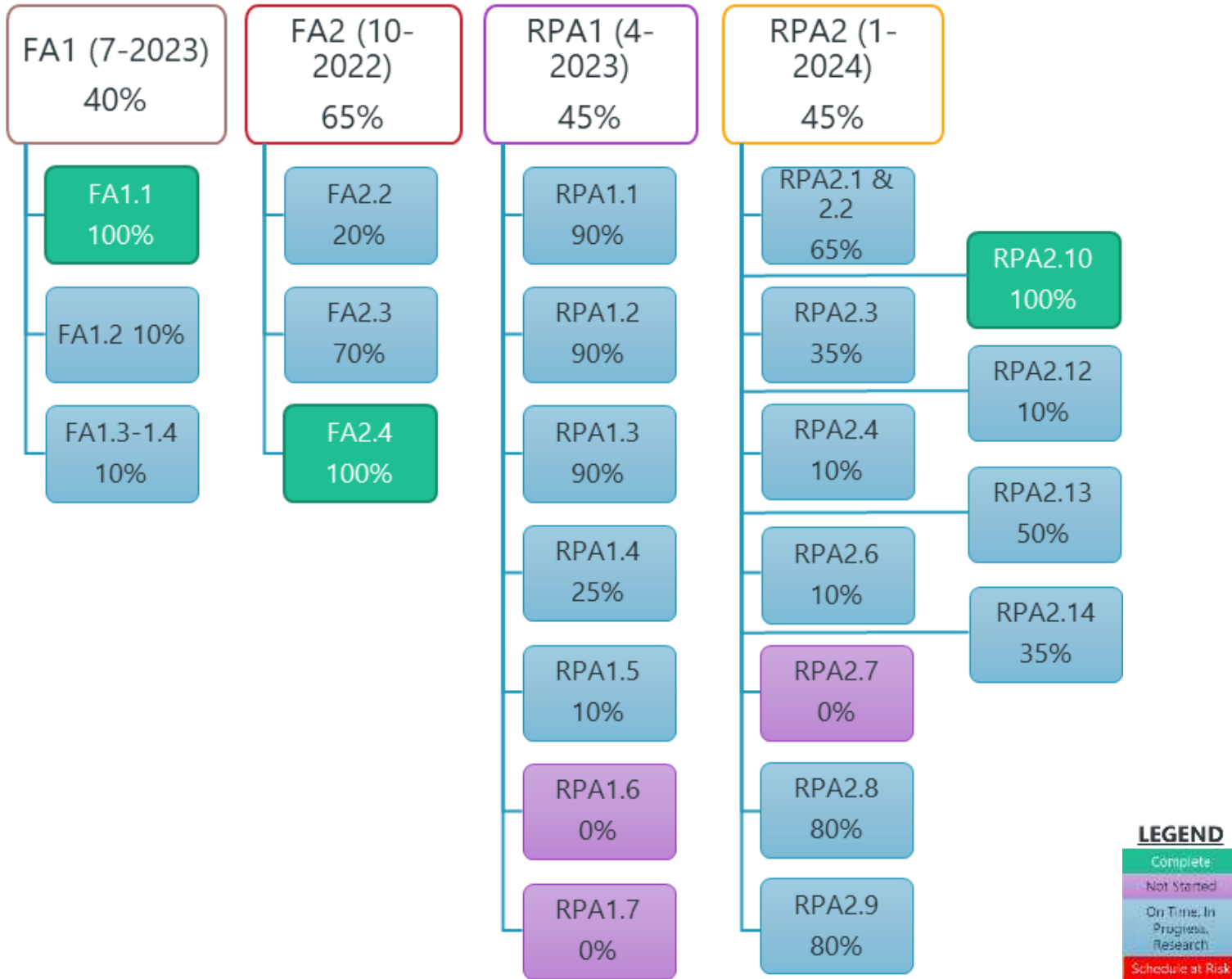
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PROGRESS AT A GLANCE – GANTT VIEW



PROGRESS AT A GLANCE - % COMPLETE BY AREA



PROGRESS PLANNED VS ACTUAL

ID	PLANNED START	ACTUAL START	PLANNED FINISH	ACTUAL FINISH	%
FA1.1	Nov-21	Nov-21	Aug-22	Jan-22	100%
FA1.2	Nov-21	Nov-21	Jan-23		10%
FA1.3 & FA1.4	Jan-22	Feb-22	Jul-23		10%
FA2.2	Aug-22	Apr-22	Oct-22		20%
FA2.3	Nov-21	Nov-21	Jul-22		70%
FA2.4	Nov-21	Nov-21	Dec-21	Dec-21	100%
RPA1.1	Nov-21	Nov-21	May-22		90%
RPA1.2	Nov-21	Nov-21	May-22		90%
RPA1.3	Dec-21	Dec-21	May-22		90%
RPA1.4	Dec-21	Dec-21	Sep-22		25%
RPA1.5	Dec-21	Dec-21	Feb-23		10%
RPA1.6	Jun-22		Feb-23		0%
RPA1.7	Oct-22		Apr-23		0%
RPA2.1 & RPA2.2	Nov-21	Nov-21	Oct-22		65%
RPA2.3	Nov-21	Nov-21	Jan-23		35%
RPA2.4	Apr-22	Nov-21	Jan-23		10%
RPA2.6	Nov-21	Nov-21	Jan-23		10%
RPA2.7	Jan-23	Apr-22	Jan-24		10%
RPA2.8	Nov-21	Nov-21	Jan-24		80%
RPA2.9	Mar-22	Mar-22	Jul-22		80%
RPA2.10	Nov-21	Nov-21	Dec-21	Dec-21	100%
RPA2.12	Dec-21	Dec-21	Jan-23		10%
RPA2.13	Dec-21	Dec-21	Oct-22		50%
RPA2.14	Dec-21	Dec-21	Jan-23		35%

SUMMARY STATUS

OVERALL STATUS

Initiative business owners and project teams are actively working assignments across the four Tier 1 initiative sets:

- SIR205 Fuel Assurance 1; 40% complete
- SIR210 Fuel Assurance 2; 65% complete
- SIR219 Resource Planning & Availability 1; 45% complete
- SIR220 Resource Planning & Availability 2; 45% complete

At its May meeting, the IRATF approved modifications to the monthly tracking report to include an overall IRATF timeline and to clarify language for certain initiatives. The task force also heard its first report from the SIR219 RPA1 team covering reliability attributes (today and future) and an assessment of resource capability. Specifically, SPP staff reviewed RPA1.1-RPA1.3 spanning:

- Inertia's importance for maintaining frequency on the Interconnection
- Primary frequency response's role in detecting drops in frequency on the system
- Voltage support's and reactive support voltage's importance to real power delivery on the system
- Contingency reserve's role in responding quickly to generation loss
- Black start capability's criticality to restoring the bulk power system in the event of power losses
- Ramp and its importance to responding to rapidly changing system conditions
- Resource flexibility's role in maintaining grid reliability

The IRATF in May also heard staff updates on:

- SIR221/SIR222 RPA2.1/RPA2.2 – Status of performance accreditation under review in the SAWG.
- SIR213 FA2.3 – Additional outreach SPP has undertaken to expand the RTO's role in gas-electric coordination.

SPP and MMU staff are working to determine next steps based on MMU analysis of potential gaps in alignment between MMU and staff understanding of scope within certain Tier 1 initiatives. The results will be reviewed with the IRATF in July.

For updates on the individual initiatives, please reference the executive summaries below.

SCHEDULE HEALTH OVERVIEW

This section indicates the health of each initiative, and the sub-initiatives for each, related to the BOD-approved schedule. It also identifies activities in progress vs. those that have been completed.

STATE: IN PROGRESS

INITIATIVE	SCHEDULE HEALTH	SCHEDULED FINISH	COMMENTS
SIR205 FUEL ASSURANCE 1: DEVELOP POLICIES THAT ENHANCE FUEL ASSURANCE TO IMPROVE GENERATION AVAILABILITY & RELIABILITY IN SPP REGION		JUL 2023	40% COMPLETE, INITIATIVES UNDER FA1 ARE ON TRACK. 1 COMPLETE AND 2 IN PROGRESS & SEEKING WORKING GROUP GUIDANCE
SIR207 FA1.2		JAN 2023	IN PROGRESS; WORKING GROUP REVIEWS ONGOING, VENDOR ENGAGED TO ASSIST
SIR208 FA1.3 AND SIR209 FA1.4		JUL 2023	IN PROGRESS; REQUESTING SAWG/MWG INPUT BEFORE RETURNING TO IRATF IN AUGUST/SEPTEMBER 2022
SIR210 FUEL ASSURANCE 2: EVALUATE AND ADVOCATE FOR IMPROVEMENTS IN GAS INDUSTRY POLICY NEEDED TO ASSURE GAS SUPPLY IS READILY AVAILABLE DURING EXTREME EVENTS, INCLUDING CONSIDERING A POTENTIAL GAS PRICE CAP		OCT 2022	65% COMPLETE, THREE INITIATIVES; 1 COMPLETE, 1 NOT STARTED, 1 IN PROGRESS
SIR212 FA2.2		OCT 2022	IN PROGRESS; MWG WILL REVIEW POSITION PAPER ON NEED FOR GAS CAP IN JULY 2022

SIR213 FA2.3		JUL 2022	IN PROGRESS; FORCE MAJEURE LANGUAGE RECOMMENDATIONS TO IRATF FOR ENDORSEMENT IN JUNE 2022
SIR219 RESOURCE PLANNING & AVAILABILITY 1: PERFORM INITIAL AND ONGOING ASSESSMENTS OF MINIMUM RELIABILITY ATTRIBUTES NEEDED FROM SPP'S RESOURCE MIX		APR 2023	45% COMPLETE, ALL INITIATIVES UNDER RPA1 ARE ON TRACK. RPA1.6 & 1.7 WILL START WORK WHEN RPA1.1-1.5 HAVE PROGRESSED
SIR219.1 RPA1.1		MAY 2022	IN PROGRESS; NEXT STEPS UNDER CONSIDERATION BASED ON IRATF FEEDBACK IN MAY 2022
SIR219.2 RPA1.2		MAY 2022	IN PROGRESS; NEXT STEPS UNDER CONSIDERATION BASED ON IRATF FEEDBACK IN MAY 2022
SIR219.3 RPA1.3		MAY 2022	IN PROGRESS; NEXT STEPS UNDER CONSIDERATION BASED ON IRATF FEEDBACK IN MAY 2022
SIR219.4 RPA1.4		SEP 2022	IN PROGRESS; IN PROGRESS; RESEARCH & ANALYSIS, FINDINGS/RECOMMENDATIONS WILL BE PRESENTED TO IRATF IN SEP 2022
SIR219.5 RPA1.5		FEB 2023	IN PROGRESS; IN PROGRESS; RESEARCH & ANALYSIS, FINDINGS/RECOMMENDATIONS WILL BE PRESENTED TO IRATF IN FEB 2023
SIR219.6 RPA1.6		FEB 2023	START DATE JUN 2022; WILL START FOLLOWING OUTCOME OF RPA1.5
SIR219.7 RPA1.7		APR 2023	START DATE TENTATIVELY OCT 2022 PENDING RPA1.1-1.6 RESULTS

<p>SIR220 RESOURCE PLANNING & AVAILABILITY 2: IMPROVE/DEVELOP POLICIES THAT ENSURE RESOURCES WILL BE AVAILABLE DURING NORMAL AND EXTREME CONDITIONS</p>		<p>JAN 2024</p>	<p>45% COMPLETE, 1 COMPLETE, 8 IN PROGRESS, 1 NOT STARTED</p>
<p>SIR221 RPA2.1 & SIR222 RPA2.2</p>		<p>OCT 2022</p>	<p>IN PROGRESS; REQUESTING IRATF APPROVAL OF POLICY PAPER IN JUNE 2022; DESIGN TO IRATF IN JULY 2022, FOLLOWED BY RR DRAFT FOR OCT 2022 MOPC</p>
<p>SIR223 RPA2.3</p>		<p>JAN 2023</p>	<p>IN PROGRESS; WORKING WITH SAWG/MWG TO DEVELOP RECOMMENDATIONS</p>
<p>SIR224 RPA2.4</p>		<p>JAN 2023</p>	<p>IN PROGRESS; WORKING WITH SAWG/MWG TO DEVELOP INCENTIVES</p>
<p>SIR226 RPA2.6</p>		<p>JAN 2023</p>	<p>IN PROGRESS; SEP-OCT 2022 SAWG, NOV-DEC 2022 IRATF, JAN 2023 MOPC WITH RR</p>
<p>SIR227 RPA2.7</p>		<p>JAN 2024</p>	<p>START DATE JUN 2023; WILL BEGIN FOLLOWING COMPLETION OF FA2.1 AND RPA2.6</p>
<p>SIR228 RPA2.8</p>		<p>JAN 2024</p>	<p>IN PROGRESS; UPDATE TO IRATF ON GENERATOR OWNER DATA REQUEST AT JUNE 2022 IRATF; SAWG RECOMMENDATION TO IRATF PLANNED FOR OCT 2023</p>
<p>SIR229 RPA2.9</p>		<p>JUL 2022</p>	<p>IN PROGRESS; JUNE 2022 IRATF REVIEW OF RESULTS FROM SENSITIVITY ANALYSIS ON 2021 LOLE STUDY MODEL</p>
<p>SIR232 RPA2.12</p>		<p>JAN 2023</p>	<p>IN PROGRESS; DEFERRED TO ORWG AND WILL REVISIT WITH IRATF AS NEEDED</p>

SIR233 RPA2.13		OCT 2022	IN PROGRESS; SOLUTION DESIGN BEING COORDINATED WITH ORWG AND SAWG INPUT, RR PLANNED FOR JULY POSTING
SIR234 RPA2.14		JAN 2023	IN PROGRESS; EVALUATING NEED TO ADD INCENTIVE MECHANISM TO SCOPE; ALSO CONTINUING WORK WITH STATE REGULATORS TO REFINE CURRENT SCOPE FOR IRATF REVIEW IN JULY 2022

STATE: COMPLETE

INITIATIVE	SCHEDULED FINISH	ACTUAL FINISH	COMMENTS
SIR206 FA1.1	08/01/2022	JAN 2022 IRATF	COMPLETED WITH 01/19/2022 PRESENTATION TO IRATF
SIR214 FA2.4	12/01/2021	DEC 2021 IRATF	COMPLETED WITH 12/15/2021 SPP EMAIL TO GENERATOR OPERATORS
SIR230 RPA2.10	12/01/2021	DEC 2021 IRATF	COMPLETED WITH 12/15/2021 SPP REPORT ON UTILITY SCALE RESOURCES

MILESTONES FOR EACH PHASE

PHASE	MILESTONE NUMBER	MILESTONE DESCRIPTION
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	1	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW
	2	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW
	3	RECOMMENDATIONS APPROVED
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	1	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW
	2	DESIGN CLEARED AND POSTED FOR REVIEW
	3	FINAL DESIGN APPROVED

PROJECT DECISIONS

This section is to escalate project items requiring a decision from executive management, the Improved Resource Availability Task Force (IRATF), Regional State Committee (RSC) or other relevant stakeholder groups.

DECISION NEEDED	DECISION MAKER
Approval to revise SIR382 RPA2.14 language and move forward to design development (pushed to July 2022)	IRATF
Approval of SAWG-approved policy paper on resource accreditation (SIR221/222 RPA2.1/2.2)	IRATF
Endorsement of force majeure language recommendations to NAESB	IRATF

PROJECT RISKS

The section is to heighten awareness of the top project risks identified within initiative development that could impact the scope or timeline.

RISK DESCRIPTION	PROPOSED MITIGATION
New weather event could put pressures on timelines	<ul style="list-style-type: none"> • MONITOR - Direct teams to progress as quickly as is reasonable to implement low- to moderate-complexity changes • Improve our preparation based on information collected after Feb 2021 event • Leverage emergency communication plan to support response in event of another event
New weather event could divert resources from Tier 1 work	<ul style="list-style-type: none"> • MONITOR - Direct teams to progress as quickly as is reasonable to implement low- to moderate-complexity changes • Improve our preparation based on information collected after Feb 2021 event • Leverage emergency communication plan to support response in event of another event
New weather event could cause scope to grow	<ul style="list-style-type: none"> • MONITOR - Direct teams to progress as quickly as is reasonable to implement low- to moderate-complexity changes • Improve our preparation based on information collected after Feb 2021 event • Leverage emergency communication plan to support response in event of another event

PROJECT ISSUES

The section is to heighten awareness of the top project issues identified within initiative development that could impact the scope or timeline.

ISSUE DESCRIPTION	PROPOSED MITIGATION
<p>The IRATF on 3/16/22 acknowledged SPP's plan to defer a subset of WWE Tier 1 sub-initiatives to other working groups for needed subject matter expertise to help with technical details supporting policy development. This deferral addressed a project risk entered as a result of IRATF concerns about the subject matter expertise available on the task force. The impact of this decision is additional stakeholder cycles may be required.</p>	<p>Delays will be escalated and communicated to the executive sponsor/business owner and IRATF by Scott Maple, Erin Cathey and Lee Elliott in order to minimize impacts.</p>

INITIATIVE STATUS UPDATE



SIR206 FUEL ASSURANCE 1.1

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Assess root causes and impacts of fuel supply issues, i.e., gas transportation, production, or cost and develop appropriate solutions.</p> <p>Scope: SPP staff to complete research/analysis and present viable solutions to IRATF for direction, will use gen survey results. Full access to data may not be available, will consider second generator survey to fill in gaps in information.</p>	<p>Charles Hendrix</p>	<p>Nov 2021- AUG 2022</p>

EXECUTIVE SUMMARY:

This initiative was completed ahead of schedule. SPP staff presented the findings of their analysis to assess root causes of fuel supply issues during the 2021 WWE at the 01/19/2022 IRATF meeting. SPP staff highlighted the primary cause of natural gas plant incidents as gas supply, noting that contract type did not influence gas availability and that energy loss was commensurate with accredited capacity. NERC standards address power plant equipment freezing, and NERC has begun taking steps to implement fuel assurance requirements. The group noted no opposition to closing this initiative and beginning work on FA1.3 and FA1.4. No design or implementation tasks needed.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	RECOMMENDATION DRAFTING PROGRESS	JUN 2022	DEC 2021	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	SPP STAFF RECOMMENDATION POSTED TO KICK-OFF STAKEHOLDER REVIEW AND FEEDBACK.	AUG 2022	JAN 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	AUG 2022	JAN 2022	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	NA	NA	NA

REVISION REQUEST NUMBER (IF APPLICABLE):

- N/A

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- N/A

SIR207 FUEL ASSURANCE 1.2

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Evaluate fuel supply limitations in the seasonal Loss of Load Expectation (LOLE) studies.</p> <p>Scope:</p> <p>SPP staff will determine which fuel supply study variables should be investigated, add those variables to the study, and then evaluate the impact of the fuel supply variables in the 2023 LOLE study as part of RPA2.7. The evaluation under this initiative will:</p> <ul style="list-style-type: none"> • Look at correlated variables, such as temperature and precipitation (i.e. drought and flooding), that drive outages related to the lack of fuel supply. • Examine the need of local fuel availability versus regional fuel availability across the BA. • Be used by SPP staff to develop recommendations to the SAWG based on the results of the evaluation. Final recommendations based on SAWG input will be presented to the IRATF. <p>The potential to add fuel supply limitations to the seasonal LOLE study will be a subset of work that aligns with larger LOLE study changes.</p> <p>When evaluations are complete, SPP staff will merge the findings and recommendations to one consolidated package.</p> <p>The work under this initiative includes evaluating impacts to common mode outages that impact multiple generators, and considers risks associated with unassured energy supplies, such as inconsistent output from renewable energy resources. SPP staff will seek to determine drivers that impact capacity but have not been considered in the past. Relevant data from the generator survey will be used.</p> <p>Related Initiatives:</p> <p>Working in conjunction with SIR226 RPA2.6, predecessor to SIR227 RPA2.7</p>	<p>Charles Hendrix</p>	<p>NOV 2021 – JAN 2023</p>

EXECUTIVE SUMMARY:

The IRATF in March 2022 delegated primary working group responsibility to the SAWG for three initiatives related to the 2023 loss of load expectations (LOLE) study: FA1.2, RPA2.6 and RPA2.7. These initiatives have similar objectives and scopes that would benefit from working in parallel and tracking together, culminating in the targeted February 2023 start of the 2023 LOLE study. SPP staff recommends revising timelines and scopes for these initiatives to capitalize on these inherent efficiencies.

FA1.2 and RPA2.7 details:

- June-October 2022: Model set development, with input from a vendor and a small group of SAWG representatives
- October/November 2022: SAWG approval of the model set
- November/December 2022: IRATF approval of the model set
- January 2023: MOPC approval of the model set
- February 2023: Begin 2023 LOLE study
- January 2024: MOPC, RSC and BOD approve 2023 LOLE study

Following a similar timeline, the outcome of RPA2.6 will combine with the outcome to FA1.2 and RPA2.7 to then guide the 2023 LOLE study that is expected to start in February 2023 and will then be approved by MOPC, RSC, and BOD in January 2024.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS ON MODEL DEVELOPMENT	JUN 2022		30%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	MODEL POSTED FOR STAKEHOLDER APPROVAL. SAWG OCT-NOV, IRATF NOV-DEC	OCT 2022		
	RECOMMENDATIONS APPROVED	MODEL APPROVED. SAWG OCT-NOV 2022, IRATF NOV-DEC 2022, MOPC, RSC, BOD JAN 2023	JAN 2023		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	RELATED DESIGN WILL OCCUR VIA RPA2.7	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	NA	NA	NA

REVISION REQUEST NUMBER (IF APPLICABLE):

- Not Applicable

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

The SAWG will lead the work on this initiative with SPP staff and vendor assistance. IRATF will provide an advisory role and will be updated as needed throughout the effort.

- April 2022 SAWG
- May-Dec 2022 IRATF updated as needed
- June-Dec 2022 SAWG

SIR208/209 FUEL ASSURANCE 1.3/1.4

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>FA1.3: Evaluate revising supply adequacy process to properly consider availability of resources during summer and winter seasons and any additional requirements for the fuel supply of accredited resources.</p> <p>FA1.4: Evaluate if resources can be considered firm if the primary fuel has an availability risk or if the at-risk fuel resource should have dual fuel capability.</p> <p>Scope: SPP staff will perform the evaluations as described in the objectives of FA1.3 and FA1.4 and provide a report that includes results of the following for SAWG, MWG, and IRATF approval:</p> <ul style="list-style-type: none"> FA1.3: SPP staff will determine what additional resource adequacy modifications may be needed as detailed in the FA1.3 objective. FA1.4: SPP staff will perform research to determine if resources can be considered firm when the primary fuel source has an availability risk or if the at-risk fuel resource should have dual fuel capability. <p>Outcome of FA1.1 will support decisions related to these combined initiatives.</p> <p>Related Initiatives:</p> <p>SIR208 FA1.3 and SIR209 FA1.4 will utilize outcome of SIR206 FA1.1, MMU initiatives SIR309, SIR310, SIR311, SIR312, SIR317, SIR318, SIR319, and SIR320</p>	<p>Charles Hendrix</p>	<p>JAN 2022- JUL 2023</p>

EXECUTIVE SUMMARY:

This initiative is ahead of schedule. SPP staff, SPP MMU, and stakeholders (IRATF, SAWG, and MWG) are working together to consider updating fuel supply requirements. The generator survey from

FA1.1 did not provide conclusive data at the appropriate level to guide updates to requirements. Nor has SPP staff received clear direction on requirements from discussions with the SAWG, MWG and gas industry stakeholders. SPP staff will update the IRATF in June 2022 on efforts to have a recommendation to them by July-August 2022. The recommendation will likely lead to a revision to the fuel requirements in Planning Criteria 7.

MMU initiatives [SIR309](#), [SIR310](#), [SIR311](#), [SIR312](#), [SIR317](#), [SIR318](#), [SIR319](#), and [SIR320](#) are expected to be covered under this initiative. The MMU will provide feedback as needed. MMU initiative detail is provided in the [“MMU Tier 1 WWE Initiatives”](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	EVALUATION AND RECOMMENDATION DRAFTING PROGRESS	AUG-SEP 2022		60%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	SPP STAFF RECOMMENDATION POSTED TO KICK OFF STAKEHOLDER REVIEW AND FEEDBACK. SAWG PRIMARY LEAD, WITH MWG AND IRATF AS SECONDARY LEADS	OCT 2022		
	RECOMMENDATIONS APPROVED	SAWG, MWG, IRATF	NOV 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	DEC 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START (SAWG, CAWG, RTWG)	JUL 2023		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	JUL 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- SAWG initial discussion 02/22/2022
- MWG initial discussion 03/15/2022
- CAWG TBD
- RTWG TBD

SIR212 FUEL ASSURANCE 2.2

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Where cost was a root cause of gas supply issues, assess how SPP should advocate for an emergency gas cap for high prices when buying gas in emergency or EEA level events is appropriate.</p> <p>Scope: Develop a whitepaper for the IRATF that summarizes the research and analysis.</p> <p>Related Initiatives: SIR213, FA2.3 and the FERC, NERC report.</p>	<p>Barbara Stroope</p>	<p>AUG 2022- OCT 2022</p>

EXECUTIVE SUMMARY:

This initiative is ahead of schedule. The IRATF delegated primary working group responsibility to the MWG during the March IRATF meeting. SPP staff is developing a position paper to review with the MWG in July 2022 before coming to the IRATF for approval of recommendations in October 2022.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS DEVELOPING THE POSITION PAPER	MAY 2022		75%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSITION PAPER POSTED TO KICK OFF STAKEHOLDER FEEDBACK. MWG, ORWG, SAWG, & IRATF	JUL 2022		
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	OCT 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	NA	NA	NA

REVISION REQUEST NUMBER (IF APPLICABLE):

- TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- July MWG initial discussion (tentative)

- ? ORWG
- ? SAWG

SIR213 FUEL ASSURANCE 2.3

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Discuss potential role of the RTO in gas-electric coordination.</p> <ul style="list-style-type: none"> • The RTO should take an active role on behalf of the entire market to advocate for change in the gas industry. • The IRATF will discuss and consider supporting the NAESB standard revision submittal of force majeure provisions in gas contracts. <p>SPP will facilitate and provide analysis to support this initiative as directed by the IRATF.</p> <p>Scope:</p> <p>The IRATF, with SPP staff support, will discuss to determine the appropriate approach to this initiative.</p> <p>Related Initiatives:</p> <p>SIR212 FA2.2, FERC/NERC report, MMU initiatives SIR332 and SIR333</p>	<p>IRATF, with support from SPP staff</p>	<p>NOV 2021- JUL 2022</p>

EXECUTIVE SUMMARY:

The IRATF in March 2022 delegated primary working group responsibility to the SAWG and MWG. SPP staff have been working with stakeholders on *force majeure* language for gas contracts to present to the IRATF at its June 2022 meeting. At the July IRATF meeting, SPP staff will request final direction on options needed to close out the remainder of this initiative related to the RTO’s advocacy for change in the gas industry.

MMU initiatives [SIR332](#) and [SIR333](#) are expected to be covered under this initiative. The MMU is following the work of the IRATF and will provide feedback as needed. MMU initiatives are provided in the [“MMU Tier 1 WWE Initiatives”](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS INTERNAL DEVELOPMENT OF OPTIONS FOR EXTERNAL REVIEW	MAR 2022	JAN 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	OPTIONS POSTED FOR IRATF REVIEW AND APPROVAL PROCESS	MAY 2022	MAY 2022	100%
	RECOMMENDATIONS APPROVED	APPROVAL BY FINAL APPROVER; MOPC RSC, BOD	JUL 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	NA	NA	NA

REVISION REQUEST NUMBER (IF APPLICABLE):

- Not Applicable

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- TBD



SIR214 FUEL ASSURANCE 2.4

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Inform gas pipeline operators they are susceptible to power outages caused by other events not controlled by the TOPs & encouraged to be prepared for such losses of service.</p> <p>Scope:</p> <p>Provide presentations to the IRATF and ORWG. Send recommendation letter to gas pipeline operators.</p>	<p>Charles Hendrix</p>	<p>NOV 2021- DEC 2021</p>

EXECUTIVE SUMMARY:

The IRATF delegated primary working group responsibility to the SAWG and MWG during the March IRATF meeting. SPP staff distributed a memo to the SPP region’s natural gas pipeline operators on 12/15/2021. The memo reminded natural gas pipeline operators that they are susceptible to power outages by events not controlled by SPP, such as weather-related events and local transmission issues.

SPP encouraged the natural gas pipeline operators in the SPP region to:

- Work with their local transmission operators to identify their load as critical and ensure then that if their load is identified as critical, during controlled load shed events their local transmission operator can work to exclude those loads when possible.
- Ensure all backup generation is tested and functioning and that they should also have a fuel plan in place in case the power outage is lengthy.
- Sign up for the SPP [Grid Notices](#) email list, noting that these notices will help them stay apprised of changing grid conditions that affect the SPP footprint and that they define current grid conditions and indicate their relative level of severity.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT PROGRESS	DEC 2021	DEC 2021	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW	DEC 2021	DEC 2021	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	DEC 2021	DEC 2021	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	NA	NA	NA

REVISION REQUEST NUMBER (IF APPLICABLE):

- Not Applicable

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- Not Applicable

SIR219 RESOURCE PLANNING & AVAILABILITY 1

SCOPE	BUSINESS OWNER	TIMELINE
<p>Perform initial and ongoing assessments of minimum reliability attributes needed from SPP’s resource mix.</p> <p>Objective:</p> <ul style="list-style-type: none"> • To quantify the minimum reliability attributes needed from SPP’s resource mix to reliably operate the SPP BA now and in the future. • To develop a framework for the periodic assessment of the ability of the SPP BA fleet of resources to adequately provide these attributes. • To identify the required changes to incentives, policies and requirements necessary to secure these attributes. <p>Reliability Attributes Considered:</p> <ol style="list-style-type: none"> 1. Primary Frequency Response (PFR) 2. Inertia 3. Ramping (Short-Term) (5-15 min?) 4. Ramping (Long-Term Consecutive Hours, Uncertainty) <ul style="list-style-type: none"> ○ Ramp-up and ramp-down considered as separate attributes 5. Regulation 6. Contingency Reserves (CR) 7. Voltage and VAR support capability 8. Fuel Assurance for: <ul style="list-style-type: none"> ○ On-site Fuel Inventory ○ Ability to run at least 72 hours at economic maximum output 9. Flexibility for: <ul style="list-style-type: none"> ○ Cycling capabilities ○ Lead time to start up (start-up notification time) ○ Minimum run time 10. Black start capability 11. Dispatchability 12. Observability and Controllability <p>Scope:</p> <p>Organized in seven focus areas that will interplay to complete the overall objective for SIR219:</p>	<p>Bert Bressers/ Casey Cathey</p>	<p>NOV 2021- APR 2023</p>

<ul style="list-style-type: none"> • SIR219.1 RPA1.1: Reliability Attributes Needs Assessment (Current Day) - Quantify how much of the 10 reliability attributes we need today. Define conditions such as duration of providing attribute. (Nov. 2021-May 2022) • SIR219.2 RPA1.2: Reliability Attributes Needs Assessment (Future) - Quantify how much of the 10 reliability attributes we need in future as SPP BA resource mix and SPP BA load profiles change. (Nov. 2021-May 2022) • SIR219.3 RPA1.3: Resource Capability Assessment - Determine the capability of all SPP BA resources to provide the 10 reliability attributes. Determine the capability of future resource types. (Dec. 2021-May 2022) • SIR219.4 RPA1.4: Scenario Development - Develop realistic scenarios for future years (3-5-10 years out) that specify/forecast the available resource type mix of the SPP BA fleet in those future horizons and specify what SPP BA load profiles could look like. (Dec. 2021-Sep. 2022) • SIR219.5 RPA1.5: Reliability Assessment of Future Scenarios - Assess for all identified future scenarios if we will have enough of each required attribute to reliably operate the SPP BA. (Dec. 2021-Feb. 2023) • SIR219.6 RPA1.6: Develop Process to Perform Recurring Assessments - Develop a framework for performing an annual or biennial assessment of adequacy of the reliability attributes of the SPP BA fleet for the near future. (Jun. 2022-Feb. 2023) • SIR219.7 RPA1.7: To identify the required changes to incentives, policies and requirements necessary to secure these attributes. Develop policies and recommendations for incorporation of minimum reliability attribute requirements and, where appropriate, incorporate market-based incentives. (Feb. 2022 – Apr. 2023) 		
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EXECUTIVE SUMMARY:

- **SIR219.1-SIR219.3 (RPA1.2-RPA1.3)** – SPP staff presented a report with results from their analysis during the May IRATF meeting. Teams are evaluating next steps based on stakeholder feedback. SPP recommends waiting to close these three initiatives until RPA1.4 is complete in September 2022.
- **SIR219.4-SIR219.5 (RPA1.4-RPA1.5)** – SPP staff are wrapping up identification of future scenarios that need to be assessed. They are considering the best approach to evaluate the scenarios for adequacy of attribute quantities of the anticipated future resource mix scenarios.

- **SIR219.6 RPA1.6** (approach for yearly assessment) is pending evaluation of how efficient and effective the approach is from the RPA 1.5 effort. If useful for ongoing yearly assessment, it will be documented.
- **SIR219.7 RPA1.7** (policies) has not started pending results of foregoing efforts.

MMU initiative [SIR310](#) is expected to be covered under this initiative as well as others covered by the IRATF. The MMU is following the work of the IRATF and will provide feedback as needed. MMU initiatives are provided in the [“MMU Tier 1 WWE Initiatives”](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS DRAFTING RECOMMENDATION FOR EXTERNAL REVIEW	MAY 2022 (RPA1.1-1.3)	APR 2022	100%
			SEP 2022 (RPA1.4)		25%
			FEB 2023 (RPA1.5)		
			FEB 2023 (RPA1.6)		
			APR 2023 (RPA1.7)		
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	RECOMMENDATIONS POSTED FOR IRATF REVIEW	MAY 2022 (RPA1.1-1.3)	MAY 2022	100%
			SEP 2022 (RPA1.4)		
			FEB 2023 (RPA1.5)		
			FEB 2023 (RPA1.6)		

			APR 2023 (RPA1.7)		
	RECOMMENDATIONS APPROVED	IRATF APPROVAL OBTAINED	SEP 2022 (RPA1.1-1.4)		75%
			FEB 2023 (RPA1.5)		
			FEB 2023 (RPA1.6)		
			APR 2023 (RPA1.7)		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	TBD		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	TBD		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	APR 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW**/**APPROVAL****

- TBD

SIR221 RESOURCE PLANNING & AVAILABILITY 2.1 & 2.2

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Identify the appropriate accreditation of all resources.</p> <p>Scope: RPA2.1. GTTF to complete its Accreditation Recommendation Policy Paper for conventional resources by December 2021 and present to SAWG for approval. From the SAWG, SPP staff will take the Policy Paper to the IRATF for final review and approval in June 2022, then to MOPC/RSC and Board in July 2022. An RR will be presented to MOPC/RSC and Board in October 2022.</p> <p>RPA2.2. Expand accreditation efforts that are currently underway to evaluate performance-based accreditation for conventional resources.</p> <p>Related initiatives: MMU initiatives SIR309, SIR310, SIR311, SIR312, SIR317, SIR318, SIR319, and SIR320</p>	<p>Charles Hendrix</p>	<p>NOV 2021- OCT 2022</p>

EXECUTIVE SUMMARY:

The IRATF approved combining initiatives RPA2.1 and RPA2.2. SPP staff will seek approval of the SAWG-approved policy paper during the June 2022 IRATF meeting. AEP staff will present an alternate proposal for consideration. Based on the outcome of the IRATF’s June discussion, a completed design, including an RR, will be presented to the IRATF in July, ahead of the October MOPC.

MMU initiatives [SIR309](#), [SIR310](#), [SIR311](#), [SIR312](#), [SIR317](#), [SIR318](#), [SIR319](#), and [SIR320](#) are expected to be covered under this initiative. The MMU will provide feedback as needed. MMU initiatives are provided in the [“MMU Tier 1 WWE Initiatives”](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS FINALIZING RECOMMENDATION FOR EXTERNAL REVIEW	JAN 2022	MAR 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	RECOMMENDATIONS POSTED FOR IRATF REVIEW	FEB 2022	MAR 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	FEB 2022	MAR 2022	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL POLICY AND RR DEVELOPMENT & SIGN-OFF PROCESS	JUN 2022		50%
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR POLICY PAPER REVIEW & STAKEHOLDER RR PROCESS TO START. SAWG PRIMARY.	JUN 2022		50%
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	OCT 2022		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### Title TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- SAWG May-June 2022
- IRATF July 2022
- MOPC October 2022 (RR)

SIR223 RESOURCE PLANNING & AVAILABILITY 2.3

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Annual evaluation on the availability of resources.</p> <p>Scope: Perform an annual evaluation of the availability of all BA accredited resources, including BTM generation, to determine if additional requirement reviews are needed. Obtain a list of accredited resources in the balancing authority. Obtain operational and outage (e.g., GADS and CROW or other acceptable format) data covering all BA accredited resources that details how they performed in real time.</p> <p>Related initiatives: Results will be an input to SIR223 RPA2.4</p>	<p>Charles Hendrix</p>	<p>NOV 2021-JAN 2023</p>

EXECUTIVE SUMMARY:

SPP staff presented data to the IRATF in April 2022, which illustrated the causes of resource unavailability, and how that data may support the design and implementation of incentives to ensure accredited capacity availability as directed by RPA2.4. SPP staff discussed with the IRATF how the data/metrics may be leveraged to create an annual performance report. Working groups will review the data and what will be illustrated in the external report going forward. As part of this discussion, the Market Monitoring Unit will introduce potential incentives for adequate participation and potentially disincentives for not being available. This work could result in a need for a revision request; if so, we will need to work beyond December 2022 to complete the RR process. The annual evaluation resulting from this initiative will be an input to RPA2.4.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS DRAFTING RECOMMENDATION FOR EXTERNAL REVIEW	JAN 2022	MAR 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW OF RECOMMENDATION. SAWG, CAWG, MWG, ORWG	APR-JUL 2022	APR 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	AUG 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	SEP 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	OCT 2022		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	JAN 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- ~~March 2022 Joint SAWG and ORWG~~
- ~~April 2022 IRATF (Discuss external report content)~~
- June 2022 CAWG (Discuss external report content)
- June 2022 ORWG (Discuss external report content)
- June 2022 SAWG (Discuss external report content)
- July 2022 MWG (Discuss external report content)

- If needed, July 2022 CAWG (Discuss external report content)
- August 2022 IRATF (Approve external report content)

SIR224 RESOURCE PLANNING & AVAILABILITY 2.4

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Ensure there is a strong correlation between the capacity accreditation that a market registered resource receives & the amount of capacity the resource offers into the market.</p> <p>Scope:</p> <p>SPP staff will perform research/analysis to develop a mechanism to increase control on capacity provided. Will need to ensure what we see in Resource Adequacy actually makes it to Real-Time. SPP staff will utilize existing data and developed graphs to illustrate the issue, create a report to educate the IRATF, and quantify the issue.</p> <p>Propose recommendations to incent maximum capacity available to the market.</p> <p>Additionally, align accredited capacity with what is reliably available to the BA.</p> <p>Related Initiatives:</p> <p>MMU initiatives SIR309, SIR310, SIR311, SIR312, SIR317, SIR318, SIR319, and SIR320</p>	<p>Charles Hendrix</p>	<p>APR 2022 – JAN 2023</p>

EXECUTIVE SUMMARY:

SPP staff elicited feedback from SAWG and MWG and presented an update to the IRATF in April 2022 as noted above in RPA2.3. SPP staff and SPP MMU will continue discussions with relevant working groups in conjunction with RPA2.3 to make a recommendation for this initiative. The annual evaluation resulting from RPA2.3 will be used to assist in developing potential incentives for adequate participation and potentially disincentives for not being available. This work could result in a need for a revision request; if so, we may need to work beyond December 2022 to complete the RR process.

Southwest Power Pool, Inc.

MMU initiatives [SIR309](#), [SIR310](#), [SIR311](#), [SIR312](#), [SIR317](#), [SIR318](#), [SIR319](#), and [SIR320](#) are expected to be covered under this initiative. The MMU will provide feedback as needed. MMU initiatives are provided in the ["MMU Tier 1 WWE Initiatives"](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT PROGRESS	JUN 2022		30%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW	JUN 2022		
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	AUG 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT & SIGN-OFF PROCESS	SEP 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	OCT 2022		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	JAN 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- SAWG initial discussion 02/22/2022
- MWG initial discussion 03/15/2022
- June 2022 CAWG
- June 2022 ORWG

- June 2022 SAWG
- July 2022 MWG
- If needed, July 2022 CAWG
- August 2022 IRATF

SIR226 RESOURCE PLANNING & AVAILABILITY 2.6

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Perform seasonal summer & winter LOLE studies.</p> <p>Scope: Perform LOLE Study that includes differences below. The intent is to accomplish as part of the 2023 LOLE scope and study.</p> <p>Model items below on a seasonal basis</p> <ul style="list-style-type: none"> • Zonal transfer limits • Conventional generator ratings • Outage parameters • Economic and Physical resource parameters • External capacity transactions • Demand Response Programs • 1 day in 10 threshold applied to each season <p>Include additional parameters and assumptions from RPA 2.7</p> <p>Apply appropriate seasonal PRM requirements that are enforceable.</p> <p>Evaluate the appropriate applicability of a 1-in-10 loss of load expectation on an annual basis or on a seasonal basis, individually.</p> <p>Related initiatives: To be worked concurrently with FA1.2 and is a predecessor to SIR227 RPA2.7</p>	<p>Charles Hendrix</p>	<p>NOV 2021-JAN 2023</p>

EXECUTIVE SUMMARY:

The IRATF in March 2022 delegated primary working group responsibility to the SAWG for three

initiatives related to the 2023 loss of load expectations (LOLE) study: FA1.2, RPA2.6 and RPA2.7. These initiatives have similar objectives and scopes that would benefit from working in parallel and tracking together, culminating in the targeted February 2023 start of the 2023 LOLE study. SPP staff recommends revising timelines and scopes for these initiatives to capitalize on these inherent efficiencies.

RPA2.6 details:

- June-October 2022: Work will focus on the 2023 LOLE to determine the appropriate PRM based on SAWG approved winter season assumptions.
- October/November 2022: SAWG approval
- November/December 2022: IRATF approval
- January 2023: MOPC approval
- January 2024: MOPC, RSC and BOD approve 2023 LOLE study

SPP staff will work to take a revision request to the SAWG that will propose to include a winter season resource adequacy requirement consistent with/similar to summer season. SPP staff will target completion of the RR at MOPC in January 2023. The 1-in-10 loss of load expectation discussion is expected to occur in conjunction with the development of this revision request.

Following a similar timeline, the outcome of FA1.2 and RPA2.7 will combine with the outcome to RPA2.6 to then guide the 2023 LOLE study that is expected to start in February 2023 and be approved by MOPC, RSC, and BOD in January 2024.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS ON PRM AND WINTER SEASON ASSUMPTION RECOMMENDATION AND RR DEVELOPMENT	JUN 2022		30%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	PRM AND WINTER SEASON ASSUMPTION RECOMMENDATION AND RR POSTED FOR STAKEHOLDER REVIEW APPROVAL. SAWG/IRATF	OCT-NOV 2022		
	RECOMMENDATIONS APPROVED	PRM AND WINTER SEASON ASSUMPTION RECOMMENDATION AND RR APPROVED. SAWG/IRATF	NOV-DEC 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS	OCT 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	OCT 2022		
	FINAL DESIGN APPROVED	PRM AND WINTER SEASON ASSUMPTION RECOMMENDATION AND RR APPROVAL. MOPC, RSC, BOD	JAN 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### Title TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- RR will likely need to route through SAWG, CAWG, RTWG, IRATF, MOPC, BOD, RSC

SIR227 RESOURCE PLANNING & AVAILABILITY 2.7

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>In the performance of the 2023 LOLE study for RPA2.6, include the following drivers as applicable</p> <ul style="list-style-type: none"> • Derive a level of planned outages from historical analysis that occur during summer and winter seasons. Apply as needed to the calculation of PRM or the LOLE Study for RPA 2.6. • Analyze outage trends driven by temperature. Apply as needed to the calculation of PRM or the LOLE Study for RPA 2.6. • Analyze outage trends driven by common mode outage failures. Apply as needed to the calculation of PRM or the LOLE study for RPA 2.6. <p>Scope:</p> <ol style="list-style-type: none"> 1. Evaluate how planned and unplanned outages should be studied in the LOLE study for RPA 2.6 with an understanding that a certain level of planned outages may be allowed from a seasonal perspective. 2. Evaluate if temperature parameters that impact forced outage rates should be included in the LOLE study for RPA 2.6; determine how to analyze common mode outages that should be studied for resource adequacy, including the probability of such outages. Common mode examples could include: <ul style="list-style-type: none"> • Simultaneous gas transportation limitations. • Simultaneous gas line pumping station failures. 	<p>Charles Hendrix</p>	<p>JAN 2023-JAN 2024</p>

<ul style="list-style-type: none"> • Simultaneous loss of capacity due to temperature extremes, flooding and drought conditions. • Simultaneous loss of facilities due to transmission outages. • Simultaneous loss of output from renewable facilities (e.g. 'icing' conditions) <p>3. Model extreme weather event correlations LOLE study for RPA 2.6 to capture common mode outages and outage thresholds driven by extreme temperature.</p> <p>Related initiatives: SIR207 FA1.2 and SIR226 RPA2.6 are predecessors to this initiative</p>		
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EXECUTIVE SUMMARY:

The IRATF in March 2022 delegated primary working group responsibility to the SAWG for three initiatives related to the 2023 loss of load expectations (LOLE) study: FA1.2, RPA2.6 and RPA2.7. These initiatives have similar objectives and scopes that would benefit from working in parallel and tracking together, culminating in the targeted February 2023 start of the 2023 LOLE study. SPP staff recommends revising timelines and scopes for these initiatives to capitalize on these inherent efficiencies.

FA1.2 and RPA2.7 details:

- June-October 2022: Model set development, with input from a vendor and a small group of SAWG representatives
- October/November 2022: SAWG approval of the model set
- November/December 2022: IRATF approval of the model set
- January 2023: MOPC approval of model set
- February 2023: Begin 2023 LOLE study
- January 2024: MOPC, RSC and BOD approve 2023 LOLE study

Following a similar timeline, the outcome of RPA2.6 will combine with the outcome to FA1.2 and RPA2.7 to then guide the 2023 LOLE study that is expected to start in February 2023.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS ON MODEL DEVELOPMENT	JUN 2022		
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	MODEL POSTED FOR STAKEHOLDER APPROVAL. SAWG OCT-NOV, IRATF NOV-DEC	OCT 2022		
	RECOMMENDATIONS APPROVED	MODEL APPROVED. SAWG OCT-NOV 2022, IRATF NOV-DEC 2022, MOPC, RSC, BOD JAN 2023	JAN 2023		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	PERFORM STUDY	FEB 2023		
	DESIGN CLEARED AND POSTED FOR REVIEW	STUDY COMPLETE AND POSTED FOR REVIEW	OCT 2023		
	FINAL DESIGN APPROVED	STUDY APPROVED. SAWG/IRATF (OCT-DEC 2023); MOPC, BOD, RSC APPROVE IN JANUARY 2024	JAN 2024		

REVISION REQUEST NUMBER (IF APPLICABLE):

- Not Applicable

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- TBD

SIR228 RESOURCE PLANNING & AVAILABILITY 2.8

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: SPP should evaluate the need for implementation of winterization requirements for the generation fleet.</p> <p>Scope: This effort is partially complete via requirements prescribed in NERC EOP, TPL, COMM winterization standards. These standards will provide baseline requirements for this initiative.</p> <p>Generator survey sent to SPP members will provide additional data/insight on winterization. SPP staff will review the NERC standards and generator survey results and will determine if there are any remaining gaps. Remaining gaps will be addressed. SPP staff will discuss the results and develop a recommendation with the ORWG. The recommendation coming from SPP staff and the ORWG will be presented to the IRATF for approval/direction.</p> <p>Initiative should review for any gaps in the NERC initiatives and generator surveys to address potential requirements for renewable facilities (e.g. 'icing' for wind generators, ESR performance at low temperatures, snow on solar panels).</p>	<p>Charles Hendrix</p>	<p>NOV 2021-JAN 2024</p>

EXECUTIVE SUMMARY:

The IRATF in February 2022 provided final approval of SPP staff’s recommendations. SPP staff are working with the SAWG to develop the design. This initiative will be addressed in two phases:

- 1) June 2022 communication to generator owners requesting information on winterization plans by end of August 2022
- 2) Review GO plan common practices and NERC winterization standards with SAWG, between June

Southwest Power Pool, Inc.

2022 and September 2023, to inform development of a recommendation for winterization best practices in the SPP balancing authority.

SPP staff will provide a SAWG approved recommendation to the IRATF in October 2023 and will review with MOPC in January 2024.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS DRAFTING RECOMMENDATION FOR EXTERNAL REVIEW	FEB 2022	DEC 2021	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	RECOMMENDATIONS POSTED FOR STAKEHOLDER REVIEWS/APPROVALS OF RECOMMENDATION	FEB 2022	DEC 2021	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	FEB 2022	FEB 2022	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	PLAN TO COMMUNICATE WITH GEN OWNERS READY FOR DISTRIBUTION	JUN 2022	JUN 2022	100%
	DESIGN CLEARED AND POSTED FOR REVIEW	COMMUNICATION SENT TO GEN OWNERS, POSTING/START DATE FOR STAKEHOLDER PROCESS TO DEFINE BEST PRACTICES IN WINTERIZATION PLANNING. SAWG & IRATF APPROVE	JUN 2022	JUN 2022	100%
	FINAL DESIGN APPROVED	MOPC, BOD, RSC APPROVE BEST PRACTICES	JAN 2024		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- June 2022-Dec 2023 SAWG
- Oct-Dec 2023 IRATF
- Jan 2024 MOPC, RSC, BOD

SIR229 RESOURCE PLANNING & AVAILABILITY 2.9

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Evaluate revising SPP resource adequacy processes to ensure there is adequate generation to withstand extreme weather events and seasonal demands. The transmission planning process should ensure that the forecasting of all generation is adequate along with appropriate transmission, including seams projects.</p> <p>Scope: SPP staff will determine the appropriate inputs into an extreme weather scenario and recommend a scope of assumptions for the IRATF to evaluate.</p> <p>This objective can be met by performing an additional winter season sensitivity to the 2021 LOLE study that looks at an extreme seasonal event based off characteristics seen in the February 2021 winter weather event.</p> <p>Some of the considerations in the study should look at using a 90/10 load forecast rather than 50/50 forecast and also analyze wind by assuming only a certain amount of wind is available. Some other considerations from week of February 2021 winter event could be used as baseline inputs, such as fuel availability assumptions along with temperature impacts on the availability of generation.</p> <p>Once the 2021 LOLE study sensitivity is complete, the results of the study would be presented to the IRATF.</p> <p>Dependency: This sensitivity cannot be performed until the 2021 LOLE study scope</p>	<p>Charles Hendrix</p>	<p>MAR 2022-JUL 2022</p>

has been completed. Related Initiatives: MMU initiatives SIR309 , SIR310 , SIR311 , SIR312 , SIR317 , SIR318 , SIR319 , and SIR320		
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EXECUTIVE SUMMARY:

The IRATF on 03/16/2022 approved the LOLE study sensitivity so SPP staff could move forward with study plans. SPP staff plan to present results from the sensitivity analysis during the June 2022 IRATF meeting.

MMU initiatives [SIR309](#), [SIR310](#), [SIR311](#), [SIR312](#), [SIR317](#), [SIR318](#), [SIR319](#), and [SIR320](#) are expected to be covered under this initiative. The MMU will provide feedback as needed. MMU initiatives are provided in the [“MMU Tier 1 WWE Initiatives”](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT PROGRESS	FEB 2022	FEB 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	RECOMMENDATION POSTED FOR STAKEHOLDER REVIEW	MAR 2022	MAR 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL TO RUN SENSITIVITY ON THIS YEAR'S LOLE STUDY	MAR 2022	MAR 2022	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT & SIGN-OFF PROCESS - SENSITIVITY ADDED TO LOLE	MAR 2022	MAR 2022	100%
	DESIGN CLEARED AND POSTED FOR REVIEW	LOLE STUDY PERFORMED WITH SENSITIVITY INCLUDED, STUDY RESULTS POSTED FOR IRATF REVIEW	JUN 2022	JUNE 2022	100%
	FINAL DESIGN APPROVED	IRATF APPROVAL	JUL 2022		

REVISION REQUEST NUMBER (IF APPLICABLE):

- TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- June 2022 IRATF

**SIR230 RESOURCE PLANNING
& AVAILABILITY 2.10**



SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Create a complete listing of resources qualified through Attachment AA within the SPP BA showing utility scale resources not participating in the market that may be used in energy emergencies</p> <p>Scope: Present report detailing completed work to the IRATF.</p>	<p>Charles Hendrix</p>	<p>MAR 2022- JUN 2022</p>

EXECUTIVE SUMMARY:

This initiative completed ahead of schedule. The IRATF approved scope changes and closure of this initiative during the 12/15/2021 IRATF meeting. SPP staff presented a list of resources qualified through Attachment AA.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT PROGRESS	DEC 2021	DEC 2021	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	RECOMMENDATION POSTED FOR STAKEHOLDER REVIEW	DEC 2021	DEC 2021	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	DEC 2021	DEC 2021	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT & SIGN-OFF PROCESS	NA	NA	NA
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	NA	NA	NA
	FINAL DESIGN APPROVED	MOPC, RSC, BOD APPROVAL	NA	NA	NA

SIR232 RESOURCE PLANNING & AVAILABILITY 2.12

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective SIR232 RPA2.12:</p> <p>Evaluate demand response (DR) and behind the meter (BTM) processes and procedures implemented in 2020 for potential improvement and further recommend that all demand response used for resource adequacy should be available to SPP at EEA level 2.</p> <p>Scope:</p> <p>SPP staff will evaluate the current processes and procedures pertaining to DR and BTM generation, determine their current effectiveness, and identify any needed improvements. SPP staff should consider the confidence SPP operators have as to where DR and BTM generation are located and to what magnitude they may be reliably be called upon to provide relief. SPP staff should also review the communication process whereby DR and BTM generation are called upon to perform, and ensure it is adequate.</p> <p>SPP staff will include a statement in their resource adequacy Business Practice guidelines indicating when all accredited DR and BTM should be available to SPP BA as needed to mitigate and/or prevent energy and transmission emergencies.</p> <p>Objective SIR231 RPA2.11:</p> <p>Evaluate whether any existing BTM & unregistered generation can or should be activated in lieu of firm load curtailment.</p> <p>Scope:</p> <p>If RPA2.12 is addressed, RPA2.11 should be covered and no additional work would be needed.</p> <p>Using list of resources from RPA2.10, and in conjunction with completion of RPA2.12 and RPA2.13, perform, if needed, an evaluation and present recommendations to the IRATF.</p> <p>Related Initiatives:</p> <p>MMU initiative SIR316</p>	<p>Charles Hendrix</p>	<p>DEC 2021- JAN 2023</p>

EXECUTIVE SUMMARY:

The IRATF on 03/16/2022 accepted SPP staff's recommendation to delegate this initiative to the SAWG and revisit with the IRATF as needed.

MMU initiative [SIR316](#) is expected to be covered under this initiative. The MMU is will provide feedback as needed. MMU initiatives are provided in the ["MMU Tier 1 WWE Initiatives"](#) section.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS INTERNAL DEVELOPMENT OF OPTIONS FOR EXTERNAL REVIEW	MAR 2022		30%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW AND APPROVAL PROCESS. ORWG LEAD (BTM), MWG/SAWG LEAD (DR)	JUL 2022		
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	AUG 2022		
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT & SIGN-OFF PROCESS	JUL 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	AUG 2022		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD APPROVAL	JAN 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- ORWG?
- SAWG – Date TBD
- MWG – Date TBD

SIR233 RESOURCE PLANNING & AVAILABILITY 2.13

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Evaluate whether the current 10 MW requirement for market registration of behind the meter (BTM) generation is sufficient or if this should be lowered to ensure SPP has the visibility it needs to ensure capacity needed can be called upon.</p> <p>Scope:</p> <p>Utilizing the list of resources developed from the RPA2.10 efforts, SPP Staff will evaluate the effectiveness of the current 10 MW requirement for market registration and identify any hindrances to reliability based on SPP operations staff having limited knowledge of the location and size of BTM generation and no dispatch abilities. SPP Staff will analyze the benefits of lowering the 10 MW threshold and make a recommendation on what the new MW threshold may be. SPP staff will also consider any downfalls to lowering the threshold requirement such as increased SPP staff workload for the modeling and maintenance of additional resources and increased performance time for market solutions due to additional resources. There may also be undue barriers for resource owning entities to register as new Market Participants with SPP that should be considered.</p> <p>SPP Staff will make a recommendation to the IRATF on whether the current 10 MW threshold is sufficient, or if it should be lowered and to what new threshold. SPP staff should also include in their recommendation an outline of the process to change the threshold (e.g., coordination with MWG, public outreach, Revision Request process).</p>	<p>Charles Hendrix</p>	<p>DEC 2021- OCT 2022</p>

<p>SPP Staff should alternatively consider retaining the current 10 MW threshold and adding an addition to the registration requirements that requires all generation accounted for in the SPP accreditation process to be registered in the SPP Market regardless of size. This will require coordination with SAWG.</p> <p>Related initiatives:</p> <p>Utilization of the list of resources from SIR230 RPA2.10.</p>		
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EXECUTIVE SUMMARY:

The IRATF approved the light BA notification process recommendation from SPP staff during the April IRATF meeting. SPP staff will draft an RR and post for stakeholder review in July 2022.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS INTERNAL RECOMMENDATION DEVELOPMENT FOR EXTERNAL REVIEW	MAR 2022	JAN 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW AND APPROVAL PROCESS.	JAN 2022	JAN 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	FEB 2022	FEB 2022	100%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL DEVELOPMENT & SIGN-OFF PROCESS	JUN 2022		
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START	JUL 2022		
	FINAL DESIGN APPROVED	MOPC, RSC, BOD APPROVAL	OCT 2022		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- TBD SAWG
- TBD CAWG

- TBD RTWG

SIR382 RESOURCE PLANNING & AVAILABILITY 2.14

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Generation retirement evaluation; planned retirements and process review</p> <p>Scope: Evaluate generator retirements scheduled to occur in the next 6-12 months and communicate findings and any associated risk.</p> <p>While performing the evaluation of planned retirements, SPP staff will evaluate the generation retirement process to determine if there is a need to enhance SPP’s approval authority and to determine if additional analysis requirements, beyond transmission needs for the generation retirement process, should be recommended.</p> <p>Related Initiatives: RPA2.1</p>	<p>Charles Hendrix</p>	<p>DEC 2021- JAN 2023</p>

EXECUTIVE SUMMARY:

SPP staff presented its evaluation of planned retirements and recommendations for improvements to the generation retirement process at the 03/16/2022 IRATF meeting. The IRATF deferred action pending development of a motion to ensure adequate recognition of states’ rights related to generator retirements. SPP staff and the IRATF are continuing to fine-tune the recommendation and determine next steps. An update will be provided to the IRATF in July 2022.

MILESTONE PROGRESS:

PHASE	MILESTONE DESCRIPTION	DETAILS	PLANNED FINISH	ACTUAL FINISH	%
PHASE 1: RESEARCH & ANALYSIS, & RECOMMENDATION APPROVAL	RECOMMENDATIONS DOCUMENTED AND READY FOR INTERNAL REVIEW	PROGRESS TOWARDS INTERNAL DEVELOPMENT OF RECOMMENDATION FOR EXTERNAL REVIEW	MAR 2022	MAR 2022	100%
	RECOMMENDATIONS CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER REVIEW AND APPROVAL PROCESS.	MAR 2022	MAR 2022	100%
	RECOMMENDATIONS APPROVED	IRATF APPROVAL	AUG 2022		0%
PHASE 2: DESIGN DEVELOPMENT & APPROVAL	DESIGN DOCUMENTED AND READY FOR INTERNAL REVIEW	INTERNAL RR DEVELOPMENT & SIGN-OFF PROCESS			
	DESIGN CLEARED AND POSTED FOR REVIEW	POSTED FOR STAKEHOLDER RR PROCESS TO START			
	FINAL DESIGN APPROVED	MOPC, RSC, BOD RR APPROVAL	JAN 2023		

REVISION REQUEST NUMBER (IF APPLICABLE):

- RR### TBD

WORKING GROUP(S) PATH TO APPROVAL: WORK/REVIEW/APPROVAL

- TBD

SPP MMU TIER 1 INITIATIVES

SIR309 MMU R1

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: If SPP is to rely on any resource to be available to provide energy, then that resource should be available. This will require accounting for more granular approaches to measuring capacity including seasonality and forced outage rates. Availability may require resources to have secondary or backup fuel sources, or alternatively storage capabilities.</p> <p>Scope:</p> <p>Related Initiatives: Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

EXECUTIVE SUMMARY:

This initiative is covered by Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR310 MMU R2

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: There should be meaningful incentives for availability. To the extent that a resource is more available there should be incentives, to the extent that a resource is less available, there should be disincentives.</p> <p>Scope:</p> <p>Related Initiatives: Covered under FA1.3, FA1.4, RPA1, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

EXECUTIVE SUMMARY:

This initiative is covered by Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR311 MMU R3

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Different times of the year present different system challenges. SPP resource adequacy requirements focus on meeting peak summer load. A more frequent resource adequacy requirement, such as a seasonal (or perhaps monthly) requirement, should be developed.</p> <p>Scope:</p> <p>Related Initiatives: Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

EXECUTIVE SUMMARY:

This initiative is covered by Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR312 MMU R4

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: SPP should plan for shocks to generator availability including extreme weather events, pipeline outages, wind turbine icing and solar eclipses, and implement mitigation measures.</p> <p>Scope:</p> <p>Related Initiatives: Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

EXECUTIVE SUMMARY:

This initiative is covered by Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR316 MMU RA8 (A)

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: SPP and its stakeholders, including regulators, should conduct a study on behind the meter resources that are below the 10 megawatt threshold and determine their impacts on reliability and market outcomes. The study would identify lessons learned and provide recommendations for any potential future operational or market enhancements.</p> <p>Scope:</p> <p>Related Initiatives: Covered under RPA2.12</p>	<p>John Luallen</p>	<p>Aligned with RPA2.12</p>

EXECUTIVE SUMMARY:

This initiative is covered by RPA2.12. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR317 MMU RA9

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Establish an incentive mechanism for capacity credited in the planning reserve margin calculation to maintain availability for the duration of the accreditation period. These payments would be applicable to actual resource performance, separate from the current deficiency payments for Load Responsible Entities crediting insufficient capacity towards meeting their required planning reserve margin. This recommendation connects with critical recommendation #2.</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

Scope:		
Related Initiatives:		
Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9		

EXECUTIVE SUMMARY:

This initiative is covered by FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR318 MMU RA10

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Establish a more frequent resource adequacy requirement, such as seasonally (or perhaps monthly), that acknowledges load requirements and generation performance characteristics that are unique to that period. SPP should evaluate to what extent the requirement is fulfilled throughout the year. This recommendation connects with critical recommendation #3.</p> <p>Scope:</p> <p>Related Initiatives:</p> <p>Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	John Luallen	Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9

EXECUTIVE SUMMARY:

This initiative is covered by FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR319 MMU RA11

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>Evaluate available capacity on a resource-level, seasonally, taking into account historical availability to determine the amount of deliverable capacity that can be</p>	John Luallen	Aligned with FA1.3/1.4, RPA2.1/2.2,

<p>accredited. For instance, a resource’s credit toward the planning reserve margin would be discounted by its historical outages and derates during like periods of the year. This allows market participants to decide the appropriate solutions that increase the certainty that their resource will be available while providing an incentive to increase that availability. This recommendation connects with critical recommendation #1.</p> <p>Scope:</p> <p>Related Initiatives:</p> <p>Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>		<p>RPA2.4, RPA2.9</p>
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EXECUTIVE SUMMARY:

This initiative is covered by FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR320 MMU RA12

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective: Account for major contingencies, such as a shock to fuel systems or mechanical functionality, and implement mitigation measures.</p> <p>Scope:</p> <p>Related Initiatives:</p> <p>Covered under FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, RPA2.9</p>	<p>John Luallen</p>	<p>Aligned with FA1.3/1.4, RPA2.1/2.2, RPA2.4, RPA2.9</p>

EXECUTIVE SUMMARY:

This initiative is covered by FA1.3, FA1.4, RPA2.1, RPA2.2, RPA2.4, and RPA2.9. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR332 MMU GEC2

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p>	<p>John Luallen</p>	<p>Aligned with</p>

<p>SPP and its stakeholders should engage with regulators (both federal and state) and the natural gas industry to recognize the relationship between uncapped natural gas prices and capped electric prices and the harm that can occur to electric ratepayers. We further recommend that a solution be developed to limit the possibility of harm to electric ratepayers as a result of uncapped natural gas markets. A potential solution could include imposing limits on natural gas prices.</p> <p>Scope:</p> <p>Related Initiatives:</p> <p>Covered under FA2.3</p>		<p>FA2.3</p>
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EXECUTIVE SUMMARY:

This initiative is covered by FA2.3. The MMU is following the work of the IRATF and will provide feedback as needed.

SIR333 MMU GEC3

SCOPE	BUSINESS OWNER	TIMELINE
<p>Objective:</p> <p>SPP and its stakeholders can petition federal regulators and collaborate with the gas industry on a natural gas market trading approach that addresses the needs of natural gas-fired resources to be able to start up quickly and on short notice.</p> <p>Scope:</p> <p>Related Initiatives:</p> <p>Covered under FA2.3</p>	<p>John Luallen</p>	<p>Aligned with FA2.3</p>

EXECUTIVE SUMMARY:

This initiative is covered by FA2.3. The MMU is following the work of the IRATF and will provide feedback as needed.

APPENDIX

RESOURCES

[IRATF home page](#)

[SPP Roadmap process](#)

[2021 Winter Storm Review page](#)

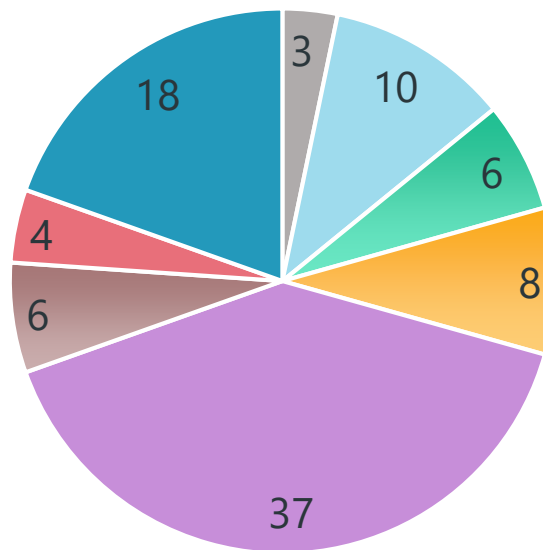
[Report: Comprehensive Review of SPP's Response to the February 2021 Winter Storm](#)

TIER 2 AND TIER 3 INITIATIVE UPDATE

SPP's board directed organizational prioritization of the work related to all tier 2 and tier 3 initiatives. All initiatives have been included in SPP's Comprehensive Roadmap process for prioritization and scheduling. There are 92 tier 2 and 3 initiatives of which 35 are not started, 26 are in progress, and 16 are complete, 15 are assigned to the parking lot.

92 Tier 2 and 3 Initiatives

- Fuel Assurance
- Communications
- Credit
- Emergency Response Process and Planning
- Market Design Initiatives
- Seams
- Transmission Planning
- Operator Tools, Communications and Processes



SUMMARY OF COMPLETED TIER 2 & 3 INITIATIVES

1. SIR361 WWE CCR4. Develop a plan to co-manage with stakeholders an accurate contact list of member representatives, regulators, elected officials and other stakeholders
2. SIR360 WWE CCR3. Develop a plan to ensure non-operations staff have the opportunity to participate in ... drills of emergency scenarios"
3. SIR359 WWE CCR2. Drill emergency communications procedures
4. SIR358 WWE CCR1: Develop a plan to ensure stakeholders have a dependable way to receive real-time alerts and contextual information about events' root cause and impacts
5. SIR353 WWE MMU COMM2. SPP should develop and maintain an email list that reaches all market participants to help facilitate market communications
6. SIR313 WWE MMU R5. Stakeholders should approve the MMU State of the Market recommendations related to outages. The Generator Outage Task Force has approved this and is awaiting ORWG action
7. SIR307 WWE COMM3. Corporate Governance Committee to consider the formation of a stakeholder group whose scope would include discussion of matters related to emergency communications
8. SIR302 WWE CR1. The CPWG will analyze the virtual reference prices expected for 1Q'22 to determine if they will adversely impact virtual activity in 1Q'22
9. SIR256 WWE OTCP1.12. Hold scheduled periodic (once or twice a day) update calls or WebEx meetings to provide operations management with an overview of the current situation
10. SIR255 WWE OTCP1.11. SPP require operational entities within the SPP region create internal distribution lists for operational communications including alert messages based on SPP defined groups/categories
11. SIR254 WWE OTCP1.10. SPP create and maintain contacts list for operational contacts in the SPP region including TOs, generator owners (GOs), and MPs
12. SIR245 WWE OTCP1.1. Post cascading analysis results (with respect to flowgates) to R-Comm or GlobalScape
13. SIR240 WWE ERP2.5. Pursue the R-Comm enhancement for partial load shed restoration
14. SIR239 WWE ERP2.4. Incorporate multiple overlapping load shed instructions into trainings and drills, placing emphasis on the R-Comm event ID number
15. SIR237 WWE ERP2.2. Perform a detailed review of the model used for determining load shed shares within the SPP region. SIR238 WWE ERP2.3. Clearly communicate with each TOP the boundaries used in determining the ratio of load to be shed and other entities load that is included in each TOP's allocation. The TOPs then have the ability to allocate the load shed amongst the entities
16. SIR218 WWE FA3.4. GOPs should coordinate w/gas pipeline operators to identify fuel supply critical loads, & work with TOPs to exclude those loads in load shed plans

ACRONYMS

- BA – Balancing authority
- BOD – SPP Board of Directors
- BTM – Behind the meter
- COMM – Communications
- CR – Contingency reserves
- CROW – Control Room Operations Window
- DR – Demand response
- EEA – Energy emergency alert
- EOP – Emergency operating procedure, as in NERC EOP
- ESR – Energy storage resource
- FA – Fuel assurance
- FERC – Federal Energy Regulatory Commission
- GADS – Generation Availability Data System
- IRATF – Improved Resource Availability Task Force
- LOLE – Loss of Load Expectation
- MMU – Market Monitoring Unit
- MP – Market participant
- MW/MWHR – Megawatts or megawatt hours
- MWG – Markets Working Group
- NAESB – North American Energy Standards Board
- NERC – North American Electric Reliability Corporation
- ORWG – Operating Reliability Working Group
- OTCP – Operator Tools, Communications and Processes
- PFR – Primary frequency response
- PRM – Planning reserve margin
- RPA – Resource planning and availability
- RSC – Regional State Committee
- RTO – Regional transmission organization
- SIR – Strategic initiative roadmap
- SAWG – Supply Adequacy Working Group
- TOP – Transmission operator
- TPL – Transmission Planning, as in NERC TPL
- WWE – Winter Weather Event