CVP Power Initiative Implementation Plan

| Milestone | Action | Target Completion | Status | Completion Date | Lead Office | Lead F |
|-------------------|--|------------------------|---|-----------------|-------------|--|
| I. Reporting | and Implementation | | | | | |
| | | | | | | |
| (I).1.a Provide | a report of implementation to the Commissioner and Deputy Commissioners. | | | | CVO | Melavic |
| | | | Reclamation provided a coordinated action plan, complete with milestones, tasks and target | | | |
| | | | completion dates for each directive on August 23. All information can be found here | - 1 1 | | |
| | Develop a schedule with reporting milestones within 60 days of memo. | 8/23/2019 | https://www.usbr.gov/mp/hydro.html. | 8/23/2019 | | |
| (I) 1 b Duovida | an implementation status report to the Commissioner and Donuty Commissioners | | | | CVO | Malavia |
| (1).1.b Provide | e an implementation status report to the Commissioner and Deputy Commissioners. | | | | CVO | Melavio |
| | Provide an implementation status report of the action plan within 120 days of memo. | 10/23/2019 | This revised plan as of October 18, 2019 is the 120-day status report. | 10/18/2019 | | |
| | Trovide an implementation states report of the action plan within 120 days of memo. | 10/23/2013 | This revised plan as of May, 2020 and presented to the next customer forum (CCC), scheduled on | 10/10/2013 | | |
| | Provide a status report every 6 months. | 4/20/2020 | June 2, 2020. | 5/18/2020 | | |
| | Provide a status report every 6 months. | 10/16/2020 | | 3/10/2020 | | |
| | Provide a status report every 6 months. | 4/15/2021 | | | | 1 |
| | Provide a status report every 6 months. | 10/12/2021 | | | | |
| | Provide a status report every 6 months. | 4/8/2022 | | | | |
| | | | | | | |
| II. Implemen | ntation - Cost Stability - Predictability and Transparency | | | | | |
| • | | | | | | Τ |
| (II) 1 a - Work y | with customers, WAPA and project proponent for Sites/North-of-Delta Off-Stream Storage (NODO | S) Project on hydronow | er nurnose analysis | | MP-700 | Ryan Da |
| (11).1.a WOIK (| with tustomers, ward and project proponent for sites/North-of-Delta On-Stream storage (NODO | Troject on nydropow | er purpose ariarysis. | | 1017-700 | INVAIL D |
| | Discuss analysis of benefits, costs, and financial impacts associated with the draft feasibility | | Discussion Initiated in January 2019 customer meeting and ongoing per customer request to receive | | | |
| | report's inclusion of a hydropower purpose to the proposed Sites/NODOS project with power | | updates. It has been decided that hydropower generation is no longer being used or considered as a | | | |
| | customers at Power Customer Coordination Committee (CCC) meeting. | | benefit for NODOSand thus no longer in the benefit calculation for Reclamation purposes. | 3/13/2019 | | |
| | castomers at 1 over castomer coordination committee (ede) meeting. | | This Item was discussed with Power customers on 2/11/2020 at the CCC Meeting and with | 3/13/2013 | | |
| | | | WAPA/Sites Administrator. Sites/NODOS is behind schedule due to manning issues. Sites is currently | | | |
| | | | pursuing 2x paths with USBR as exchange customer or investor. Results in FR are now out of date due | | | |
| | | | to sponsor changing many facilities/configurations. Recent efforts have removed hydropower | | | |
| | | | generation as a claimed benefit from the NODOS project. As a result, no further hydropower | | | |
| | | | modeling has been reviewed. The Authority, under its new alternative, is producing new hydropower | | | |
| | | | modeling, independently of Reclamation and will make this modeling available December 2020; | | | |
| | Draft Lt-Gen hydropower purpose analysis for Sites/NODOS project discussion with power | | however, this modeling is unlikely to impact any benefit analysis as hydropower generation is no | | | 1 |
| | preference customers. | 2/11/2019 | longer being used in the benefit calculation for Reclamation purposes. | 2/11/2020 | | |
| | | | The NODOS Feasibility Study is currently at OMB (9/18/2020) despite the Sites Authority reviewing | | | |
| | | | different alternatives. USBR expects a determination of feasibility by the Secretary around November | | | 1 |
| | | | 2020. The feasibility report will go forward using the 2017 draft EIS/EIR that went out for public | | | |
| | Submit administrative Final Feasibility Report to Commissioner's Office. | 5/28/2020 | comment. The final EIS/EIR is to be completed by Spring 2022. | 9/2/2020 | | |
| | | | The NODOS Feasibility Report is currently at OMB. The FR is framed to show bookends of a 1.3- | | | 1 |
| | | | 1.8MAF reservoir is feasible; Sites Authority is refining alternatives within these bookends. USBR | | | |
| | | | expects a determination of feasibility by the Secretary around December 2020. The feasibility report | | | 1 |
| | Cultural to administration Final Facility and a stable and a State and the Control of the Contro | | will go forward using the 2017 draft EIS/EIR that went out for public comment, a supplemental draft | | | |
| | Submit administrative Final Environmental Impact Statement to Commissioner's Office. | 2/28/2022 | EIS/EIR will go out for public review July 2021. The final EIS/EIR is to be completed by spring 2022. | | | |
| | Participate in regular calls and discussions with Joint Power Authority to develop operations plan proposal. | Ongoing | Participating in Reservoir Committee and Executive Committee meetings. | Ongoing | | |
| | proposa. | | | Ongoing | | |
| | | | Schedule will be created after determination of Feasibility; Principles of Operation and basic | | | |
| | Work with WAPA, customers and project proponents to finalize operations plan after | | guidelines include no harm to CVP Operations. Determination of feasibility expected by December | | | |
| | determination of feasibility. | TBD 2021 | 2020. | | | |
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Last Revised:

10/20/2020

| | | This Item was discussed with Power customers on 2/11/2020 at the CCC Meeting and with | | | |
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| | | · · · | | | |
| | | WAPA/Sites Administrator. Sites/NODOS is behind schedule due to manning issues. Sites is currently | | | |
| | | pursuing 2x paths with USBR as exchange customer or investor. Results in FR are now out of date due | | | |
| | | to sponsor changing many facilities/configurations. Recent efforts have removed hydropower | | | |
| | | generation as a claimed benefit from the NODOS project. As a result, no further hydropower | | | |
| | | modeling has been reviewed. The Authority, under its new alternative, is producing new hydropower | | | |
| | | modeling, independently of Reclamation and will make this modeling available December 2020; | | | |
| | | | | | |
| | Draft Lt-Gen benefits analysis for Sites/NODOS project for discussion with power preference | however, this modeling is unlikely to impact any benefit analysis as hydropower generation is no | | | |
| | customers. | 2/11/2019 longer being used in the benefit calculation for Reclamation purposes. | 2/11/2020 | | |
| | | The NODOS Feasibility Study is currently at OMB (9/18/2020) despite the Sites Authority reviewing | | | |
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| | | expects a determination of feasibility by the Secretary around December 2020. The feasibility report | | | |
| | | will go forward using the 2017 draft EIS/EIR that went out for public comment, a supplemental draft | | | |
| | Submit administrative Final Environmental Impact Statement to Commissioner's Office. | 2/28/2022 EIS/EIR will go out for public review July 2021. The final EIS/EIR is to be completed by spring 2022. | | | |
| | Participate in regular calls and discussions with Joint Power Authority to develop operations plan | | | | |
| | proposal. | Ongoing Participating in Reservoir Committee and Executive Committee meetings. | Ongoing | | |
| | Work with WAPA, customers and project proponents to finalize operations plan after | Schedule will be created after determination of Feasibility; Principles of Operation and basic | | | |
| | determination of feasibility. | TBD 2021 guidelines include no harm to CVP Operations. Determination of feasibility expected by December | | | |
| (11) 4 | | | | 11000 | |
| (II).1.c Worl | rk with non-federal cost share partners, preference power customers, WAPA and stakeholders for Shasta F Provide Shasta Dam Raise updates at WAPA CCC meeting to ensure benefits, costs, and financial | Raise hydropower purpose analysis. | | MPCO | Welsh |
| | impacts associated with the draft Feasibility Report's inclusion of a hydropower purpose to the | | | | |
| | proposed project are analyzed, evaluated, and considered as the project moved forward. | 8/22/2019 Complete. | 8/22/2019 | | |
| | proposed project are analyzed, evaluated, and considered as the project moved forward. | | 8/22/2019 | | |
| | | Lt-Gen and PLEXOS models continue to be analyzed by Reclamation. Lt-Gen model may be | | | |
| | | overpredicting generation and therefore planning division is reviewing model and looking for | | | |
| | | solutions. They are currently migrating to a greater focus on Lt-Gen for power modeling, instead of | | | |
| | | PLEXOS Lt-Gen is being utilized to provide the power benefits due to unforeseen restrictions in the | | | |
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| | | Plexos model. Reclamation is still assessing and adjusting the model to try and reflect results | | | |
| | Lt-Gen corrections for power benefits due/to-be-completed. | 11/1/2019 consistent with those from Plexos. The current timeline to completion of this item is still TBD. | | | |
| | Contract to be awarded to provide additional PLEXOS runs to improve hydropower benefits | | | | |
| | analysis. | 11/1/2020 Contract awarded. Complete. | 8/19/2019 | | |
| | | Benefits analysis will be provided at the power customer meeting following completion. Currently | | | |
| | Complete revised benefits analysis. | 4/1/2021 reviewing the modelling results of the revised benefits analysis. | | | |
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| (II).1.d Wor | rk with preference power customers and WAPA as appropriate on other feasibility studies. | As reported at the necessary and to presided at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at the Oatch at 40, 2010 CCC and the Dade at 40, 2010 | | MP-700 | van Rijr |
| | Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings to ensure | As reported at the power update provided at the October 10, 2019 CCC meeting, a Reclamation team | | | |
| | the benefits, costs, and financial impacts associated with the inclusion of a hydropower purpose | has actively been analyzing the models LT Gen and Plexos to assess the level of accuracy appropriate | | | |
| | for proposed projects are analyzed, evaluated, and considered as projects move forward. | Ongoing for feasibility studies. As of April, 2020, this is still ongoing. | Ongoing | MPCO | Welsh |
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| (II).1.d.1 If f | feasibility is appropriately determined and Congressional authorization provided for a project - work with | power customers, WAPA, project proponents, water contractors, and stakeholders to develop detailed operations plan | l . | | |
| | Modify appropriate internal directives to include outreach for stakeholders and power marketing | Following release of Appraisal Study D&S (CMP 09-01) and Planning Policy (CMP P09), Reclamation | | | |
| | agencies. Determine if additional outreach is required before feasibility is determined and add to | will begin updates to CMP 09-02 in 2019. CMP 09-02 was revised on December 12, 2019. As D&S are | | | |
| I | | | O | 04 | |
| | | 7/31/2020 updated, BOR will provide updates to CVP Power customers as relevant. | Complete 12/12/2019 | 84-55000 | Max M |
| | appropriate directives and standards (if not already included). | | | | |
| | appropriate directives and standards (if not already included). Reclamation's Planning Office (MP-700) will begin coordination and development of detailed | | | | Ī |
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| | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed | Ongoing Work will occur if/when feasibility is determined for any proposed project. | Ongoing | MP-700 | Van Rij |
| | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional authorization is provided for a project. | | | | |
| (II). 1.e Dev | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional | ost recovery. | | MP-3000 | |
| (II). 1.e Dev | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional authorization is provided for a project. velop a Standard Operating Procedure (SOP) to document methodology and procedures for construction | ost recovery. Reclamation met with the CVP FAC and determined the SOP will document what Reclamation will do | | | |
| (II). 1.e Dev | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional authorization is provided for a project. | ost recovery. Reclamation met with the CVP FAC and determined the SOP will document what Reclamation will do 7/19/2019 to ensure repayment is accomplished by 2030. | | | |
| (II). 1.e Dev | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional authorization is provided for a project. velop a Standard Operating Procedure (SOP) to document methodology and procedures for construction | ost recovery. Reclamation met with the CVP FAC and determined the SOP will document what Reclamation will do 7/19/2019 to ensure repayment is accomplished by 2030. An SOP was drafted and sent to FAC customers and WAPA for CVP Power customers for review. | | | Van Rijr Lubas-W |
| (II). 1.e Dev | Reclamation's Planning Office (MP-700) will begin coordination and development of detailed operations plan if and when feasibility is appropriately determined and Congressional authorization is provided for a project. velop a Standard Operating Procedure (SOP) to document methodology and procedures for construction | ost recovery. Reclamation met with the CVP FAC and determined the SOP will document what Reclamation will do 7/19/2019 to ensure repayment is accomplished by 2030. | | | |

| | re draft SOP at next FAC meeting. | 9/20/2019 Initial draft SOP was shared 9/18/2020. Revised SOP has been sent to FAC and WAPA customers. | 9/18/2020 | | |
|--|---|--|-----------------------------------|----------------|---------|
| | | Reclamation will share the final SOP for Construction Cost Recovery with Power customers at the | | | |
| | | Customer Meeting immediately following the finalization of the SOP. Power customers have already | | | |
| Shar | re draft SOP at WAPA CCC Customer Meeting. | 10/10/2019 received the most updated draft SOP. | | | |
| (II).1.f Develop aid | d-to-irrigation document for Water Infrastructure Improvement for the Nation (WIIN) Act projects. | | | 84-55000 | Bill Ta |
| | | | | | |
| | | Reclamation provided a presentation and consulted with water and power stakeholders on TRMR | | | |
| Deve | velop document describing handling of aid-to-irrigation for WIIN Act construction prepayment | #122, which was then finalized August 2019. The document can be found here: | | | |
| and | new construction projects funded under WIIN authorities within 60 days of memo. | 8/28/2019 https://www.usbr.gov/recman/temporary_releases/pectrmr-122.pdf | 8/28/2019 | | |
| | | | | | |
| (II).1.g Share the S | SOP documenting the methodology for treatment of non-permanent revenue. | | | | |
| | | Two draft SOP's have been prepared. They are being reviewed internally and shared with | | | |
| | | Reclamation FAC customers prior to sharing with WAPA for their comments. Still in Internal review | | | |
| | | process. Two Draft SOPS were shared with FAC members and WAPA on 5/26/2020. Changes and | | | |
| Shar | are draft SOP with customers at customer CCC meeting. | 10/10/2019 comments were received and documented. | 5/26/2020 | | |
| | cuss two finalized SOPs with power customers at CCC meeting. | 10/10/2019 To be shared at next CCC meeting. | · · | | |
| | alize SOP, which identifies (a) what this revenue represents (definition of this water), (b) the | | | | |
| | tification for the accounting process, and (c) description of the rate-setting schedules. | 11/1/2019 Will finalize once all parties have seen and provided comments on SOP. | | | |
| Revi | riew the guidelines annually. | 11/1/2020 Reclamation can review Guidelines annually as needed. | Ongoing | | |
| | | | | | |
| (II).1.h Work with | WAPA to maintain 10-year forecast of capital improvements. Review with customers at Technical Co | ommittee Meetings. | | CVO | Melav |
| | | | 0/5/2010 | | |
| | mplete 10-year forecast of capital improvements for CVP power infrastructure. | 8/6/2019 Complete and ongoing revisions tied to each MMPPC meeting. | 8/6/2019 | | |
| | clamation provided a presentation and an opportunity to review the 10-year forecast with CVP | This was provided at the MMPPC and Technical Committee Meeting and finalized August 2019 | 0/6/2010 | | |
| custo | tomers at Technical Committee Meetings. | 8/6/2019 Complete and ongoing. | 8/6/2019 | | |
| | | For latest updates, please contact Steve Melavic at smelavic@usbr.gov. The forecast is being revised | | | |
| | | and shared with power customers more frequently than annually (MMPPC, Technical Committee and | | | |
| | | CCC meetings). This has been included as part of the agenda for each meeting and is updated | | | |
| Upda | date 10-year forecast annually. | 8/1/2020 regularly. Updates are shared at each meeting as part of the agenda. | Complete/Ongoing | | |
| | | | | | |
| (II).1.i Work with V | WAPA, power customers, and stakeholders to develop a variance percentage threshold between bud | Igeted and actual expenditures. | | MP-3000 | Lubas |
| (II).1.i Work with V | WAPA, power customers, and stakeholders to develop a variance percentage threshold between bud | · | | MP-3000 | Lubas |
| (II).1.i Work with \ | WAPA, power customers, and stakeholders to develop a variance percentage threshold between bud | Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% | | MP-3000 | Lubas |
| | | Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. | | MP-3000 | Lubas |
| Recla | clamation will seek customer and stakeholder input on appropriate variance percentage | Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. Explanation of any exceedance beyond 10% will be provided by both agencies. The memorandum was | | MP-3000 | Lubas |
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| Reclasion three designs and the second secon | clamation will seek customer and stakeholder input on appropriate variance percentage eshold. Exermine appropriate variance percentage threshold between budgeted and actual expenditures transparency of multipurpose O&M and construction costs. Cument and share variance percentage commitment with power customers. | Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. Explanation of any exceedance beyond 10% will be provided by both agencies. The memorandum was submitted on 9/23/2020. Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. Explanation of any exceedance beyond 10% will be provided by both agencies. The memorandum was submitted on 9/23/2020. 6/1/2020 This information will be shared at the CCC meeting immediately following finalization. Reclamation continues to develop this report and will share when completed. Suggested metrics for the data shared with customers via email. CVO Office shared Benchmarking data from 2016-2018 | 9/23/2020 | | Sanche |
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| Reclasion three designs and the second secon | clamation will seek customer and stakeholder input on appropriate variance percentage eshold. Itermine appropriate variance percentage threshold between budgeted and actual expenditures transparency of multipurpose O&M and construction costs. Incument and share variance percentage commitment with power customers. It benchmarking of CVP hydropower data and share annually. It pare preliminary report outlining results of cost and operational data for CVP generators. | Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. Explanation of any exceedance beyond 10% will be provided by both agencies. The memorandum was submitted on 9/23/2020. Reclamation submitted a memorandum to WAPA for approval, which proposes to establish a 10% variance threshold for budget and actual expenditures on multi-purposes O&M Construction Costs. Explanation of any exceedance beyond 10% will be provided by both agencies. The memorandum was 1/13/2020 submitted on 9/23/2020. 6/1/2020 This information will be shared at the CCC meeting immediately following finalization. Reclamation continues to develop this report and will share when completed. Suggested metrics for the data shared with customers via email. CVO Office shared Benchmarking data from 2016-2018 10/31/2019 with Power customers in February 2020 at the TC Meeting Results were shared at customer TC meeting in February 2020 following completion. This is an | 2/6/2020 | | |
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| Recomption will doubten to eccordinate with the gaugest as used data for eccentrol making and to eccentral valley and the control of the property of | | Coordinate with the American River and Sacramento River groups when evaluating power plant bypass operations for species mitigation. | Ongoing | | Ongoing | | |
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| Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations. Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations. Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations. Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations. Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations will be control. Invite WAPA Sologist to tour the Central Valley Office control center and provide an overview of CVO operations will be control. Invite WAPA Sologist to attend adaptive management committees (American River Control operations will be control. Invite WAPA Sologist to attend adaptive management committees (American River Control operations will be control. Invite WAPA Sologist to attend adaptive management committees (American River Control operations will be control. Invite WAPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend adaptive management committees (American River Control operations when the WaPA Sologist to attend to the WaPA Sologist to attend adaptive management committees (American River Control operations supplied with the WaPA Sologist to attend Adaptive Man | | | | incorporate real-time monitoring into decisions. Updates from these meetings are provided during customer meetings. In late October 2019, Reclamation and WAPA's engagement with the American River group resulted in mitigating a proposed bypass of Folsom Powerplant by applying available science. For Fall 2020 Reclamation is awaiting a power bypass proposal from the American River Group. This proposal will be evaluated using current, relevant information and the best available | Ongoing | | |
| mile WAPA Biologist to tour the Central Valley Office control center and provide an overview of CVO operations. Invite WAPA Inflineries biologist to attend adaptive management committees (American River Group and Sacramento New Temperature Task Group) to help ensure requests for power bypass operations are supported by best availables science. (III) 1.1 Review Shats Water Control Manual (WCM) potential. | (III) 1 h . Coo. | undicate with MADA fish suits his lociet in adouting management assembles. | | | | CVO | Vita als/N |
| Limite WAPA fibreires biologis to attend adaptive management committees (American River Group and Sacraments River Temperature Task Group) to help ensure requests for power bypass operations are supported by the standing standing of the Manual (WCM) potential. Reclamation will evaluate the forecast-informed reservoir operations when the U.S. Army Corps of Engineers operations are supported by best available science. | (III).1.b Coor | rdinate with WAPA fisheries biologist in adaptive management committees. | | made to include the WAFA fisheries biologist in pertinent river systems discussions. | | CVO | Kiteck/iv |
| Group and Sacramento River Temperature Task Group) to help ensure requests for power bypass operations are supported by best available science. (III) 1.4 Provide updates on flood control Operations. (III) 1.4 Provide updates on flood operations will evaluate the floor power during the forcest informed reservoir operations when the U.S. Army Corps of Engineers opens this process for comment. (III) 1.4 Provide updates on flood control operations. (III) 1.4 Provide updates on flood operations updates in the weekly status reports to power customers. (III) 1.4 Provide updates on flood operations updates in the weekly status reports to power customers. (III) 1.4 Provide updates on flood operations updates in the weekly status reports to power customers. (III) 1.4 Provide updates on flood operations updates in the weekly status reports to power customers. (III) 1.4 Provide updates on flood operations updates in the weekly status reports to power customers. (III) 1.4 Provide updates and receive in the weekly status reports to power customers. (III) 1.4 Provide updates and receive in the weekly status reports to power customers. (III) 1.4 Provide updates and receive updates and major Project Planning Committee (MMPPC) (IIII) 1.4 Provide updates and major Project Planning Committee (MMPPC) (III) 1.4 Provide updates and major Project Planning Committee (MMPPC) (III) 1.4 Provide updates and the normal provides water operations updates at each power customer CCC meeting. This includes on appendix provides water operations updates at each power customer CCC meeting. This includes on appendix provides water operations updates at each power customer CCC meeting. This includes on appendix the normal provides water operations updates at each power customer CCC meeting. This includes on appendix the normal provides water operations updates at each power customer CCC meeting. This includes the normal provides water operations updates at each power customer CCC meeting. This i | | | 4/26/2019 | Complete. | 4/26/2019 | | |
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| Brief DC leadership on Policy overview briefing. 9/20/2019 Complete. 9/20/2019 | (III).2.a Revi | Revise existing Hydropower Program Policy to develop appropriate language that Power Resources | | | | | |
| | (III).2.a Revi | Revise existing Hydropower Program Policy to develop appropriate language that Power Resources Office will maintain, monitor, and renew procurement options to streamline regional hydropower | 7/2/2010 | Complete | 7/2/2010 | | |
| | (III).2.a Revi | Revise existing Hydropower Program Policy to develop appropriate language that Power Resources Office will maintain, monitor, and renew procurement options to streamline regional hydropower program services in a way that is consistent with existing law and regulations. | | · | | | |
| | (III).2.a Revi | Revise existing Hydropower Program Policy to develop appropriate language that Power Resources Office will maintain, monitor, and renew procurement options to streamline regional hydropower program services in a way that is consistent with existing law and regulations. Brief DC leadership on Policy overview briefing. | 9/20/2019 | Complete. | 9/20/2019 | | |

| Reclaration will also the personners as the MP Power Woods and in catenor in receipts. Methods to provide the service of the process of the service of the | | T | | | | |
|--|--|----------------------------|--|---|-----|---------|
| (V).1.6 Continued support for WAPA - Energy imbalance market (EMA) Reclination provided the state for the pape makes is to WW. Reclination continuers work on particular operations of the state for the pape makes is to WW. Reclination provided the state for the pape makes is to WW. Reclination (V). In the state of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the paper makes in the work of the state of the paper makes in the work of the state of the paper makes in the work of the paper makes in the paper makes in the work of the paper makes in the work of the paper makes in the work of the paper makes in the | Develop specific benchmarks to measure cost savings by using new procurement tools. | | Reclamation continues to explore procurement streamlining solutions. A benchmark strategy was developed in November 2019. At this point the Tennessee Valley Authority interagency Agreement has not been utilized on CVP projects. We have coordinated with them on upcoming work and plan to have them onsite to look at the proposed projects. We are also working on additional contracts to | Ongoing | | |
| Reclamation provided the data for the gap analysis to MAN. Reclamation continues work or partners, SCAND modification or retarting into the EM. Reclamation reveals approved from explorations or retarting into the EM. Reclamation reveals approved from explorations and provided and the state of the partners beared for funding the LM in Huture year. Other 2019 states, Reclamation Nature year. Other 2019 states of the partners | IV. Implementation - Value of Resource | | | | | |
| Reclamation provided the data for the gap analysis to MAN. Reclamation continues work or partners, SCAND modification or retarting into the EM. Reclamation reveals approved from explorations or retarting into the EM. Reclamation reveals approved from explorations and provided and the state of the partners beared for funding the LM in Huture year. Other 2019 states, Reclamation Nature year. Other 2019 states of the partners | | | | | | |
| SCOAD modifications for funding the BM in fundamental received approval from customers' Socremance Results (Cold) parametrize of funding the BM in fundamental particles (Cold) parametrize of the process of the proces | (IV).1.a Continued support for WAPA - Energy imbalance market (EIM) | | | | CVO | Melavic |
| Public comment period on EMR ended on 812/13/20 nat gr. 7,2013 WAPA made a determination to more continue to provide support for following WAPA determination on implementing EM. Organic Public Comment period on EMR ended on 812/13/20 in EMR. Reclamation is continuing to 8/27/2019 (MY.1.b Explore water order schedules to allow for better forecasting of O'Neil Pump/Generation Plant operations and power demands. Meet with SLDMWA. San Joaquin River Water Authority, and San Joaquin River Exchange Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors of Management of Management of Contractors of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management o | Continue to meet with customers to evaluate benefit and costs for implementation. | | SCADA modifications for entering into the EIM. Reclamation received approval from customers' Governance Board for funding the EIM in future year. October 2019 status: Reclamation (CVO) planning to develop new dispatch algorithm by Sep 2020. WAPA and Reclamation have held meetings up through April 2020 in regards to evaluating benefits and costs for implementation. | 4/2020 - Ongoing | | |
| Public comment period on EMR ended on 812/13/20 nat gr. 7,2013 WAPA made a determination to more continue to provide support for following WAPA determination on implementing EM. Organic Public Comment period on EMR ended on 812/13/20 in EMR. Reclamation is continuing to 8/27/2019 (MY.1.b Explore water order schedules to allow for better forecasting of O'Neil Pump/Generation Plant operations and power demands. Meet with SLDMWA. San Joaquin River Water Authority, and San Joaquin River Exchange Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors to discuss upon on improve Q Neil Operations. O'All Demands of Contractors of Management of Management of Contractors of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management of Contractors of Management of Management of Contractors of Management o | Continue coordination meetings with Deplacestics, WADA and DANG | 4/2010 Onceine | Francisco de contrar a continua de consumbada se a Regionactica NAADA and DANG | 4/2020 Onceine | | |
| Meter customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors to discuss option on improved possess of the Complete. Share power economics data with water customers. 6/12/2019 (Sconnics Share and Complete. 6/12/2019 (Sconnics Share and Complet | | | Public comment period on EIM ended on 8/16/19. On Aug 27, 2019, WAPA made a determination to move forward with their Sierra Nevada Region's participation in EIM. Reclamation is continuing to | | | |
| Meter customers (SLDMWA, San Joaquin River Water Authority, and San Joaquin River Exchange Contractors to discuss option on improved possess of the Complete. Share power economics data with water customers. 6/12/2019 (Sconnics Share and Complete. 6/12/2019 (Sconnics Share and Complet | (IV) 1 h Explore water order schedules to allow for better forecasting of O'Neil Pump/Generation Plant operation | l ons and nower demands | <u> </u> | | CVO | Fox |
| Contractors to discuss option on improving O'Nell Operations. 6/12/2019 Economies shared - Complete. 6/12/2019 | (17).213. 2 Explore water order senedates to allow for better forecasting of 5 Neil Fullipy deficiation Figure operation | | | | | 100 |
| A new process was developed and testing began in October 2019. The process includes transmitting daily pumping generation shedulers between CVO and SLDMWA. Denver IT approved direct transfer 12/31/2019 [(V)].t.c Adopt principles outlined in framework on improved operational flexibility. Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. Ongoing Power Update was provided at the CCC on October 10, 2019. Ongoing Power Update was provided at the CCC on October 10, 2019. Ongoing CVO Melavic Experiments 1, which proposed lower minimum takes in daylight low value hours, and 2, which proposed lower minimum takes in surrounding hours by raising minimum takes in the morning oneak hours, were accepted by Reclamation at useful tool, but needs some automation to reduce the impact on schedulers for customer which customers per-disclose portions of their intended 8R schedule, appears to be a useful tool, but needs some automation to reduce the impact on schedulers for customer which susted means the goal of providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some matchines will operate at, an opportunity to watch lake levels to minimize between hours of minight and HE16 and move production of RR energy to the high value hours are minimated and HE16 and move production of RR energy to the high value hours of graphic update providing even more customer flexibility. The proposals is a recognition that there is a machine minimum at which some matchines will operate at, an opportunity to watch lake levels to minimize between hours of minight and HE16 and move production of RR energy to the high value hours are provided and testing the sequence of the providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some matchines will operate at, an opportunity to watch lake levels to minimize between hours of minimum at which some matchines will operate at, an opportunity to watch | Contractors to discuss option on improving O'Neil Operations. | | Contractors) have agreed to improve forecasting of operations at O'Neill Complete. | | | |
| Test the new process to transmit O'Neill and Tracy PUP schedules to the SLDMWA. 10/1/2019 of data to SLDMWA in December 2019. 12/31/2019 | Share power economics data with water customers. | 6/12/2019 | • | 6/12/2019 | | |
| Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. Ongoing Power Update was provided at the CCC on October 10, 2019: Ongoing CVO Melavic (IV).1.d Advance discussions about optimizing operational flexibility scheduling. Experiments 1, which proposed lower minimum takes in daylight low value hours, and 2, which proposed lower minimum takes in surrounding hours by raising minimum takes in the morning onpeak hours, were accepted by Reclamation and WAPA to become a part of standard operations in August 2019. Experiment 3, under which customers pre-disclose portions of their intended BR schedules for customer data collection. A new experiment (4) was proposed by a WAPA contractor at last customer meeting which would provide a volume target to customers with the goal of providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HEIG and move production of BR energy to the high value hours and the providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HEIG and move production of BR energy to the high value hours and the providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HEIG and move production of BR energy to the high value hours and the providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HEIG and move production of BR energy to the high value hours and the provided and the providing even more customer floxibility and | Test the new process to transmit O'Neill and Tracy PUP schedules to the SLDMWA. | 10/1/2019 | daily pumping generation schedules between CVO and SLDMWA. Denver IT approved direct transfer | 12/31/2019 | | |
| [IV).1.d Advance discussions about optimizing operational flexibility scheduling. Experiments 1, which proposed lower minimum takes in daylight low value hours, and 2, which proposed lower minimum takes in surrounding hours by raising minimum takes in the morning on peak hours, were accepted by Reclamation and WAPA to become a part of standard operations in August 2019. Experiments 1, under which customers pre-disclose portions of their intended BR schedule, appears to be a useful tool, but needs some automation to reduce the impact on schedulers for customer data collection. A new experiment (4) was proposed by a WAPA contractor at last customer meeting which would provide a volume target to customers with the goal of providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HEL6 and move production of BR energy to the high value hours Reclamation is considering this experiment and alternatives. Exp 4 could realize higher value from reshape, but could also create difficult generation transitions and create sub-optimal max peaking for graphic update presentation by WAPA. Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. 10/10/19 - Ongoing Experiments are evaluated monthly and discussed regularly at Power Customer CCC meetings. Ongoing CVO | (IV).1.c Adopt principles outlined in framework on improved operational flexibility. | | | | | |
| Experiments 1, which proposed lower minimum takes in daylight low value hours, and 2, which proposed lower minimum takes in surrounding hours by raising minimum takes in the morning onpeak hours, were accepted by Reclamation and WAPA to become a part of Section and WAPA to Section and WAPA | Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. | Ongoing | Power Update was provided at the CCC on October 10, 2019. | Ongoing | CVO | Melavic |
| proposed lower minimum takes in surrounding hours by raising minimum takes in the morning on- peak hours, were accepted by Reclamation and WAPA to become a part of standard operations in August 2019. Experiment 3, under which customers pre-disclose portions of their intended BR schedule, appears to be a useful tool, but needs some automation to reduce the impact on schedulers for customer data collection. A new experiment (4) was proposed by a WAPA contractor at last customer meeting which would provide a volume target to customers with the goal of providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HE1G and move production of BR energy to the high value hours Reclamation is considering this experiment and alternatives. Exp 4 could realize higher value flexible higher value flexible reshape, but could also create difficult generation transitions and create sub-optimal max peaking of standard operations. Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. 10/10/19 - Ongoing Experiments are evaluated monthly and discussed regularly at Power Customer CCC meetings. Ongoing CVO | (IV).1.d Advance discussions about optimizing operational flexibility scheduling. | | | | | |
| | | | proposed lower minimum takes in surrounding hours by raising minimum takes in the morning on- peak hours, were accepted by Reclamation and WAPA to become a part of standard operations in August 2019. Experiment 3, under which customers pre-disclose portions of their intended BR schedule, appears to be a useful tool, but needs some automation to reduce the impact on schedulers for customer data collection. A new experiment (4) was proposed by a WAPA contractor at last customer meeting which would provide a volume target to customers with the goal of providing even more customer flexibility. The proposal is a recognition that there is a machine minimum at which some machines will operate at; an opportunity to watch lake levels to minimize between hours of midnight and HE16 and move production of BR energy to the high value hours Reclamation is considering this experiment and alternatives. Exp 4 could realize higher value from reshape, but could also create difficult generation transitions and create sub-optimal max peaking | hydropower website for graphic update presentation by WAPA. | | |
| (IV).2 Track schedule for California zero carbon and carbon neutral rulemaking process. | Discuss as a part of Reclamation's "Power Update" at all Power Customer CCC meetings. | 10/10/19 - Ongoing | Experiments are evaluated monthly and discussed regularly at Power Customer CCC meetings. | Ongoing | CVO | |
| | (IV).2 Track schedule for California zero carbon and carbon neutral rulemaking process | | | | | Rishon |

| | Reclamation's Power Resources Office will track the schedule for the California zero carbon and carbon neutral energy rulemaking process. | Reclamation is registered with California State list-serves responsible for SB-100 implementation and will receive updates as the rulemaking process continues. Reclamation's Power Resources Office will continue to work with the HPOC to keep awareness of this action. Reclamation supports Power Customer's desire to have large hydro count for renewable energy credits and understands the 9/1/2021 significance of this desire. | Ongoing | |
|-------------|---|---|-------------------|--------|
| V. Implem | nentation - Improved Customer Service | | | |
| (V).1.a Ado | opt framework for large-scale delta conveyance facility. | | | Melavi |
| | Engage power in the planning process and provide regular updates to power customers. | The State of California continues to proceed with planning efforts for the Delta Conveyance Project. The state released the Notice of Preparation (NOP) for the new project. Reclamation submitted a comment letter that requested a clear delineation between the existing biological monitoring requirements and the monitoring requirements resulting from changes from system wide programs due to the addition of the Delta Conveyance Project; an initial plan that describes how DWR would operate the Delta Conveyance Project and comply with Federal Endangered Species Act requirements related to operations; and a detailed analysis of the effects of the Delta Conveyance Project on the 5/31/19 - Ongoing CVP. 4/20/2 | 020 - Ongoing CVO | |
| (V).1.b Dev | velop Mid-Pacific webpage on Reclamation's website to host initiative updates. | | PAO | Plain |
| | Develop webpage that contains the (a) coordinated action plan, (b) biannual updates, (c) accomplishments, and (d) reference materials for the CVP Power Initiative. | The webpage and all associated information can be found here: 6/24/2019 https://www.usbr.gov/mp/hydro.html - Complete. | 6/24/2019 | |