



APPENDIX E OPERATING PROCEDURES

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Section 1. Purpose

This document is the Appendix E to the Services Agreement between Northern California Power Agency (“NCPA”) and Placer County Water Agency (“Customer” or “PCWA”) dated _____, 20__ (the “Services Agreement”). The following Operating Procedures are established to document notification and response protocols, roles, and responsibilities between NCPA and Customer regarding dispatch and operations of Customer’s generation facilities.

Section 2. Scope

This Operating Procedure applies to NCPA scheduling and dispatch personnel, and Customer’s generation facility operations and maintenance personnel, as applied to the operation of Customer’s Middle Fork American River Project (“MFP”).

Section 3. Responsibilities

3.1 NCPA

3.1.1 Monitoring of MFP hydroelectric generation and flow regulation facilities twenty-four (24) hours a day, seven (7) days a week, from NCPA Dispatch Center.

3.1.2 NCPA’s operating personnel will follow the following operational order of priorities when making decisions:

- a. Public and Employee Safety
- b. Environmental Compliance
- c. Facility Protection
- d. Power Generation

3.1.3 Responding to operational directions or instructions provided to the NCPA Dispatch Center by the Transmission Operator, the CAISO, and Customer.

3.1.4 Responding to changes in conditions affecting the MFP on a real-time basis (e.g., changes in water flow), within the parameters of the operational directions or instructions provided to the NCPA Dispatch Center.

3.1.5 Communicating with the Transmission Operator and CAISO, and entering NERC GADS data in response to Customer’s notifications of Forced Outages.

3.1.6 Keeping Customer Hydro Station and Roving Operators informed of plant status, potential problems, local transmission line outages, etc.

3.1.7 Monitor compliance with specific FERC license requirements for FERC Project No. 2079 (MFP), including minimum and pulse flow releases.

3.1.8 Complying with the MFP Emergency Action Plan (“MFP EAP”), and initiating the MFP EAP when needed.

3.1.9 Complying with applicable record-keeping procedures, including making required records available to Customer upon Customer’s reasonable request.

3.1.10 Drum will continue to FAX or PDF via email, the “Midnight Water Report” to Customer daily.

3.2 PCWA

3.2.1 Customer will staff a Hydro Roving Operator seven (7) days a week, day shift, from 0700 to 1730. The Hydro Roving Operator has responsibility for the entire MFP during his/her shift. Customer will typically staff a Hydro Station Operator at Hell Hole seven (7) days a week, day shift, from 0700 to 1730. The scheduled Hydro Roving and Station Operators will check in with the NCPA Dispatch Center daily. Customer will provide an on-call operator for all hours of all days when a Hydro Roving Operator is not available, and will keep the NCPA Dispatch Center apprised of contact details for the on-call operator.

3.2.2 Customer Operators will keep the NCPA Dispatch Center informed of plant status and/or any issues that would or could affect the NCPA Dispatch Center’s ability to operate the MFP remotely. In addition, Customer Operators will keep the NCPA Dispatch Center informed of maintenance activities that could affect generation or water conveyance facilities, and expected alarms that would be received via SCADA.

3.2.3 Customer Operators will keep the NCPA Dispatch Center apprised of specific FERC license requirements for FERC Project No. 2079 (MFP) that require monitoring, including:

- a. Minimum and pulse flow releases
- b. New license requirements

3.2.4 Customer O&M personnel will notify the NCPA Dispatch Center when entering and exiting MFP Powerhouses or Dams outside of normal Customer working hours, which are 0700 – 1730, seven (7) days a week.

Section 4. Normal Operations

4.1 Generating unit (unit) control mode will normally be Remote Auto at the NCPA Dispatch Center for each plant.

4.2 Unit startup and shutdown.

- a. MFP units will be scheduled pursuant to the ____.
- b. Routine unit startup and shutdown will be accomplished remotely by the NCPA Dispatch Center.

4.3 When units are started up or shut down by Customer operators the following shall occur:

- a. Customer Operators will only startup and parallel a MFP unit with the NCPA Dispatch Center's concurrence or at the NCPA Dispatch Center's direction, based on the daily schedule.
- b. Customer Operators will notify the NCPA Dispatch Center after the unit has been paralleled and brought to the scheduled output.
- c. Customer operators will separate units at the NCPA Dispatch Center's direction and report after unit is separated.

Section 5. Abnormal and Emergency Operations

5.1 During grid system reliability issues or safety issues, the NCPA Dispatch Center will take necessary actions, as well as issue directives to Customer Operators to carry out unit the emergency is resolved.

5.2 When other abnormal or emergency conditions occur at MFP facilities, the NCPA Dispatch Center will notify Customer's operators who will respond and investigate the condition(s).

5.3 When Customer's Operators trip/separate units in an emergency, they will report immediately to the NCPA Dispatch Center.

Section 6. Recreation Event Operations

When **Customer** elects to support recreation events that can be affected by **MFP** flows, scheduling requests will be submitted to **the NCPA Dispatch Center**.

Primary contact and event coordination will be the responsibility of **Customer**.

On event days (such as Tevis Cup or Western States Trail races), **Customer** will designate a Hydro Roving Operator to work with **the NCPA Dispatch Center** to insure coordination during the event.

Customer will submit AFW with the sequence of the recreation event to **the NCPA Dispatch Center**.

Section 7. Maintenance Activities at MFP Facilities

7.1 The Customer Hydro Roving Operator will keep the NCPA Dispatch Center informed of daily maintenance activities at MFP facilities that could affect MFP generation or water conveyance facilities.

7.2 Customer agrees to use _____ to communicate notifications that could affect MFP generation or water conveyance facilities, and requests for clearances.

Section 8. Planned Outage Scheduling for MFP Facilities

8.1 Customer Hydro O&M personnel will submit outage requests to Customer's Power Scheduling Manager. Upon approval, Customer's Power Scheduling Manager will submit an Outage Notification Request to the NCPA Dispatch Center. The NCPA Dispatch Center will coordinate the scheduling of the outage with the Transmission Operator and CAISO.

8.2 In parallel, following outage approval by the NCPA Dispatch Center and CAISO, Customer's Operators will also fill out a _____ form with outage notification details and/or to request a clearance for the outage.

8.3 Outage Request Timelines.

8.3.1 Generator scheduled outage minimum processing time requires 9 calendar days; 2 calendar days for PCWEA to process, and 7 calendar days for PG&E.

8.3.2 Middle Fork Main Transformer outage minimum processing time requires 37 calendar days. The 60kV tertiary winding of the transformer is the intersection of the French Meadows – Middle Fork and Middle Fork – Weimar Junction 60kV transmission lines, and is considered to be under the jurisdiction of **PG&E's Grid Control Center (GCC)**. The GCC requires a minimum of 30 days' notice to process a transmission line outage request.

Section 9. Clearances at MFP Facilities and PG&E 60kV and 230 kV Transmission

To insure safety of personnel, and protection of both PG&E and Customer facilities, Joint Clearances shall be established at designated clearance points such that both entities shall lock and tag the joint clearance point. The following disconnect switches and circuit breakers will be joint clearance points:

- Hell Hole Unit, 60/12KV Transformer, CB 1202/2, or 12kV System: SW 75 to the end.
- French Meadows Unit: SW 13 to the end.
- Middle Fork Main Transformer Bank: SW 213, 215, 21 (or 23), 31 (or 33).
- Middle Fork CB 212: SW 211, 213.
- Middle Fork CB 22: SW 21, 23.
- Middle Fork CB 32: SW 31, 33.
- Ralston Unit: SW 223 to the end.
- Ralston Station Service Transformer: SW 25 to the end.
- Oxbow Unit: SW 43 to the end.
- Oxbow Station Service Transformer: SW 35 to the end.
- French Meadows – Middle Fork 60kV Line: SW 23, SW 35, SW 13, SW 75.
- Middle Fork – Weimar Junction 60kV Line: SW 33, SW 35, Middle Fork Powerhouse Station Service Switchgear CB 52-3 (SS XFMR No. 3), SW 25.
- Middle Fork – Gold Hill 230kV Line: SW 215, SW 213, SW 223.

Section 10. Minimum Flow Requirements and Ramping Requirements

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