Appendix U - Attachment 1

Appendix U1 Power Model Documentation

This Attachment describes the power model assumptions, methods, and models used for the Re-initiation of Consultation on long-term operations of the Central Valley Project (CVP) and State Water Project (SWP) (ROC on LTO). This Attachment also provides model results processing and interpretation methods used for the impacts analysis and descriptions.

U1.1 Power Modeling Methodology & Assumptions

Energy generation can be quantified by estimating hydropower generation, at a monthly level, over a sequence of years representing varying hydrologic conditions. This kind of analysis is based on input hydrology and reservoir operations information. Energy generation capability will be based on the reservoir storage and flow through the turbines. Energy consumption will be based on pumping requirements to meet the operating criteria. These inputs are fed into two spreadsheet-based models, Long-Term Generation (LTGen) and SWP Power, which compute energy generation at each CVP and SWP pumping facility through a series of computations.

U1.1.1 Power Models

LTGEN and SWP_Power are two commonly used, publicly available models developed by Reclamation and DWR. These models calculate a facility's long-term power generation capacity and pumping energy consumption for CVP and SWP facilities (Reclamation 2015). To calculate long-term power generation, the models use reservoir storage and release data from the CalSim II model along with user-specified generation characteristics, such as the number of units and transmission loss, to calculate a monthly average energy generation at all CVP and SWP reservoirs with power plants.

The models compute energy generation requirements using flow and storage data from CalSim II and user- specified characteristics, such as percentage of on-peak and off-peak pumping and transmission losses to calculate the monthly average energy consumption of all CVP and SWP pumping plants under the assumed CalSim II scenarios. Flows and storages from the entire CalSim II simulation period (October 1921 to September 2003) are used as inputs to the models. Climate change and sea level rise are inherently represented through CalSim II outputs.

Metrics for quantifying hydropower generation are displayed in terms of energy units generated (such as megawatts). Calculating energy generation annually, monthly, and by water year type can help in evaluating the overall hydropower performance under a variety of energy demand and hydrologic conditions.

For this analysis, the energy capacity, energy generation, energy use, and net energy generation of CVP and SWP facilities for No Action Alternative and four proposed action alternatives are compared against each other using exceedance tables, exceedance charts, and monthly pattern charts. Using LTGen and SWP_Power, the following parameters have been computed for each CVP and SWP facility:

- Facility Capacity (megawatts; MW)
- Energy Generation (gigawatt hours; GWh)
- Energy Use (gigawatt hours; GWh)

- Net Energy Generation (gigawatt hours; GWh)

U1.1.2 Energy Generation Calculations

Energy generation is computed using empirical energy factors provided by the Western Area Power Authority (WAPA) for CVP facilities and by the DWR Operations Control Office (OCO) for SWP facilities. Energy generation can be calculated using Equation 1.

$$\text{Energy\_Generation } (MWh) = Energy\_Factor_G * Q\frac{ft^3}{s} \quad \text{Eq. 1}$$

U1.1.3 Average Monthly Power Capacity Calculations

Energy generation is limited on a monthly basis by an average power capacity at each facility. Power capacity fluctuates with varying reservoir levels and scheduled water releases. Generally, power production is higher during summer months when reservoir levels are higher and water is released to satisfy delivery requirements.

For CVP facilities, average monthly power capacity is estimated using empirical equations provided by WAPA. For SWP facilities, average monthly power capacity is computed using Equation 2, where the peak capacity is assumed to be a function of total head and average power plant flow.

$$\text{Power\_Capacity } (MW) = 0.7457\,\frac{kW}{hp} * 62.4\,\frac{lbs}{ft^3} * \frac{1MW}{1{,}000kW} * \frac{1hp}{550\frac{lb*ft}{s}} * \frac{1}{\eta} * head(ft) * Avg.powerplant\_flot\_rate\left(\frac{ft^3}{s}\right) \quad \text{Eq. 2}$$

U1.1.4 Energy Use Calculations

Energy use is computed using empirical energy factors provided by WAPA for CVP facilities and by the OCO for SWP facilities. Energy use can be calculated using Equation 3.

$$\text{Energy\_Use } (MWh) = Energy\_Factor_U * Q\frac{ft^3}{s} \quad \text{Eq. 3}$$

In addition, the power models determine whether user-specified off-peak energy use targets can be satisfied under given power and flow capacity limits. Moreover, the tools determine the feasibility of requiring a certain percentage of pumping energy use to occur during off-peak hours for a particular month.

U1.1.5 Transmission Losses

Transmission losses are estimated to determine energy use and generation at load centers, as percentages of energy use or generation.

U1.1.6 Assumption Tables

Tables U-1.1 and U-1.2 show the assumptions used to estimate energy use and transmission losses at CVP and SWP pumping facilities. Tables U-1.3 and U-1.4 show the assumptions used to estimate energy generation, power capacity, and transmission losses at CVP and SWP generation facilities.

Table U-1.1. Central Valley Project Pumping Plant Characteristics.

Jones Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5	237.5
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	16	16	16	16	16	16	16	16	16	16	16	16
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%	42.9%
On Peak Cap Adj Factor	1.05	1.05	1.05	1.50	1.20	2.20	1.60	2.30	1.50	1.05	1.05	1.05
Off Peak Cap Adj Factor	1.05	1.05	1.05	1.50	1.20	2.20	1.60	2.30	1.50	1.05	1.05	1.05

CVP Banks Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	297	297	297	297	297	297	297	297	297	297	297	297
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	53.7%	53.7%	53.7%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	53.7%	53.7%	53.7%
On Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Off Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

Contra Costa Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8	164.8
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Transmission Loss (%)	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	1.20	1.20	1.20	1.20	2.00	2.00
Off Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	1.20	1.20	1.20	1.20	2.00	2.00

O'Neill Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2	59.2
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%	48.5%
On Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Off Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00

CVP San Luis Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	function	function	function	function	function	function	function	function	function	function	function	function
# Units	8	8	8	8	8	8	8	8	8	8	8	8
Capacity/Unit (MW)	function	function	function	function	function	function	function	function	function	function	function	function
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%
On Peak Cap Adj Factor	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Off Peak Cap Adj Factor	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50

San Felipe Pumping Plant (Pacheco)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	function	function	function	function	function	function	function	function	function	function	function	function
# Units	12	12	12	12	12	12	12	12	12	12	12	12
Capacity/Unit (MW)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	2.00	2.00	2.00	1.50	1.50	1.50	1.50	1.20	1.20	1.20	1.20	1.20
Off Peak Cap Adj Factor	2.00	2.00	2.00	1.50	1.50	1.50	1.50	1.20	1.20	1.20	1.20	1.20

CVP Dos Amigos Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	56.6%	56.6%	56.6%	76.6%
On Peak Cap Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Off Peak Cap Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Folsom Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	function	function	function	function	function	function	function	function	function	function	function	function
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	5	5	5	5	5	5	5	5	5	5	5	5
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Off Peak Cap Adj Factor	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50

Table U-1.1. Central Valley Project Pumping Plant Characteristics (cont.).

Corning Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	190	190	190	190	190	190	190	190	190	190	190	190
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	3.00	4.00	4.00	4.00	4.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00
Off Peak Cap Adj Factor	3.00	4.00	4.00	4.00	4.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00

Red Bluff Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	12	12	12	12	12	12	0	0	0	0	0	12
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Off Peak Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

San Luis Other												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5	93.5
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	1.50	1.50	1.50	1.50	1.50	2.00
Off Peak Cap Adj Factor	2.00	2.00	2.00	2.00	2.00	2.00	1.50	1.50	1.50	1.50	1.50	2.00

DMC Other												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	3.00	3.00	3.00	3.00	2.50	2.00	2.00	1.50	1.50	1.50	1.50	1.50
Off Peak Cap Adj Factor	3.00	3.00	3.00	3.00	2.50	2.00	2.00	1.50	1.50	1.50	1.50	1.50

Tehama Other												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2	43.2
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	2.00	3.00	3.00	3.00	3.00	3.00	1.50	1.50	1.50	1.50	1.50	1.50
Off Peak Cap Adj Factor	2.00	3.00	3.00	3.00	3.00	3.00	1.50	1.50	1.50	1.50	1.50	1.50

Miscellaneous Project Use												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
MW	7	5	6	6	9	11	4	5	15	23	33	9
Transmission Loss (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GWH	5.1	3.4	4.6	4.5	6.1	8.5	2.5	3.7	10.6	16.8	24.8	6.2
Percent Eng Off Peak (%)	59.1%	61.6%	67.3%	64.3%	62.0%	59.0%	52.2%	52.9%	49.1%	50.3%	49.8%	61.3%

DMC Intertie												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
# Units	8	8	8	8	8	8	8	8	8	8	8	8
Capacity/Unit (MW)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
On Peak Cap Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Off Peak Cap Adj Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table U-1.2. State Water Project Pumping Plant Characteristics

Banks Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	297	297	297	297	297	297	297	297	297	297	297	297
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	53.7%	53.7%	53.7%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	53.7%	53.7%	53.7%

SWP San Luis Pumping Plant (Gianelli Pumping Plant)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	function	function	function	function	function	function	function	function	function	function	function	function
# Units	8	8	8	8	8	8	8	8	8	8	8	8
Capacity/Unit (MW)	function	function	function	function	function	function	function	function	function	function	function	function
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%	89.7%

Dos Amigos Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9	137.9
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Percent Eng Off Peak (%)	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	76.6%	56.6%	56.6%	56.6%	76.6%

Buena Vista Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	242	242	242	242	242	242	242	242	242	242	242	242
Plant Power Rating (MW)	107.797	107.797	107.797	107.797	107.797	107.797	107.797	107.797	107.797	107.797	107.797	107.797
Transmission Loss (%)	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Teerink (Wheeler Ridge) Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	295	295	295	295	295	295	295	295	295	295	295	295
Plant Power Rating (MW)	111.9	111.9	111.9	111.9	111.9	111.9	111.9	111.9	111.9	111.9	111.9	111.9
Transmission Loss (%)	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Chrisman (Wind Gap) Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	639	639	639	639	639	639	639	639	639	639	639	639
Plant Power Rating (MW)	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18	246.18
Transmission Loss (%)	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%	1.51%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Edmonson Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	2,236	2,236	2,236	2,236	2,236	2,236	2,236	2,236	2,236	2,236	2,236	2,236
Plant Power Rating (MW)	775.84	775.84	775.84	775.84	775.84	775.84	775.84	775.84	775.84	775.84	775.84	775.84
Transmission Loss (%)	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%	1.64%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Pearblossom Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	703	703	703	703	703	703	703	703	703	703	703	703
Plant Power Rating (MW)	151.588	151.588	151.588	151.588	151.588	151.588	151.588	151.588	151.588	151.588	151.588	151.588
Transmission Loss (%)	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Oso Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	280	280	280	280	280	280	280	280	280	280	280	280
Plant Power Rating (MW)	69.975	69.975	69.975	69.975	69.975	69.975	69.975	69.975	69.975	69.975	69.975	69.975
Transmission Loss (%)	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%	2.34%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

South Bay Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	797	797	797	797	797	797	797	797	797	797	797	797
Plant Power Rating (MW)	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69	20.69
Transmission Loss (%)	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%	2.3%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Del Valle Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	72	72	72	72	72	72	72	72	72	72	72	72
Plant Power Rating (MW)	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746	0.746
Transmission Loss (%)	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Table U-1.2. State Water Project Pumping Plant Characteristics (cont.).

Las Perillas Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	77	77	77	77	77	77	77	77	77	77	77	77
Plant Power Rating (MW)	3.021	3.021	3.021	3.021	3.021	3.021	3.021	3.021	3.021	3.021	3.021	3.021
Transmission Loss (%)	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Badger Hill Pumping Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	200	200	200	200	200	200	200	200	200	200	200	200
Plant Power Rating (MW)	8.766	8.766	8.766	8.766	8.766	8.766	8.766	8.766	8.766	8.766	8.766	8.766
Transmission Loss (%)	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%	1.32%
Percent Eng Off Peak (%)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Table U-1.3. Central Valley Project Powerplant Characteristics.

Trinity Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	2	2	2	2	2	2	2	2	2	2	2	2
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Lewiston Powerplant - Baseload Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	0	0	0	0	0	0	0	0	0	0	0	0
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Carr Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	2	2	2	2	2	2	2	2	2	2	2	2
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Spring Creek Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	2	2	2	2	2	2	2	2	2	2	2	2
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Shasta Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	5	5	5	5	5	5	5	5	5	5	5	5
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Keswick Powerplant - Baseload Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	3	3	3	3	3	3	3	3	3	3	3	3
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Folsom Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	3	3	3	3	3	3	3	3	3	3	3	3
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Nimbus Powerplant - Baseload Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	2	2	2	2	2	2	2	2	2	2	2	2
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

New Melones Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	2	2	2	2	2	2	2	2	2	2	2	2
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

CVP San Luis Powerplant - Peaking Operation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	8	8	8	8	8	8	8	8	8	8	8	8
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Share of Total Cap (%)	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%

O'Neill Powerplant - Baseload Operation, flow computation												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	6	6	6	6	6	6	6	6	6	6	6	6
Capacity/Unit (MW)	3	3	3	3	3	3	3	3	3	3	3	3
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Table U-1.4. State Water Project Powerplant Characteristics.

Hyatt (Lake Oroville) Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Maximum Flow Capacity (cfs)	16,950	16,950	16,950	16,950	16,950	16,950	16,950	16,950	16,950	16,950	16,950	16,950
Plant Power Rating (MW)	812	812	812	812	812	812	812	812	812	812	812	812
Plant Efficiency	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

Thermalito Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Maximum Flow Capacity (cfs)	17,400	17,400	17,400	17,400	17,400	17,400	17,400	17,400	17,400	17,400	17,400	17,400
Plant Power Rating (MW)	120	120	120	120	120	120	120	120	120	120	120	120
Plant Efficiency	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%	87.3%
Transmission Loss (%)	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%

SWP San Luis (Gianelli Power Plant)												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Capacity/Unit (MW)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
# Units	8	8	8	8	8	8	8	8	8	8	8	8
Share of Total Cap (%)	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%	52.9%
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

Alamo Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	105	105	105	105	105	105	105	105	105	105	105	105
Maximum Flow Capacity (cfs)	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740
Plant Power Rating (MW)	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
Plant Efficiency	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%	80.1%
Transmission Loss (%)	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%

Mojave Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	95	95	95	95	95	95	95	95	95	95	95	95
Maximum Flow Capacity (cfs)	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880	2,880
Plant Power Rating (MW)	32.90	32.90	32.90	32.90	32.90	32.90	32.90	32.90	32.90	32.90	32.90	32.90
Plant Efficiency	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%	84.00%
Transmission Loss (%)	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%	5.93%

Devil's Canyon Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113	1,113
Maximum Flow Capacity (cfs)	2,940	2,940	2,940	2,940	2,940	2,940	2,940	2,940	2,940	2,940	2,940	2,940
Plant Power Rating (MW)	357.90	357.90	357.90	357.90	357.90	357.90	357.90	357.90	357.90	357.90	357.90	357.90
Plant Efficiency	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%	82.03%
Transmission Loss (%)	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%	2.23%

W. E. Warne Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	573	573	573	573	573	573	573	573	573	573	573	573
Maximum Flow Capacity (cfs)	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564	1,564
Plant Power Rating (MW)	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2	78.2
Plant Efficiency	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%	81.4%
Transmission Loss (%)	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%

Castaic Power Plant												
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Energy Factor (kWh/af)	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function	Function
Maximum Flow Capacity (cfs)	17,840	17,840	17,840	17,840	17,840	17,840	17,840	17,840	17,840	17,840	17,840	17,840
Plant Power Rating (MW)	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
Plant Efficiency	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%	88.4%
Transmission Loss (%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%

U1.2 References

U.S. Department of the Interior, Bureau of Reclamation (Reclamation). 2015. Final Environmental Impact Statement for the Coordinated Long-term Operation of the Central Valley Project and the State Water Project, Appendix 8A: Power Model Documentation.

The following results of the LTGen and SWP Power models are included for energy capacity, energy generation, and energy use at key project locations for the following alternatives:

- No Action Alternative 011319
- Alternative 1 011519
- Alternative 2 021719
- Alternative 3 021719
- Alternative 4 043019

Title	Model Parameter	Table Numbers	Figure Numbers
CVP Total Capacity	CVP_TOTAL	1-1 to 1-4	1-1 to 1-18
CVP Total Generation	CVP_TOTAL	2-1 to 2-4	2-1 to 2-18
CVP Total Energy Use	CVP_TOTAL	3-1 to 3-4	3-1 to 3-18
CVP Net Generation	CVP_TOTAL	4-1 to 4-4	4-1 to 4-18
SWP Total Capacity	SWP_TOTAL	5-1 to 5-4	5-1 to 5-18
SWP Total Generation	SWP_TOTAL	6-1 to 6-4	6-1 to 6-18
SWP Total Energy Use	SWP_TOTAL	7-1 to 7-4	7-1 to 7-18
SWP Net Generation	SWP_TOTAL	8-1 to 8-4	8-1 to 8-18
CVP and SWP Net Generation	CVP_SWP_TOTAL	9-1 to 9-4	9-1 to 9-18

U1.3 Report Formats

- Exceedance tables comparing power modeling results of two scenarios
- Monthly pattern charts including all scenarios
- Monthly exceedance charts including all scenarios

Table 1-1. CVP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,683	1,741	1,814	1,858	1,881	1,908	1,869	1,853	1,794	1,758	1,677	1,654
20%	1,635	1,713	1,777	1,828	1,858	1,881	1,839	1,816	1,730	1,700	1,633	1,616
30%	1,597	1,674	1,735	1,798	1,836	1,843	1,820	1,783	1,668	1,628	1,571	1,590
40%	1,575	1,629	1,706	1,773	1,810	1,814	1,793	1,744	1,631	1,580	1,540	1,563
50%	1,549	1,601	1,676	1,737	1,781	1,792	1,759	1,710	1,609	1,554	1,516	1,519
60%	1,517	1,555	1,639	1,713	1,751	1,761	1,730	1,666	1,563	1,494	1,473	1,470
70%	1,450	1,507	1,591	1,670	1,724	1,730	1,695	1,633	1,521	1,448	1,427	1,428
80%	1,389	1,436	1,525	1,599	1,654	1,663	1,652	1,587	1,450	1,364	1,348	1,358
90%	1,168	1,268	1,390	1,483	1,512	1,511	1,468	1,426	1,259	1,128	1,107	1,148
Long Term												
Full Simulation Period[a]	1,482	1,543	1,619	1,690	1,729	1,744	1,711	1,660	1,554	1,485	1,445	1,444
Water Year Types[b,c]												
Wet (32%)	1,627	1,677	1,738	1,828	1,864	1,884	1,858	1,838	1,757	1,721	1,644	1,629
Above Normal (16%)	1,560	1,605	1,668	1,767	1,811	1,818	1,794	1,745	1,630	1,588	1,541	1,540
Below Normal (13%)	1,519	1,571	1,651	1,717	1,755	1,768	1,733	1,669	1,563	1,494	1,481	1,483
Dry (24%)	1,486	1,548	1,632	1,641	1,690	1,716	1,687	1,618	1,510	1,434	1,420	1,434
Critical (15%)	1,043	1,148	1,257	1,365	1,388	1,382	1,324	1,244	1,098	937	918	923

Alternative 1 011519

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,719	1,785	1,831	1,862	1,899	1,929	1,915	1,876	1,801	1,748	1,723	1,709
20%	1,702	1,750	1,806	1,841	1,879	1,909	1,896	1,846	1,739	1,684	1,672	1,676
30%	1,665	1,726	1,766	1,820	1,854	1,886	1,862	1,807	1,696	1,645	1,619	1,639
40%	1,638	1,706	1,747	1,801	1,837	1,861	1,836	1,778	1,652	1,594	1,595	1,597
50%	1,612	1,653	1,711	1,785	1,824	1,833	1,806	1,738	1,624	1,554	1,537	1,550
60%	1,580	1,615	1,672	1,745	1,791	1,813	1,788	1,714	1,597	1,526	1,499	1,518
70%	1,506	1,541	1,642	1,705	1,751	1,773	1,739	1,684	1,573	1,494	1,469	1,485
80%	1,455	1,488	1,563	1,657	1,700	1,720	1,689	1,622	1,513	1,435	1,411	1,423
90%	1,166	1,326	1,434	1,569	1,549	1,541	1,543	1,479	1,282	1,146	1,147	1,141
Long Term												
Full Simulation Period[a]	1,544	1,599	1,664	1,727	1,767	1,791	1,762	1,702	1,586	1,512	1,494	1,501
Water Year Types[b,c]												
Wet (32%)	1,709	1,752	1,782	1,829	1,869	1,904	1,890	1,854	1,763	1,708	1,686	1,684
Above Normal (16%)	1,609	1,641	1,692	1,789	1,827	1,846	1,829	1,771	1,644	1,580	1,572	1,571
Below Normal (13%)	1,534	1,578	1,660	1,766	1,803	1,818	1,775	1,713	1,599	1,526	1,495	1,499
Dry (24%)	1,542	1,597	1,675	1,694	1,744	1,779	1,752	1,675	1,568	1,483	1,468	1,485
Critical (15%)	1,131	1,243	1,367	1,456	1,490	1,483	1,420	1,329	1,159	1,052	1,036	1,058

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	36	43	17	4	17	21	46	22	7	**-11**	46	55
20%	67	37	29	13	21	28	57	30	9	**-15**	40	60
30%	68	52	31	22	19	43	42	25	28	17	47	48
40%	63	77	42	29	27	47	43	33	21	14	55	33
50%	63	52	35	48	44	40	47	28	15	**-1**	21	32
60%	62	60	33	32	40	52	58	47	34	31	26	48
70%	56	34	51	35	27	42	44	51	53	46	41	56
80%	66	53	37	58	47	58	37	35	63	71	63	65
90%	**-2**	58	44	86	36	30	76	53	24	17	40	**-7**
Long Term												
Full Simulation Period[a]	62	56	46	36	39	48	51	41	32	27	49	57
Water Year Types[b,c]												
Wet (32%)	82	75	44	1	5	20	32	16	6	**-13**	42	55
Above Normal (16%)	49	35	24	22	16	29	34	26	15	**-8**	31	30
Below Normal (13%)	15	7	9	49	48	51	42	44	35	32	14	15
Dry (24%)	55	49	43	53	54	63	66	57	57	49	47	51
Critical (15%)	88	95	110	91	101	100	95	85	61	114	118	135

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 1-2. CVP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,683	1,741	1,814	1,858	1,881	1,908	1,869	1,853	1,794	1,758	1,677	1,654
20%	1,635	1,713	1,777	1,828	1,858	1,881	1,839	1,816	1,730	1,700	1,633	1,616
30%	1,597	1,674	1,735	1,798	1,836	1,843	1,820	1,783	1,668	1,628	1,571	1,590
40%	1,575	1,629	1,706	1,773	1,810	1,814	1,793	1,744	1,631	1,580	1,540	1,563
50%	1,549	1,601	1,676	1,737	1,781	1,792	1,759	1,710	1,609	1,554	1,516	1,519
60%	1,517	1,555	1,639	1,713	1,751	1,761	1,730	1,666	1,563	1,494	1,473	1,470
70%	1,450	1,507	1,591	1,670	1,724	1,730	1,695	1,633	1,521	1,448	1,427	1,428
80%	1,389	1,436	1,525	1,599	1,654	1,663	1,652	1,587	1,450	1,364	1,348	1,358
90%	1,168	1,268	1,390	1,483	1,512	1,511	1,468	1,426	1,259	1,128	1,107	1,148
Long Term												
Full Simulation Period[a]	1,482	1,543	1,619	1,690	1,729	1,744	1,711	1,660	1,554	1,485	1,445	1,444
Water Year Types[b,c]												
Wet (32%)	1,627	1,677	1,738	1,828	1,864	1,884	1,858	1,838	1,757	1,721	1,644	1,629
Above Normal (16%)	1,560	1,605	1,668	1,767	1,811	1,818	1,794	1,745	1,630	1,588	1,541	1,540
Below Normal (13%)	1,519	1,571	1,651	1,717	1,755	1,768	1,733	1,669	1,563	1,494	1,481	1,483
Dry (24%)	1,486	1,548	1,632	1,641	1,690	1,716	1,687	1,618	1,510	1,434	1,420	1,434
Critical (15%)	1,043	1,148	1,257	1,365	1,388	1,382	1,324	1,244	1,098	937	918	923

Alternative 2 021719

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,796	1,834	1,870	1,900	1,919	1,958	1,949	1,923	1,853	1,797	1,779	1,768
20%	1,743	1,809	1,849	1,883	1,907	1,937	1,931	1,884	1,779	1,699	1,687	1,705
30%	1,698	1,778	1,833	1,868	1,898	1,926	1,921	1,830	1,726	1,644	1,630	1,670
40%	1,653	1,746	1,800	1,850	1,889	1,912	1,885	1,797	1,679	1,613	1,606	1,585
50%	1,621	1,702	1,769	1,825	1,871	1,888	1,858	1,766	1,646	1,580	1,563	1,545
60%	1,560	1,632	1,725	1,784	1,827	1,854	1,816	1,727	1,607	1,541	1,501	1,504
70%	1,503	1,544	1,647	1,726	1,781	1,817	1,783	1,680	1,571	1,480	1,456	1,457
80%	1,406	1,467	1,587	1,684	1,751	1,769	1,736	1,645	1,520	1,414	1,392	1,398
90%	1,267	1,363	1,451	1,558	1,572	1,579	1,558	1,466	1,342	1,225	1,182	1,215
Long Term												
Full Simulation Period[a]	1,559	1,627	1,703	1,763	1,804	1,829	1,801	1,722	1,607	1,528	1,502	1,502
Water Year Types[b,c]												
Wet (32%)	1,749	1,796	1,832	1,871	1,907	1,942	1,932	1,889	1,801	1,740	1,719	1,719
Above Normal (16%)	1,629	1,681	1,747	1,834	1,876	1,905	1,886	1,798	1,672	1,609	1,591	1,574
Below Normal (13%)	1,530	1,607	1,696	1,817	1,852	1,873	1,833	1,736	1,616	1,528	1,499	1,499
Dry (24%)	1,544	1,609	1,696	1,721	1,777	1,807	1,776	1,687	1,568	1,486	1,464	1,474
Critical (15%)	1,125	1,247	1,396	1,473	1,504	1,496	1,442	1,322	1,176	1,050	998	1,001

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	112	93	56	41	37	50	80	70	59	39	101	114
20%	108	95	72	54	49	56	92	68	50	0	55	89
30%	100	104	98	70	62	82	101	47	58	16	59	80
40%	78	116	94	77	78	98	91	52	47	34	65	21
50%	72	101	93	88	90	95	99	56	36	25	48	26
60%	43	77	86	71	76	93	86	61	43	47	29	34
70%	53	36	55	55	57	87	88	46	51	32	29	29
80%	17	31	62	85	98	107	84	58	70	50	44	40
90%	99	96	61	75	59	69	90	40	84	97	75	67
Long Term												
Full Simulation Period[a]	77	84	84	73	75	85	90	61	53	43	57	57
Water Year Types[b,c]												
Wet (32%)	122	119	94	43	43	57	73	51	44	19	75	90
Above Normal (16%)	69	75	79	67	65	87	92	52	42	21	50	34
Below Normal (13%)	11	36	46	100	98	105	100	67	52	34	19	16
Dry (24%)	58	61	64	80	87	91	89	69	58	52	44	40
Critical (15%)	81	99	139	107	115	114	117	78	78	113	79	78

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 1-3. CVP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,683	1,741	1,814	1,858	1,881	1,908	1,869	1,853	1,794	1,758	1,677	1,654
20%	1,635	1,713	1,777	1,828	1,858	1,881	1,839	1,816	1,730	1,700	1,633	1,616
30%	1,597	1,674	1,735	1,798	1,836	1,843	1,820	1,783	1,668	1,628	1,571	1,590
40%	1,575	1,629	1,706	1,773	1,810	1,814	1,793	1,744	1,631	1,580	1,540	1,563
50%	1,549	1,601	1,676	1,737	1,781	1,792	1,759	1,710	1,609	1,554	1,516	1,519
60%	1,517	1,555	1,639	1,713	1,751	1,761	1,730	1,666	1,563	1,494	1,473	1,470
70%	1,450	1,507	1,591	1,670	1,724	1,730	1,695	1,633	1,521	1,448	1,427	1,428
80%	1,389	1,436	1,525	1,599	1,654	1,663	1,652	1,587	1,450	1,364	1,348	1,358
90%	1,168	1,268	1,390	1,483	1,512	1,511	1,468	1,426	1,259	1,128	1,107	1,148
Long Term												
Full Simulation Period[a]	1,482	1,543	1,619	1,690	1,729	1,744	1,711	1,660	1,554	1,485	1,445	1,444
Water Year Types[b,c]												
Wet (32%)	1,627	1,677	1,738	1,828	1,864	1,884	1,858	1,838	1,757	1,721	1,644	1,629
Above Normal (16%)	1,560	1,605	1,668	1,767	1,811	1,818	1,794	1,745	1,630	1,588	1,541	1,540
Below Normal (13%)	1,519	1,571	1,651	1,717	1,755	1,768	1,733	1,669	1,563	1,494	1,481	1,483
Dry (24%)	1,486	1,548	1,632	1,641	1,690	1,716	1,687	1,618	1,510	1,434	1,420	1,434
Critical (15%)	1,043	1,148	1,257	1,365	1,388	1,382	1,324	1,244	1,098	937	918	923

Alternative 3 021719

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,793	1,829	1,872	1,900	1,919	1,957	1,948	1,923	1,852	1,791	1,778	1,766
20%	1,741	1,809	1,849	1,885	1,907	1,937	1,929	1,882	1,781	1,695	1,696	1,707
30%	1,702	1,778	1,832	1,868	1,897	1,928	1,919	1,843	1,728	1,651	1,646	1,670
40%	1,667	1,746	1,799	1,850	1,887	1,906	1,883	1,799	1,679	1,610	1,598	1,594
50%	1,611	1,699	1,771	1,823	1,866	1,887	1,855	1,767	1,646	1,583	1,553	1,548
60%	1,561	1,635	1,722	1,780	1,827	1,851	1,819	1,735	1,609	1,536	1,499	1,497
70%	1,492	1,546	1,651	1,722	1,781	1,816	1,783	1,683	1,577	1,476	1,459	1,457
80%	1,400	1,466	1,581	1,683	1,746	1,770	1,733	1,640	1,514	1,410	1,397	1,387
90%	1,247	1,355	1,444	1,556	1,576	1,578	1,552	1,452	1,343	1,225	1,191	1,153
Long Term												
Full Simulation Period[a]	1,556	1,625	1,701	1,761	1,803	1,827	1,800	1,721	1,605	1,526	1,499	1,498
Water Year Types[b,c]												
Wet (32%)	1,751	1,796	1,831	1,872	1,907	1,940	1,933	1,892	1,799	1,738	1,721	1,718
Above Normal (16%)	1,625	1,683	1,745	1,834	1,876	1,905	1,885	1,800	1,677	1,607	1,584	1,576
Below Normal (13%)	1,531	1,607	1,697	1,815	1,851	1,872	1,832	1,737	1,618	1,531	1,505	1,501
Dry (24%)	1,535	1,607	1,694	1,719	1,775	1,806	1,775	1,686	1,570	1,483	1,465	1,468
Critical (15%)	1,116	1,240	1,387	1,460	1,499	1,492	1,437	1,309	1,154	1,046	975	980

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	110	88	58	42	37	49	79	70	58	33	101	113
20%	105	95	73	57	49	56	90	66	51	-4	64	91
30%	105	104	97	70	61	85	99	60	61	23	74	79
40%	92	117	94	77	77	92	90	55	47	31	58	31
50%	62	98	95	85	86	95	96	57	37	29	38	29
60%	44	80	83	66	75	90	89	69	45	41	26	27
70%	42	39	59	52	57	86	87	50	57	28	32	28
80%	12	30	56	85	93	108	80	53	64	46	49	30
90%	79	87	54	73	63	67	85	26	84	97	84	5
Long Term												
Full Simulation Period[a]	74	82	82	70	74	84	89	61	51	41	54	53
Water Year Types[b,c]												
Wet (32%)	124	118	93	44	43	56	74	54	42	16	77	90
Above Normal (16%)	66	77	77	67	65	88	90	55	47	19	43	36
Below Normal (13%)	13	36	46	98	96	104	99	68	55	37	25	18
Dry (24%)	49	58	62	78	85	90	88	67	60	49	45	34
Critical (15%)	72	91	130	95	111	110	112	65	56	108	57	57

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 1-4. CVP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,683	1,741	1,814	1,858	1,881	1,908	1,869	1,853	1,794	1,758	1,677	1,654
20%	1,635	1,713	1,777	1,828	1,858	1,881	1,839	1,816	1,730	1,700	1,633	1,616
30%	1,597	1,674	1,735	1,798	1,836	1,843	1,820	1,783	1,668	1,628	1,571	1,590
40%	1,575	1,629	1,706	1,773	1,810	1,814	1,793	1,744	1,631	1,580	1,540	1,563
50%	1,549	1,601	1,676	1,737	1,781	1,792	1,759	1,710	1,609	1,554	1,516	1,519
60%	1,517	1,555	1,639	1,713	1,751	1,761	1,730	1,666	1,563	1,494	1,473	1,470
70%	1,450	1,507	1,591	1,670	1,724	1,730	1,695	1,633	1,521	1,448	1,427	1,428
80%	1,389	1,436	1,525	1,599	1,654	1,663	1,652	1,587	1,450	1,364	1,348	1,358
90%	1,168	1,268	1,390	1,483	1,512	1,511	1,468	1,426	1,259	1,128	1,107	1,148
Long Term												
Full Simulation Period[a]	1,482	1,543	1,619	1,690	1,729	1,744	1,711	1,660	1,554	1,485	1,445	1,444
Water Year Types[b,c]												
Wet (32%)	1,627	1,677	1,738	1,828	1,864	1,884	1,858	1,838	1,757	1,721	1,644	1,629
Above Normal (16%)	1,560	1,605	1,668	1,767	1,811	1,818	1,794	1,745	1,630	1,588	1,541	1,540
Below Normal (13%)	1,519	1,571	1,651	1,717	1,755	1,768	1,733	1,669	1,563	1,494	1,481	1,483
Dry (24%)	1,486	1,548	1,632	1,641	1,690	1,716	1,687	1,618	1,510	1,434	1,420	1,434
Critical (15%)	1,043	1,148	1,257	1,365	1,388	1,382	1,324	1,244	1,098	937	918	923

Alternative 4 043019

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,754	1,805	1,847	1,870	1,894	1,915	1,896	1,866	1,805	1,749	1,716	1,703
20%	1,708	1,770	1,822	1,853	1,867	1,895	1,863	1,832	1,738	1,690	1,688	1,673
30%	1,680	1,744	1,792	1,828	1,851	1,870	1,843	1,796	1,685	1,635	1,636	1,643
40%	1,641	1,716	1,757	1,808	1,836	1,849	1,821	1,773	1,666	1,605	1,592	1,604
50%	1,615	1,669	1,737	1,789	1,814	1,828	1,789	1,739	1,628	1,568	1,555	1,567
60%	1,589	1,634	1,704	1,769	1,788	1,797	1,766	1,695	1,595	1,526	1,514	1,526
70%	1,522	1,593	1,673	1,722	1,755	1,764	1,737	1,670	1,569	1,496	1,487	1,493
80%	1,468	1,508	1,581	1,662	1,689	1,717	1,671	1,616	1,539	1,447	1,428	1,448
90%	1,258	1,338	1,459	1,514	1,576	1,549	1,539	1,472	1,288	1,240	1,162	1,205
Long Term												
Full Simulation Period[a]	1,558	1,617	1,687	1,737	1,766	1,783	1,753	1,697	1,595	1,527	1,507	1,514
Water Year Types[b,c]												
Wet (32%)	1,712	1,758	1,796	1,842	1,870	1,895	1,876	1,845	1,763	1,713	1,693	1,684
Above Normal (16%)	1,626	1,663	1,724	1,808	1,833	1,842	1,813	1,771	1,650	1,599	1,584	1,585
Below Normal (13%)	1,555	1,615	1,693	1,771	1,793	1,802	1,774	1,713	1,607	1,528	1,516	1,524
Dry (24%)	1,554	1,614	1,692	1,697	1,734	1,760	1,730	1,659	1,567	1,484	1,473	1,493
Critical (15%)	1,159	1,270	1,397	1,470	1,498	1,497	1,443	1,347	1,206	1,116	1,067	1,094

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	71	64	33	12	13	7	27	12	11	-9	39	49
20%	73	57	45	24	9	14	24	16	9	-10	55	58
30%	82	70	57	29	16	27	23	13	17	7	64	53
40%	66	87	51	36	26	35	28	29	35	25	52	41
50%	66	68	61	52	34	36	30	29	19	13	39	49
60%	72	79	65	55	37	36	36	28	32	32	41	56
70%	72	85	82	52	30	33	42	37	49	48	60	65
80%	80	72	56	63	36	55	19	29	89	84	81	90
90%	90	70	69	30	63	38	72	47	30	112	55	57
Long Term												
Full Simulation Period[a]	76	75	68	47	37	40	42	37	41	42	62	69
Water Year Types[b,c]												
Wet (32%)	85	81	58	13	6	11	17	7	6	-8	49	55
Above Normal (16%)	66	58	56	41	22	25	19	26	20	11	44	45
Below Normal (13%)	36	44	42	54	38	34	41	43	44	34	35	41
Dry (24%)	68	65	60	56	44	44	44	40	56	51	52	59
Critical (15%)	116	122	140	105	110	114	119	103	108	178	149	171

a Based on the 82-year simulation period.

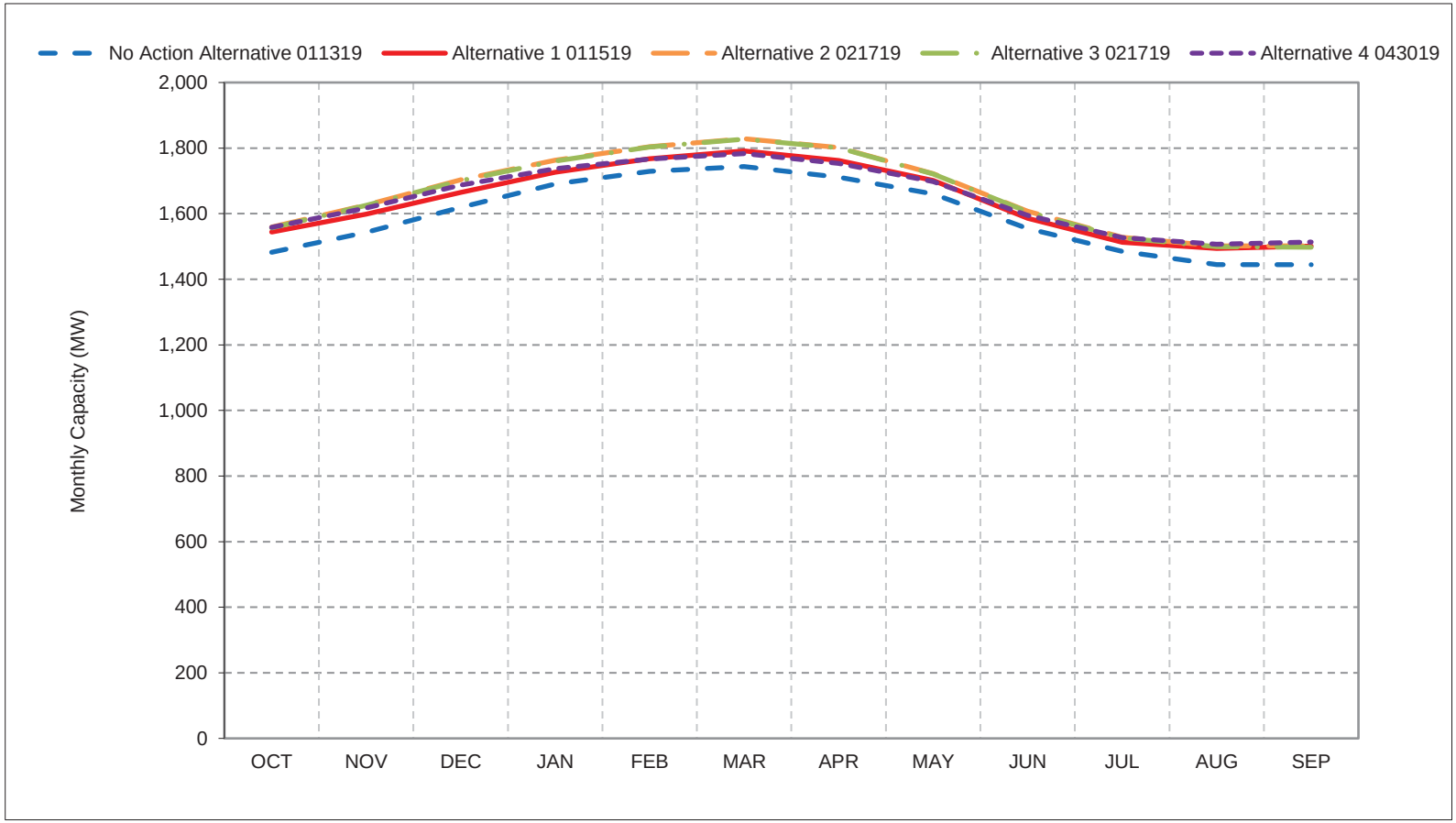
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

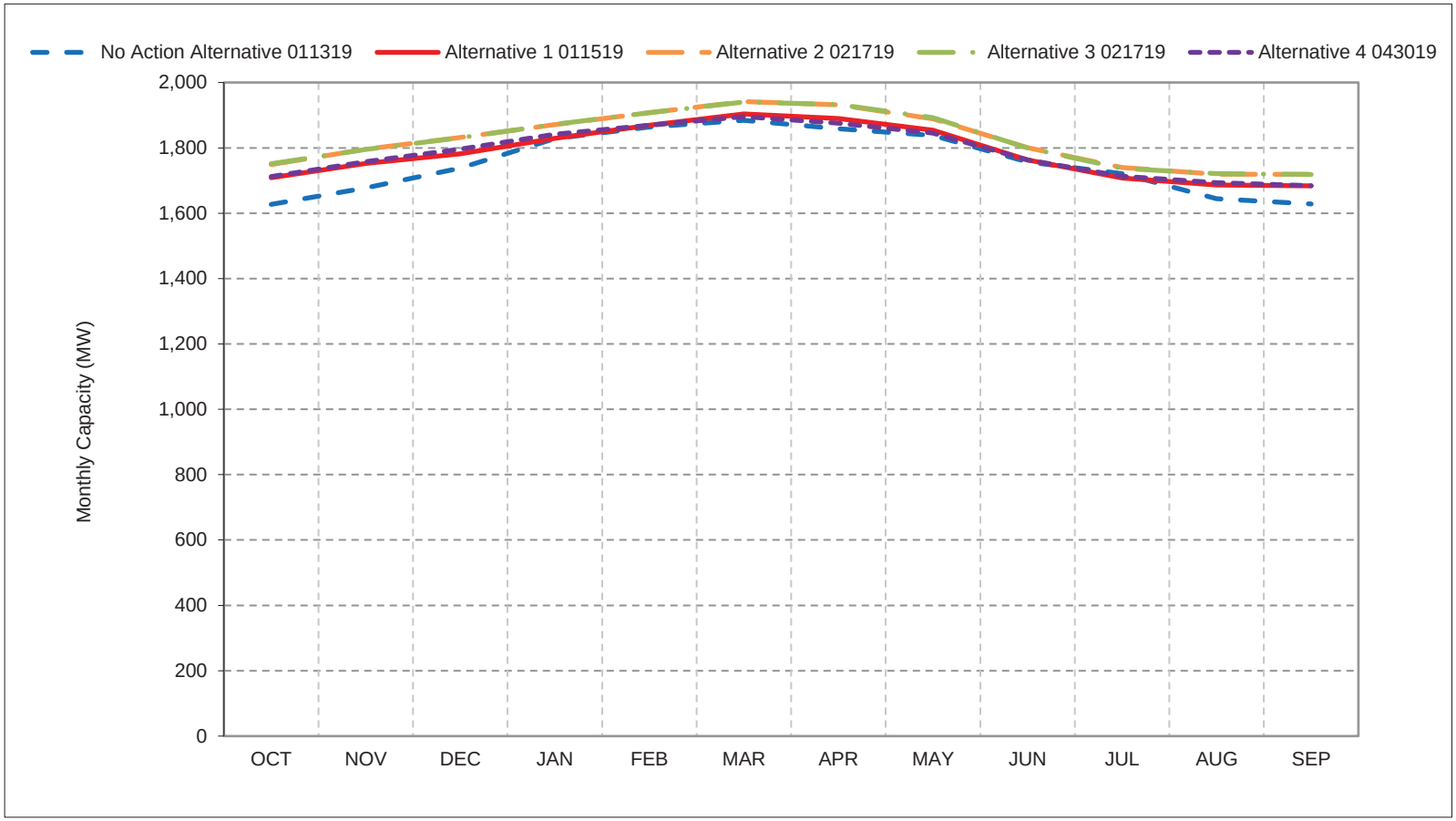
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-1. CVP Total Capacity, Long-Term Average Capacity



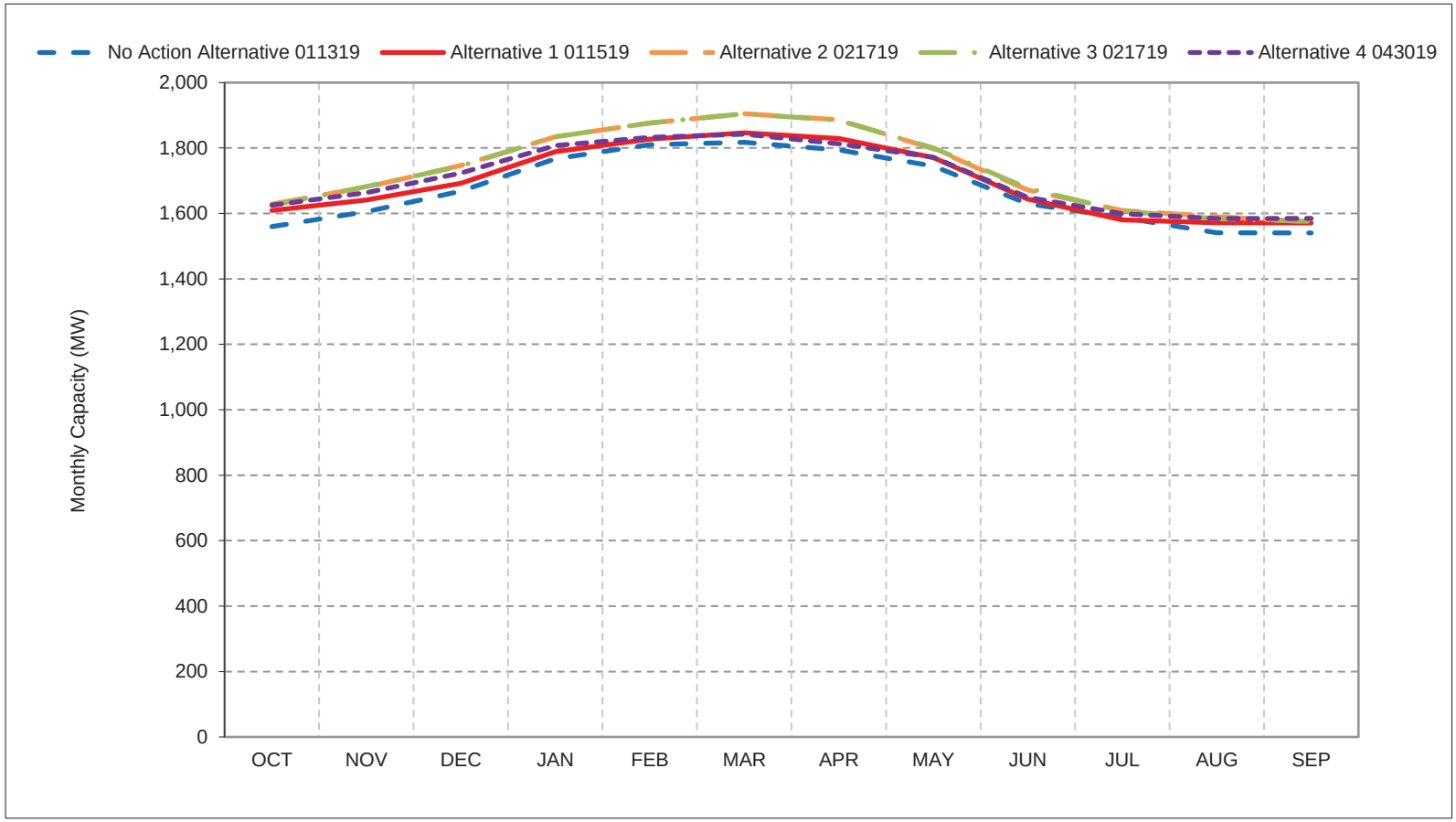
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-2. CVP Total Capacity, Wet Year Average Capacity



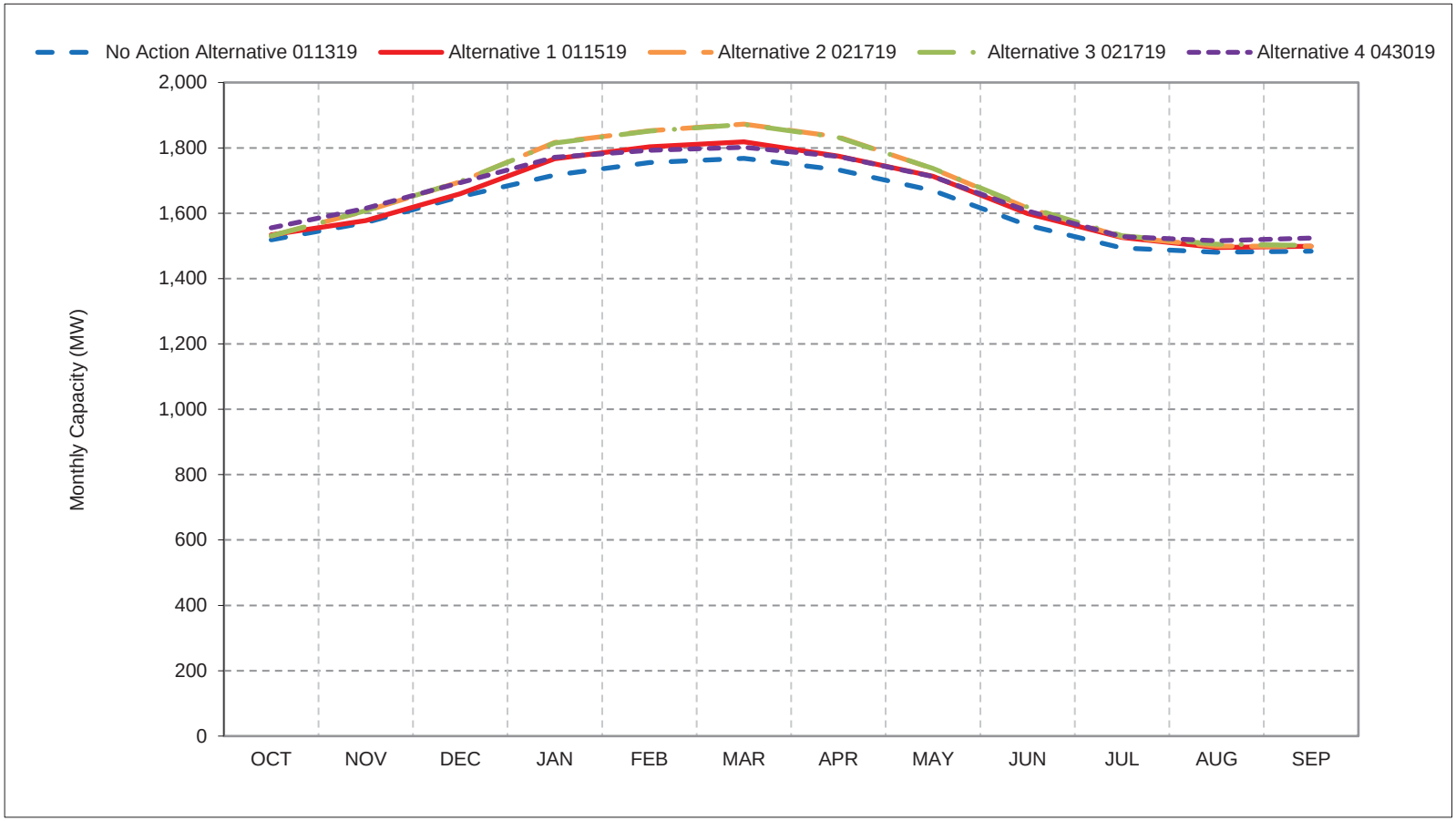
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-3. CVP Total Capacity, Above Normal Year Average Capacity



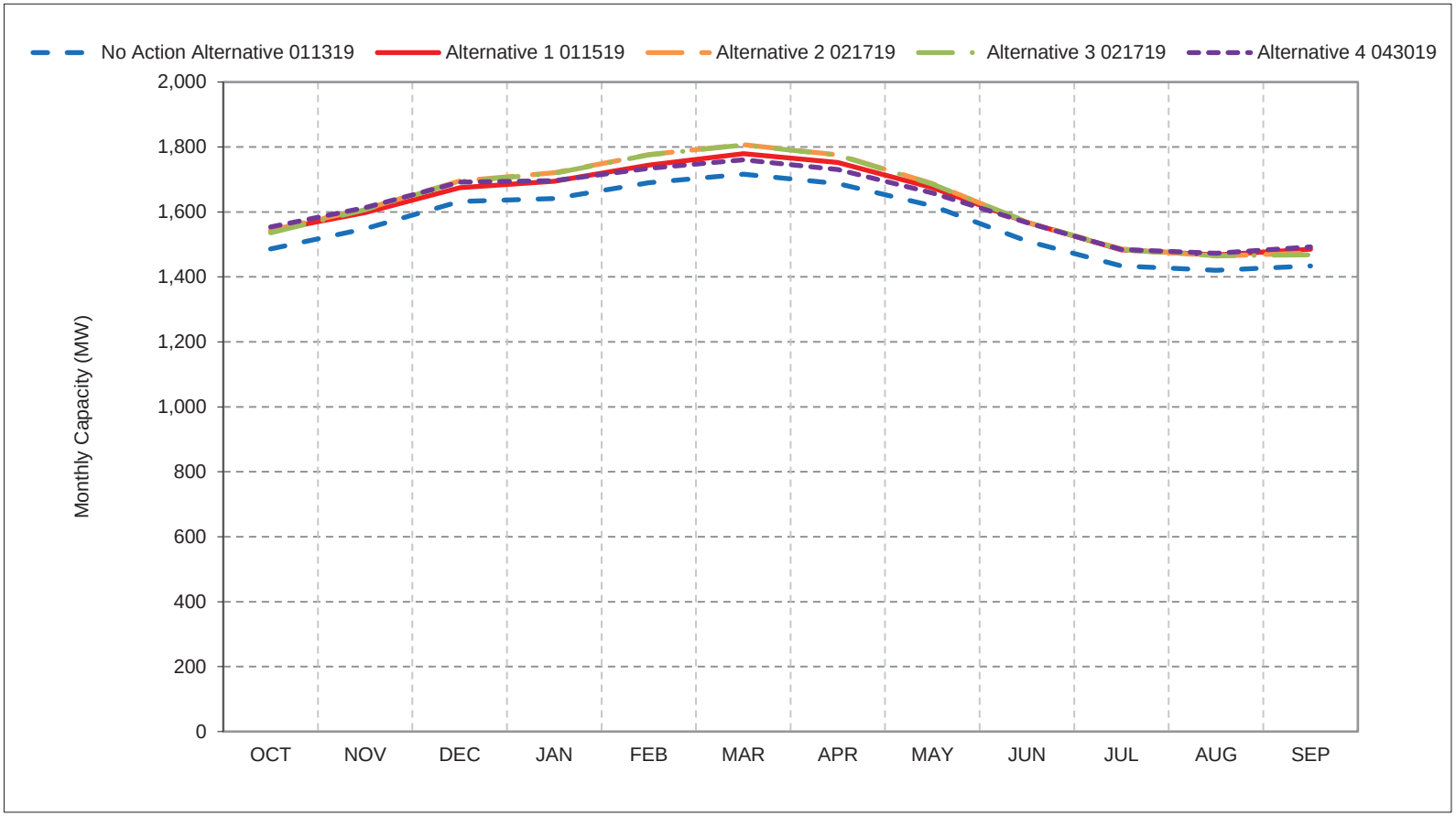
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-4. CVP Total Capacity, Below Normal Year Average Capacity



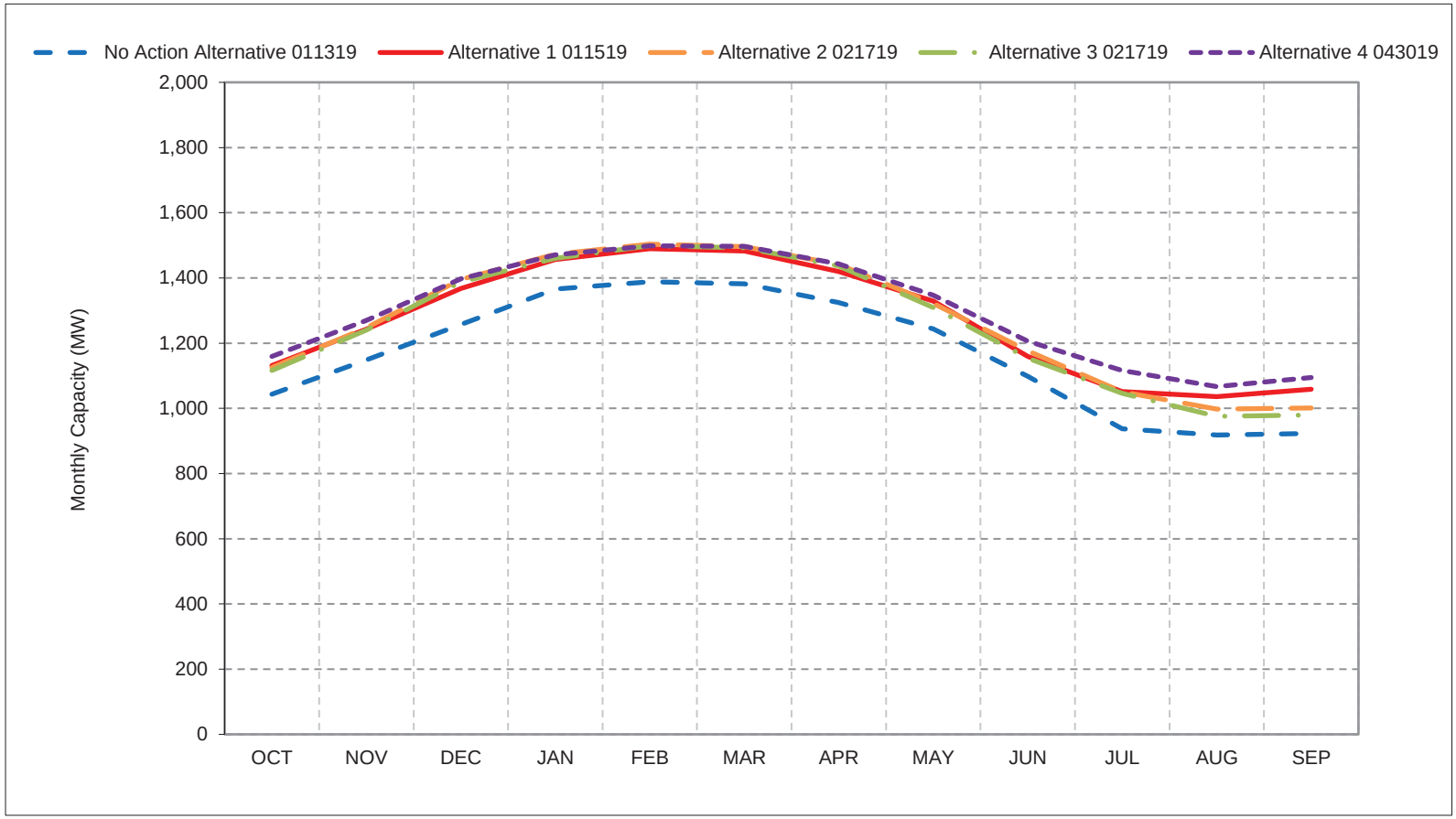
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-5. CVP Total Capacity, Dry Year Average Capacity



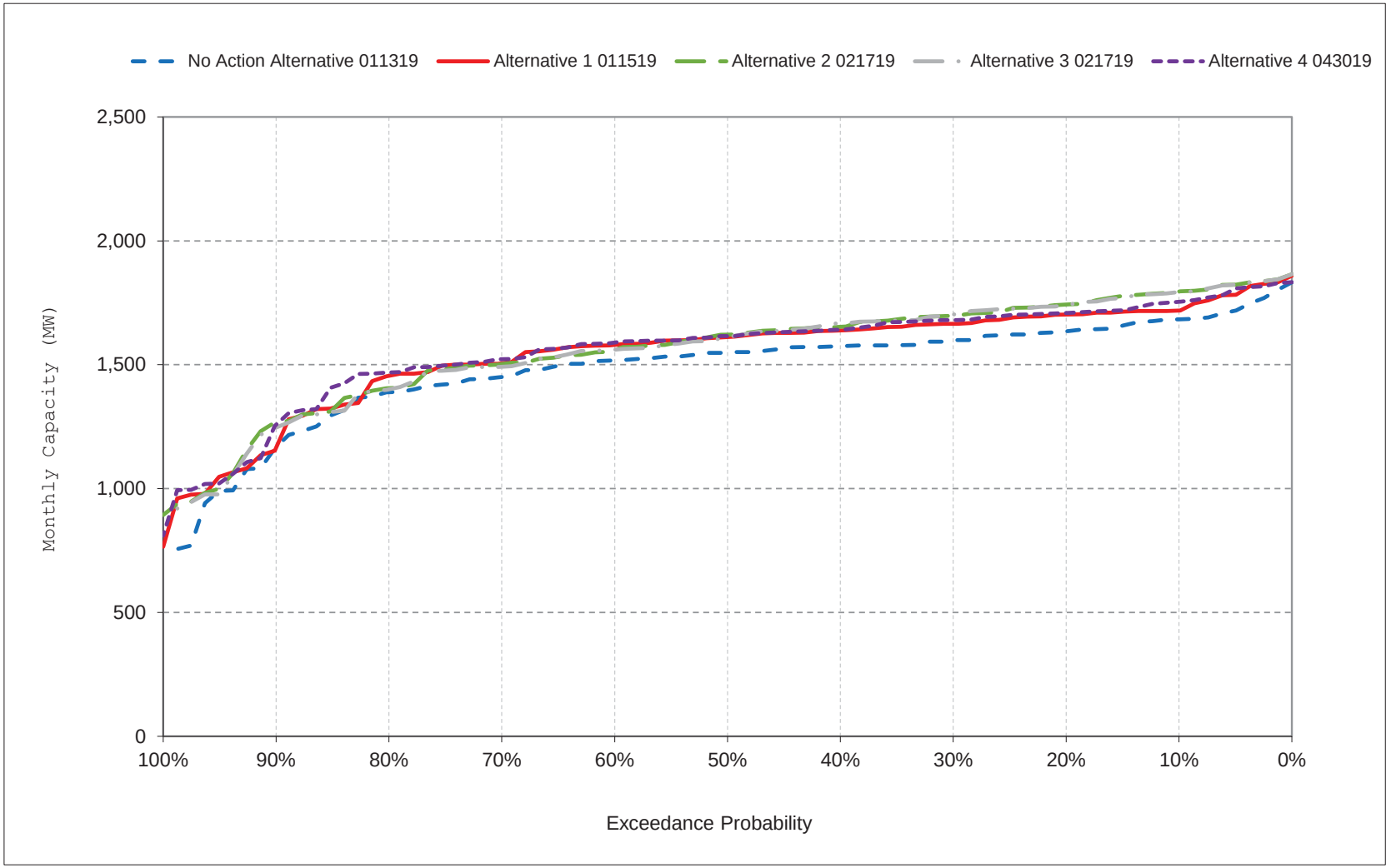
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-6. CVP Total Capacity, Critical Year Average Capacity



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

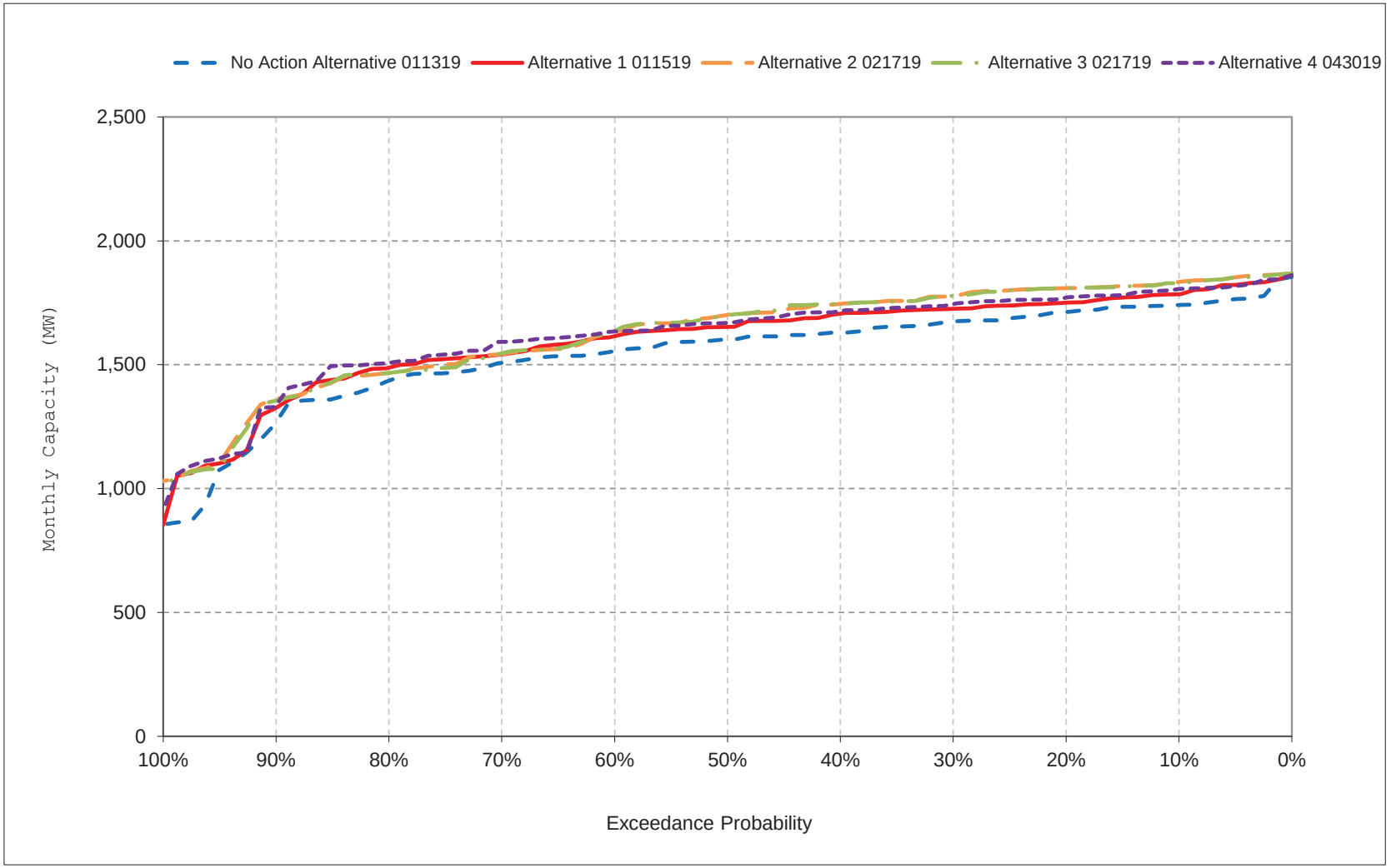
Figure 1-7. CVP Total Capacity, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

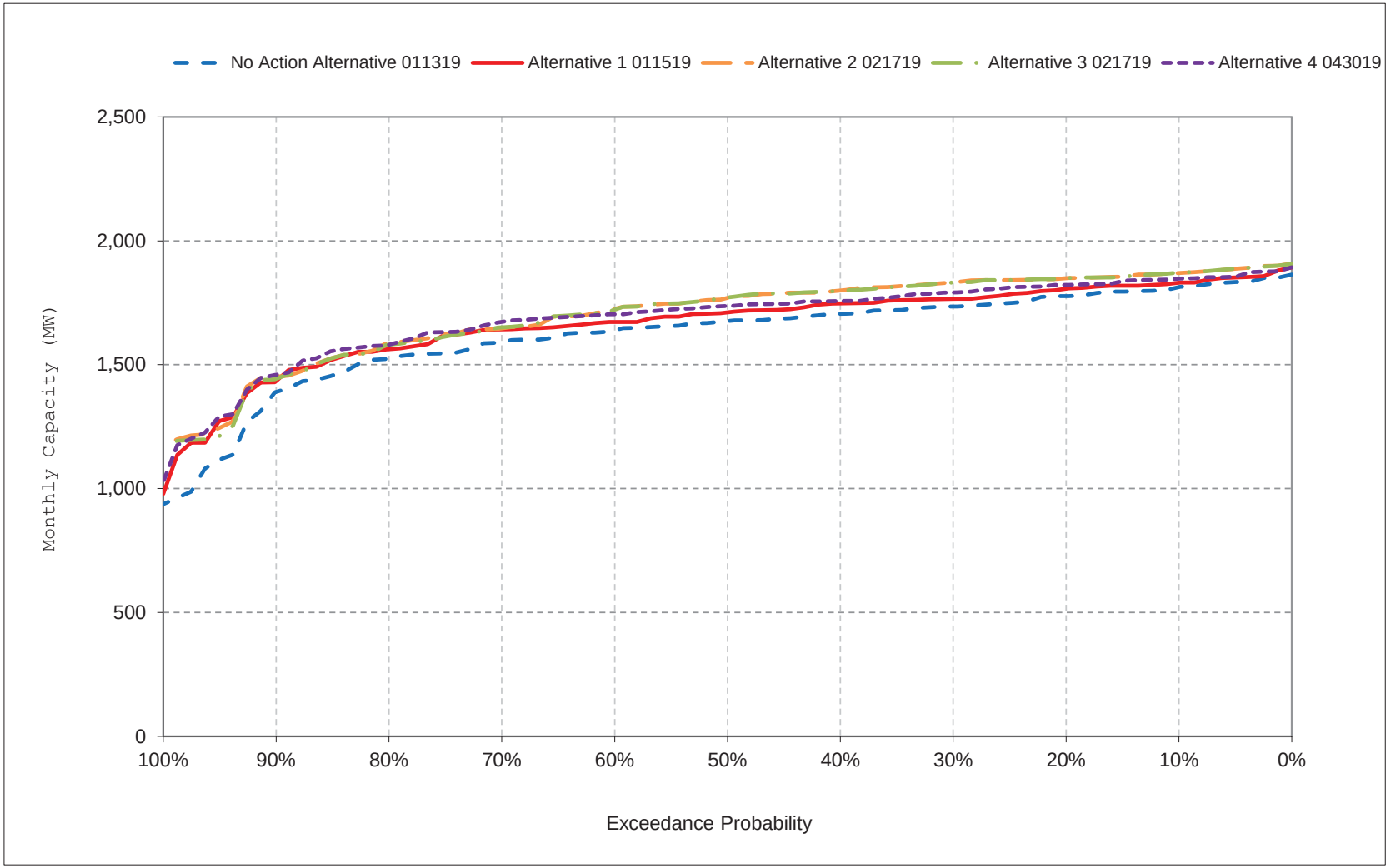
Figure 1-8. CVP Total Capacity, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

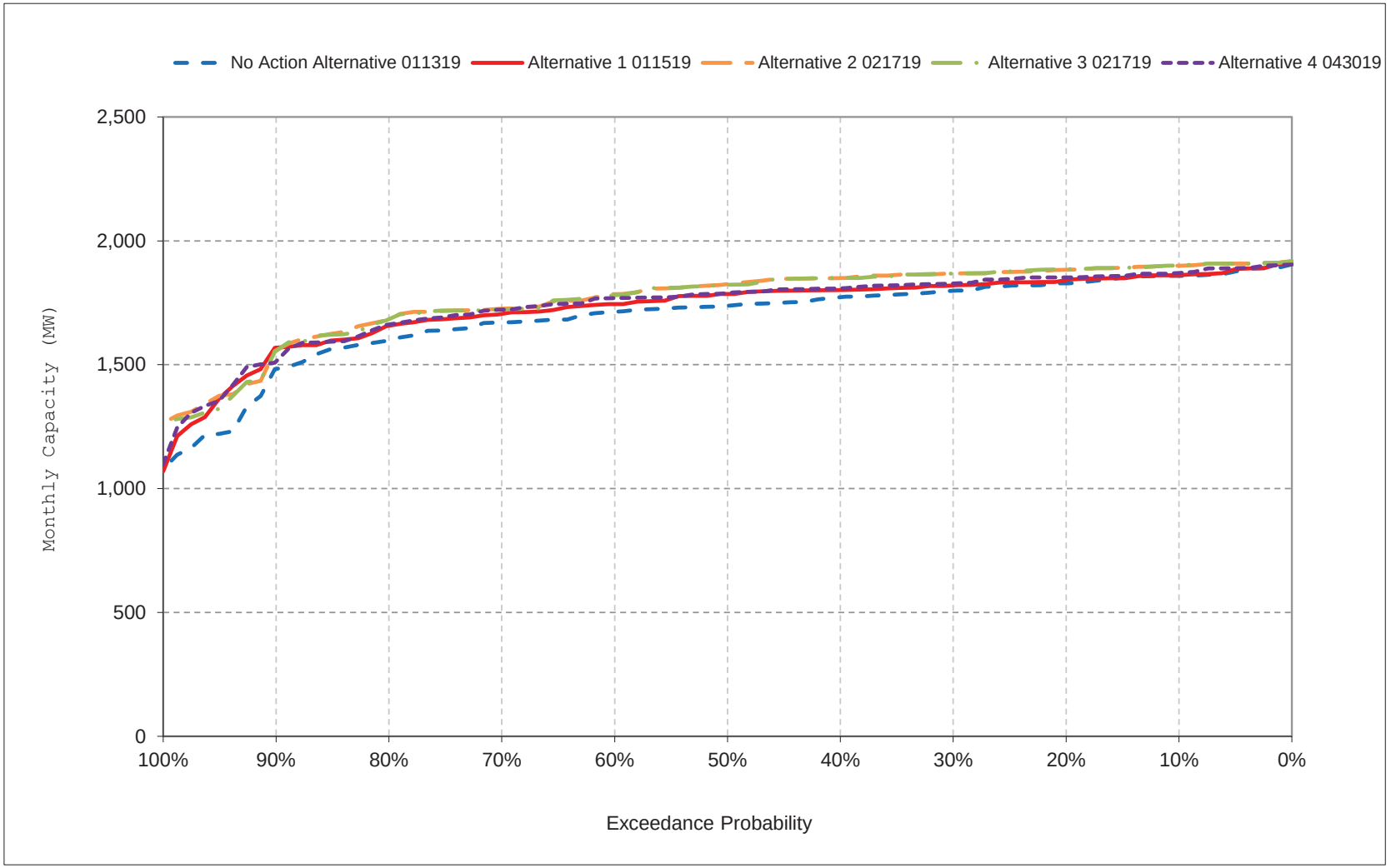
Figure 1-9. CVP Total Capacity, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

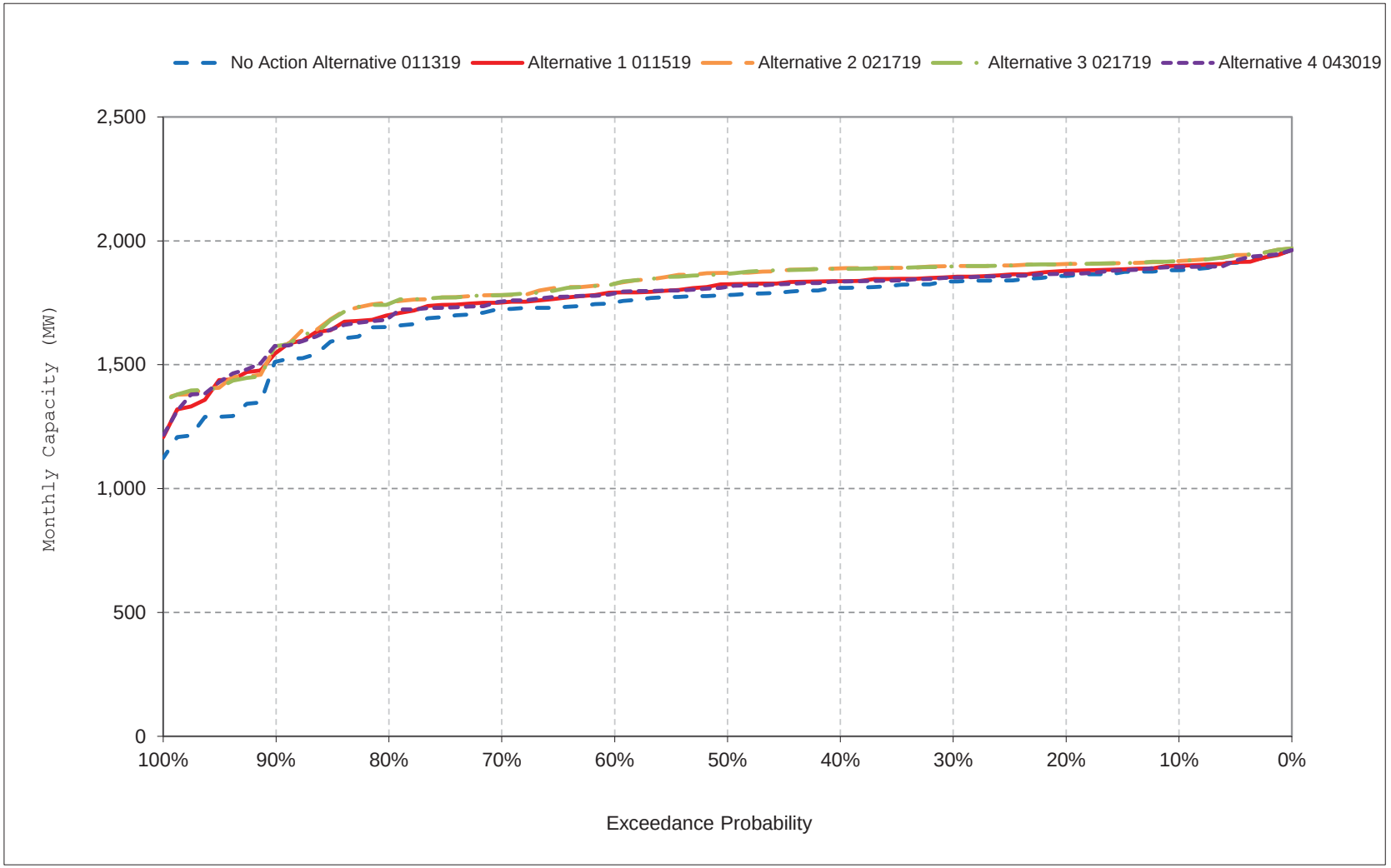
Figure 1-10. CVP Total Capacity, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

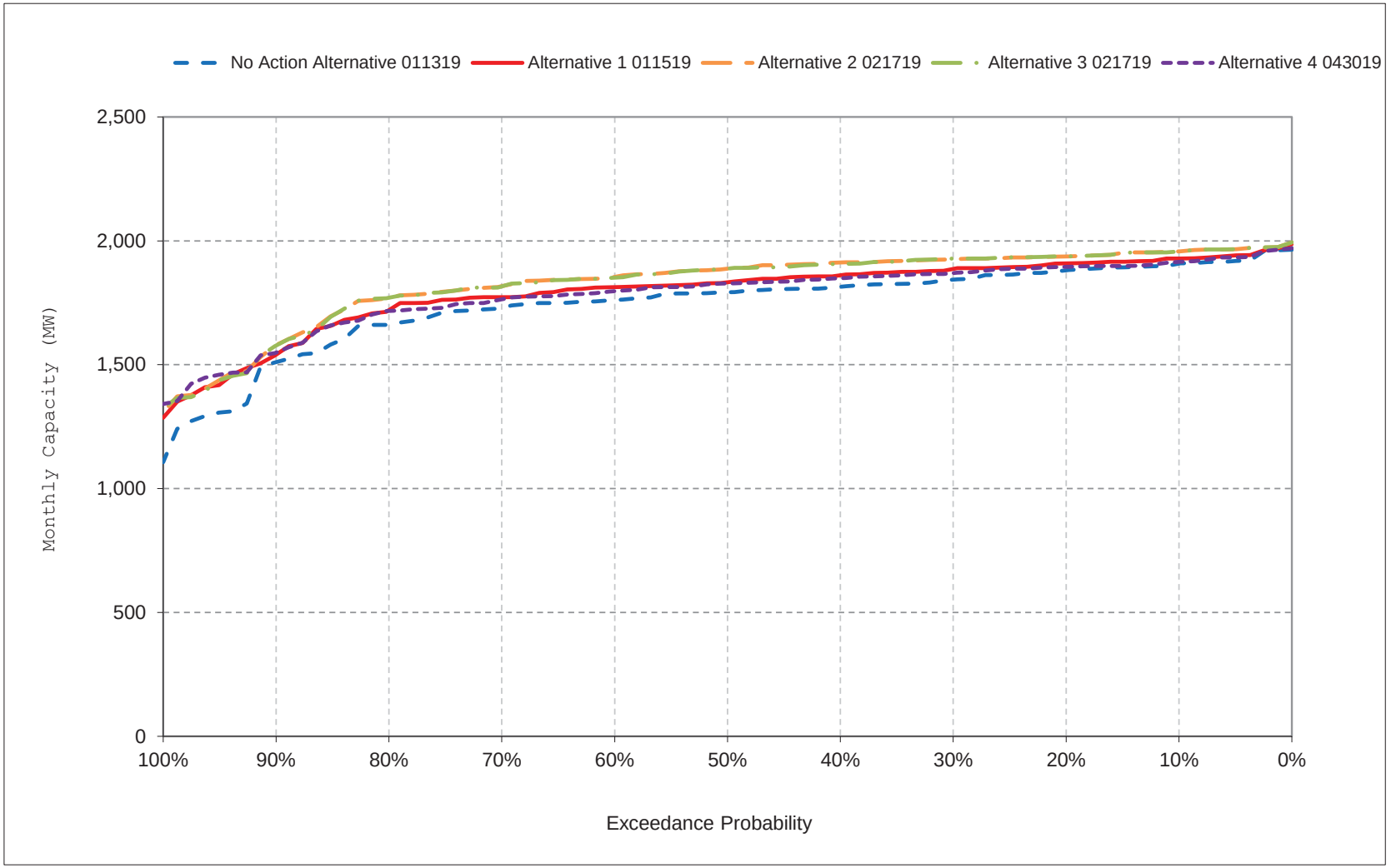
Figure 1-11. CVP Total Capacity, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

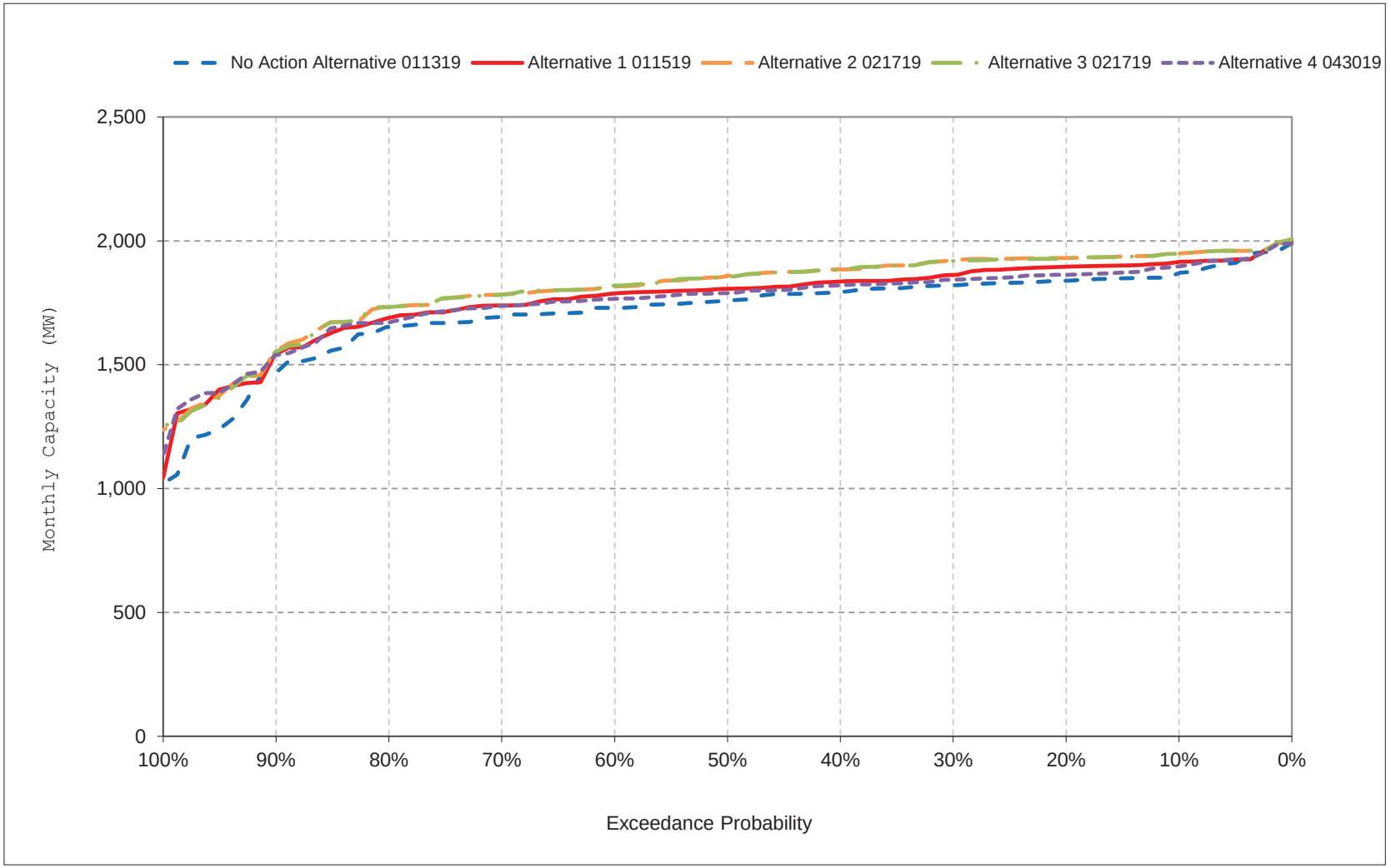
Figure 1-12. CVP Total Capacity, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

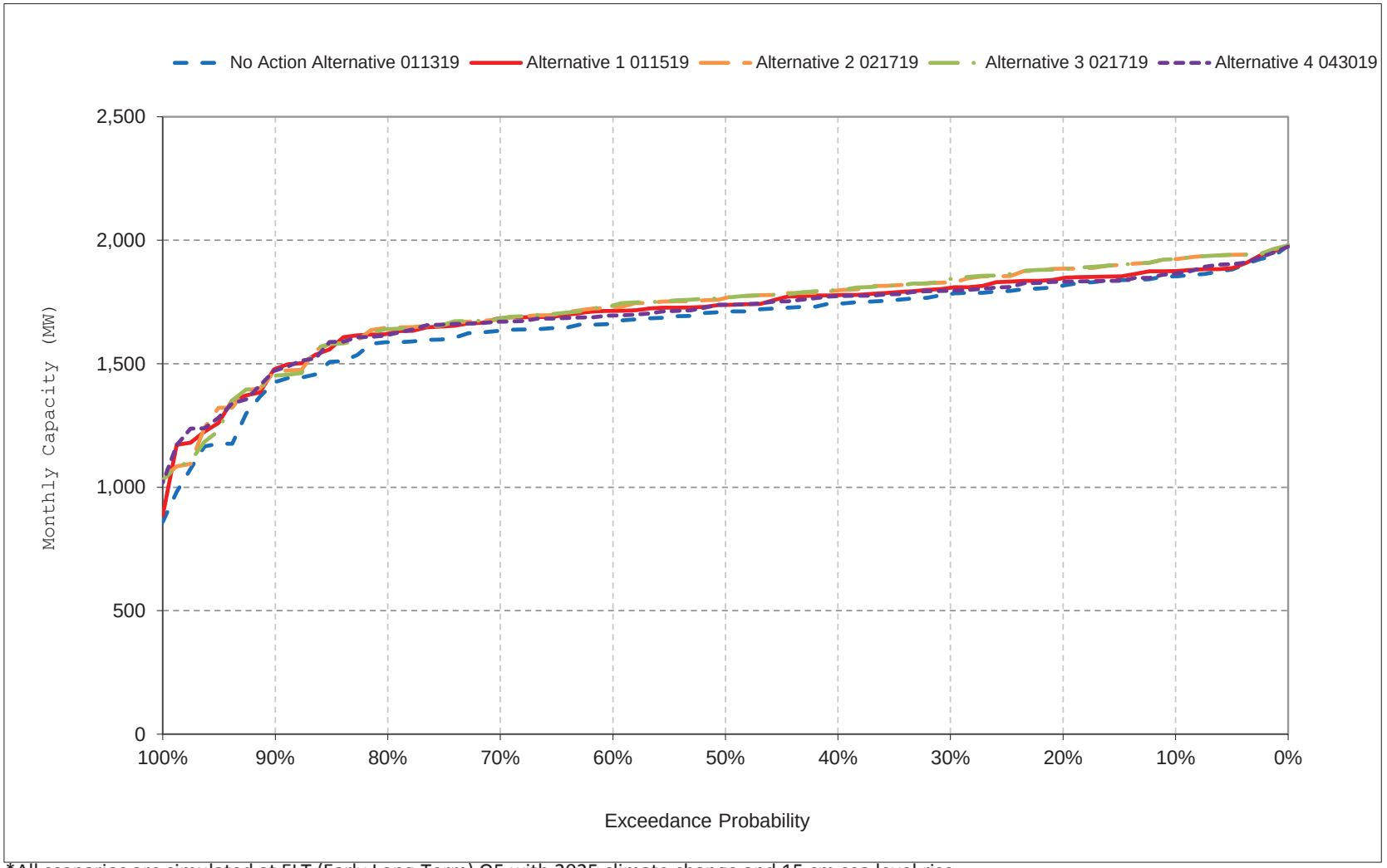
Figure 1-13. CVP Total Capacity, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

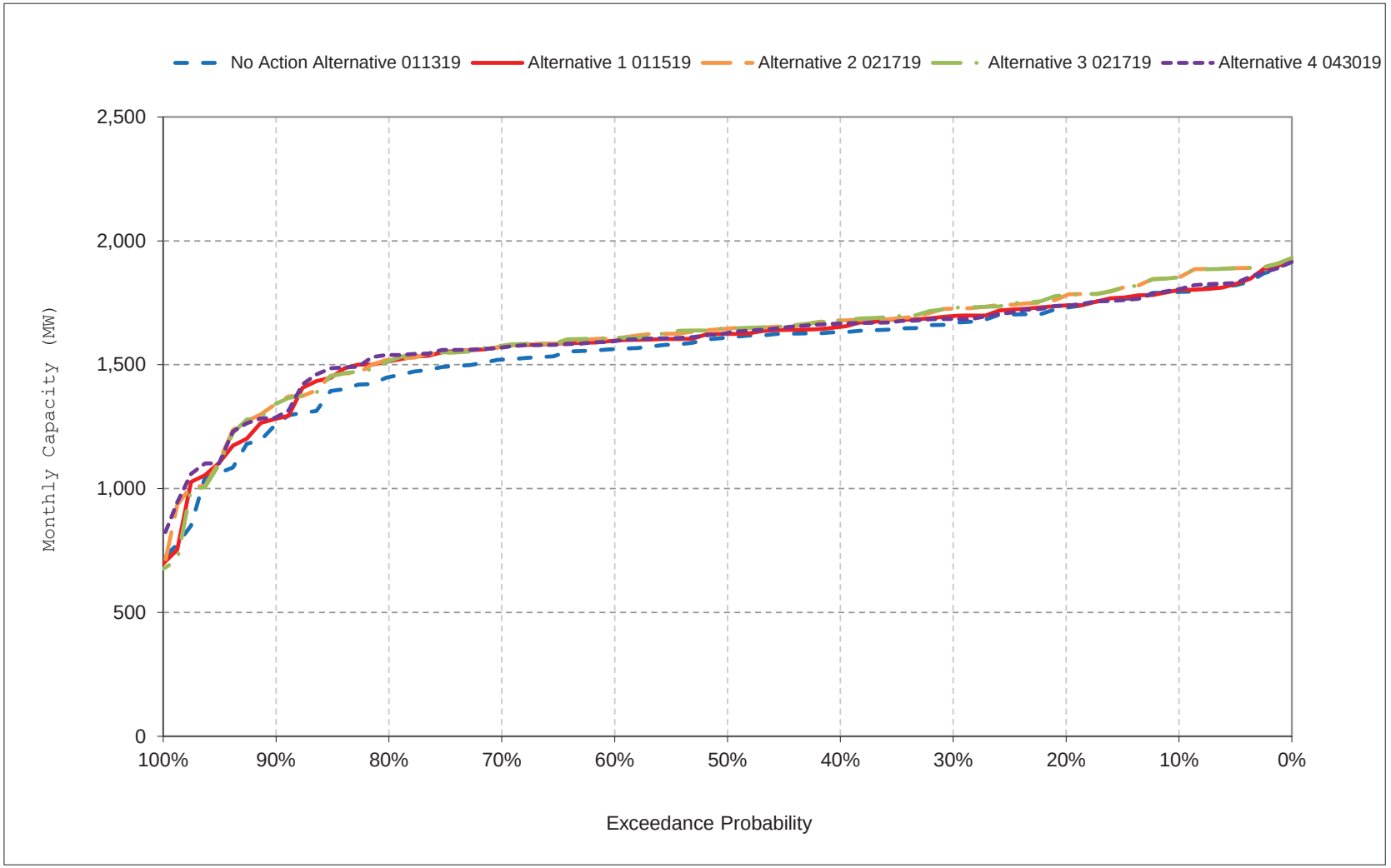
Figure 1-14. CVP Total Capacity, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

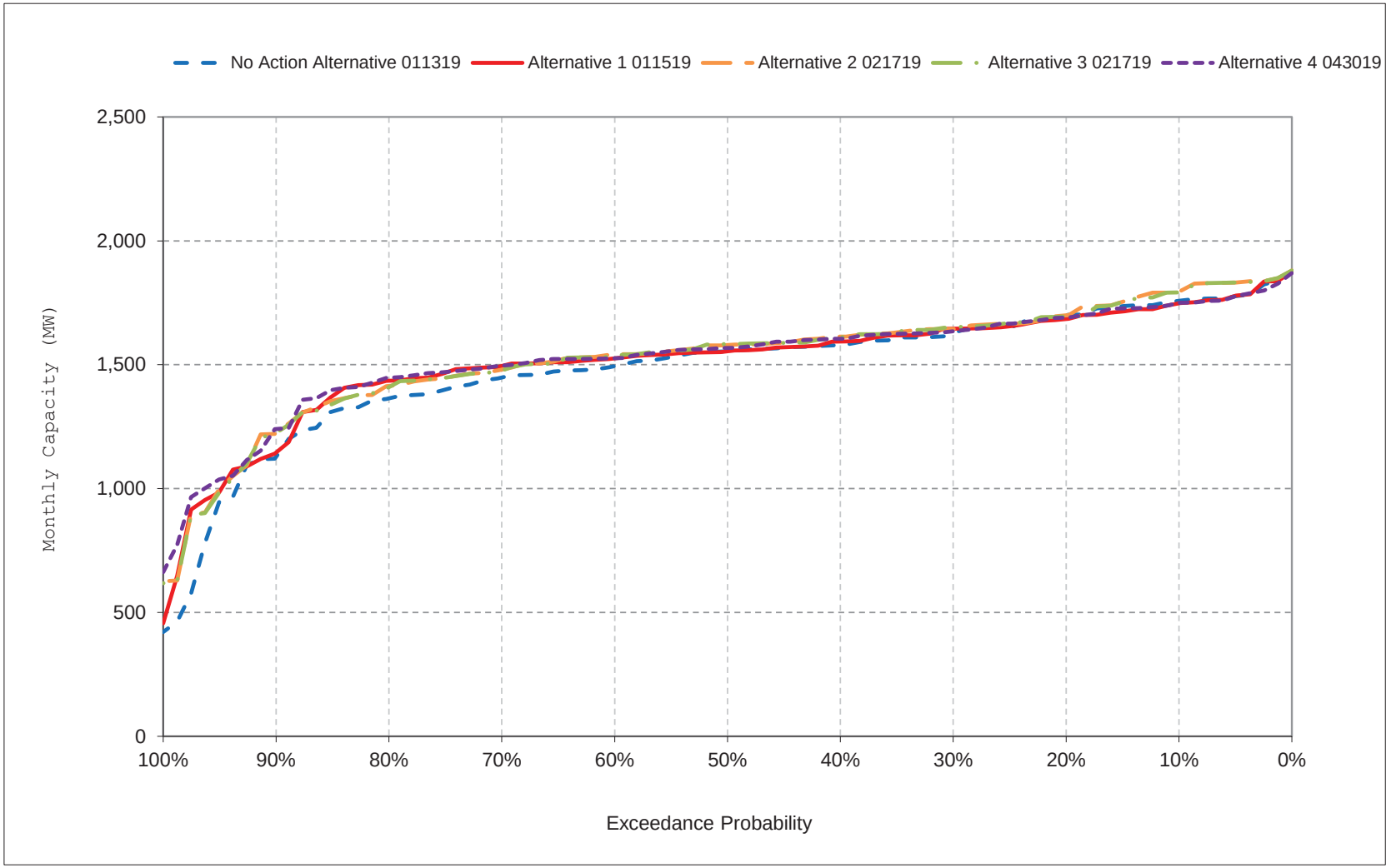
Figure 1-15. CVP Total Capacity, June



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

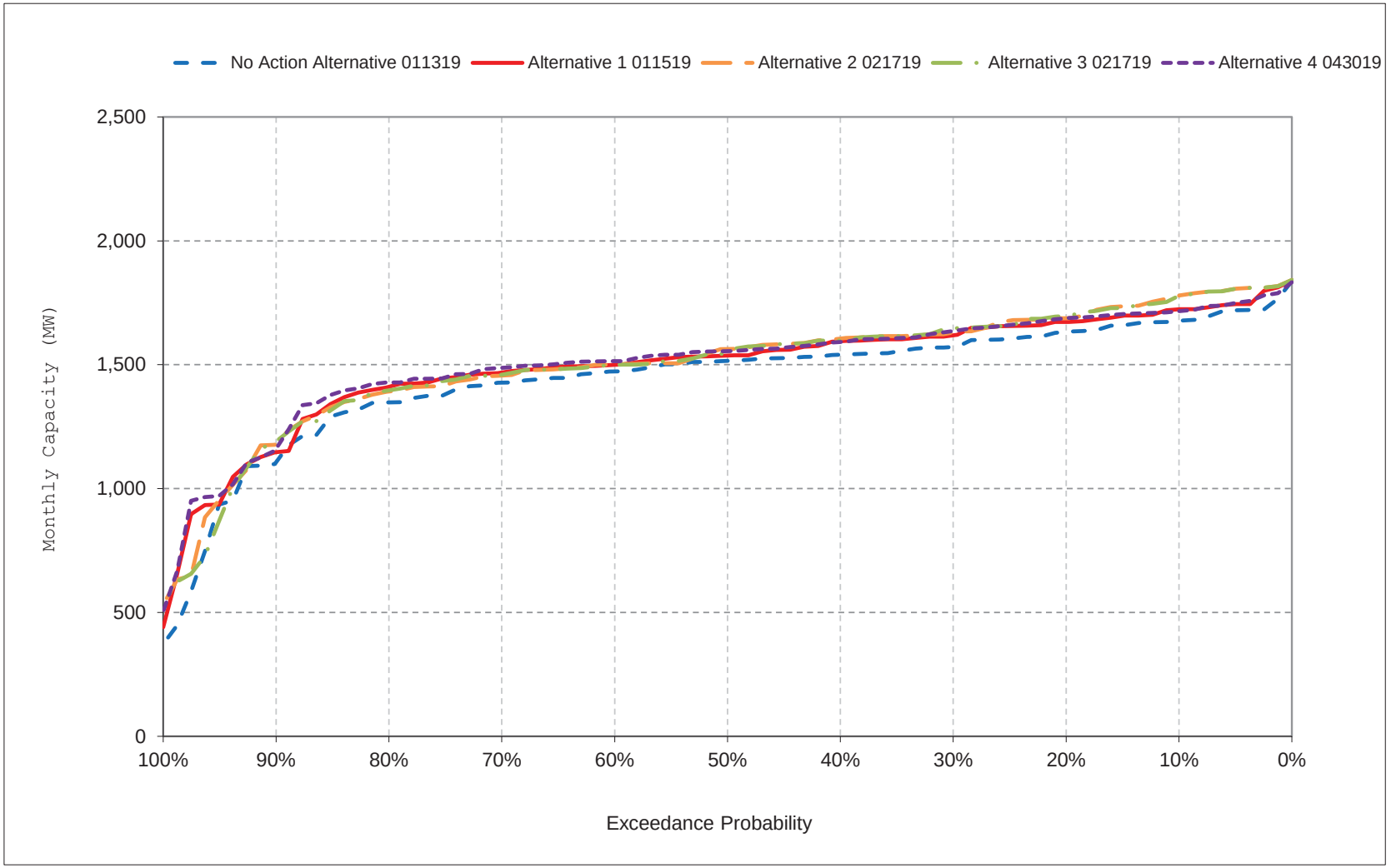
Figure 1-16. CVP Total Capacity, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

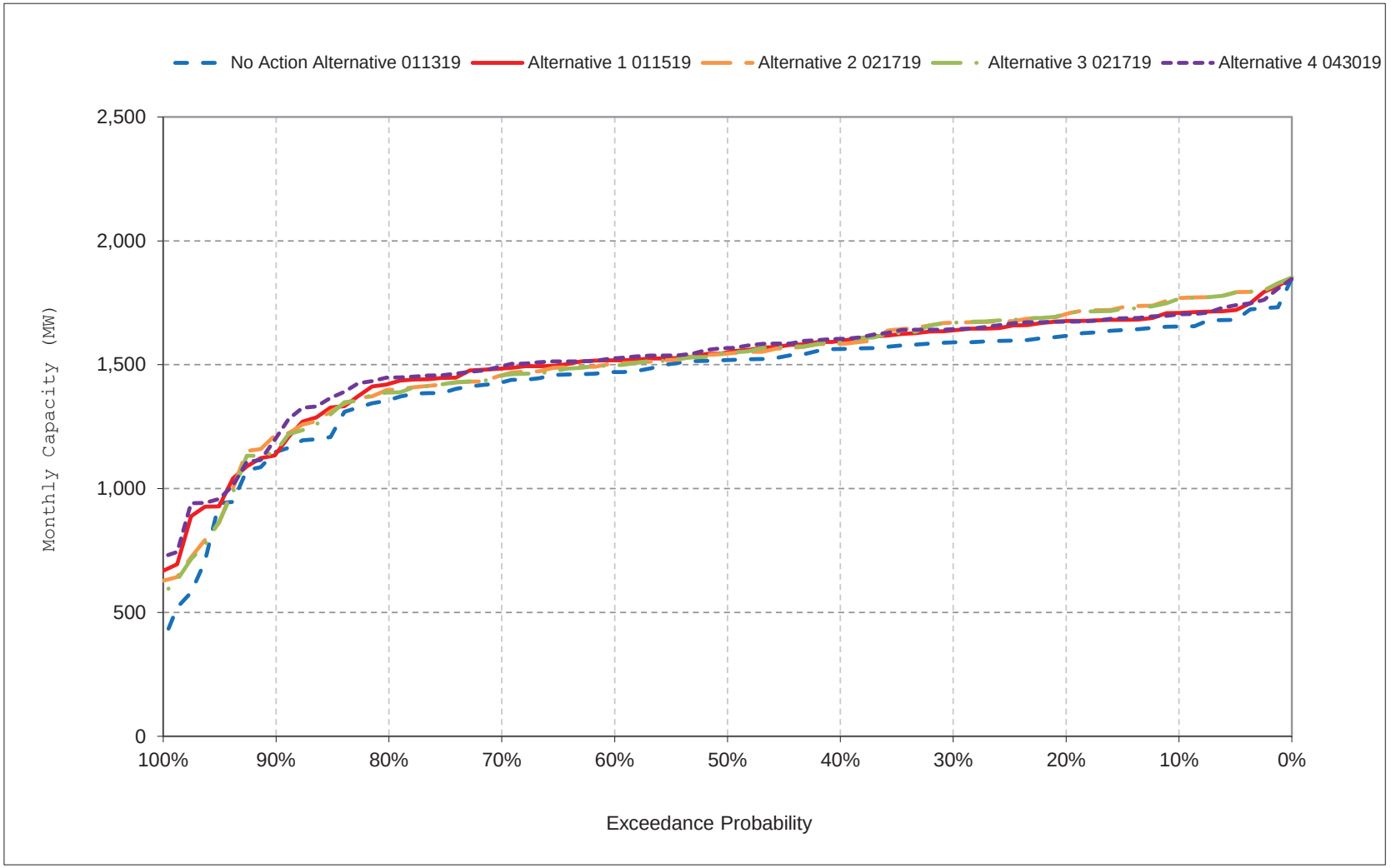
Figure 1-17. CVP Total Capacity, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 1-18. CVP Total Capacity, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 2-1. CVP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	445	661	706	677	696	491	643	572	782	597	657
20%	376	381	358	558	623	579	342	582	558	758	555	607
30%	341	337	229	389	475	377	300	524	532	716	525	527
40%	319	287	184	217	238	257	282	488	510	660	501	450
50%	283	252	165	193	186	219	264	472	486	641	483	344
60%	263	193	152	152	153	184	255	454	469	622	463	279
70%	228	154	144	148	135	165	243	421	453	557	443	265
80%	190	129	123	134	125	150	209	347	429	508	392	232
90%	159	118	110	119	112	137	186	289	340	443	332	187
Long Term												
Full Simulation Period[a]	287	266	258	313	316	329	308	474	489	622	476	396
Water Year Types[b,c]												
Wet (32%)	388	390	323	567	502	555	431	595	536	678	547	623
Above Normal (16%)	328	351	255	312	444	385	330	503	518	727	525	457
Below Normal (13%)	255	194	242	168	257	197	261	476	523	673	518	306
Dry (24%)	227	190	283	168	144	186	229	410	488	593	431	251
Critical (15%)	150	96	98	137	113	138	193	285	330	389	304	160

Alternative 1 011519

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	440	298	667	719	706	710	487	614	628	790	588	478
20%	391	271	472	595	653	591	346	572	589	761	565	386
30%	334	249	291	450	494	396	290	537	567	742	545	348
40%	287	215	192	270	289	261	265	488	529	682	508	329
50%	262	204	176	209	203	234	249	471	509	655	501	304
60%	233	174	156	152	164	192	238	444	497	640	488	274
70%	215	156	147	144	147	173	226	412	485	570	470	267
80%	198	139	125	138	128	161	214	380	437	524	402	225
90%	158	125	113	121	121	138	195	303	370	469	345	192
Long Term												
Full Simulation Period[a]	281	218	282	337	333	347	303	474	517	641	490	316
Water Year Types[b,c]												
Wet (32%)	378	282	371	591	520	558	415	576	559	689	560	424
Above Normal (16%)	311	239	292	367	474	419	319	498	550	740	534	326
Below Normal (13%)	255	195	242	216	305	237	263	492	573	694	542	309
Dry (24%)	228	196	291	169	146	198	225	422	505	610	447	255
Critical (15%)	148	113	99	141	116	157	207	301	360	431	315	182

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	19	-147	6	13	28	14	-5	-29	56	7	-9	-179
20%	14	-110	114	37	29	11	4	-10	32	3	10	-221
30%	-7	-88	61	61	19	19	-9	14	34	25	20	-179
40%	-32	-72	8	53	51	4	-18	0	19	21	7	-121
50%	-21	-48	11	16	16	15	-15	-1	24	14	18	-40
60%	-30	-20	4	0	12	7	-17	-9	28	18	26	-4
70%	-14	3	4	-4	12	8	-17	-9	32	13	27	2
80%	8	9	1	4	3	11	6	33	7	16	10	-8
90%	-2	7	3	2	9	0	9	13	30	27	13	5
Long Term												
Full Simulation Period[a]	-6	-48	24	24	18	18	-6	0	28	18	14	-79
Water Year Types[b,c]												
Wet (32%)	-9	-108	49	24	18	4	-16	-19	23	11	13	-198
Above Normal (16%)	-18	-112	37	55	30	34	-11	-5	32	12	9	-131
Below Normal (13%)	-1	1	0	48	48	41	2	15	50	21	24	3
Dry (24%)	0	6	9	1	2	13	-5	12	17	17	16	4
Critical (15%)	-1	17	1	4	3	19	14	17	31	42	12	22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 2-2. CVP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	445	661	706	677	696	491	643	572	782	597	657
20%	376	381	358	558	623	579	342	582	558	758	555	607
30%	341	337	229	389	475	377	300	524	532	716	525	527
40%	319	287	184	217	238	257	282	488	510	660	501	450
50%	283	252	165	193	186	219	264	472	486	641	483	344
60%	263	193	152	152	153	184	255	454	469	622	463	279
70%	228	154	144	148	135	165	243	421	453	557	443	265
80%	190	129	123	134	125	150	209	347	429	508	392	232
90%	159	118	110	119	112	137	186	289	340	443	332	187
Long Term												
Full Simulation Period[a]	287	266	258	313	316	329	308	474	489	622	476	396
Water Year Types[b,c]												
Wet (32%)	388	390	323	567	502	555	431	595	536	678	547	623
Above Normal (16%)	328	351	255	312	444	385	330	503	518	727	525	457
Below Normal (13%)	255	194	242	168	257	197	261	476	523	673	518	306
Dry (24%)	227	190	283	168	144	186	229	410	488	593	431	251
Critical (15%)	150	96	98	137	113	138	193	285	330	389	304	160

Alternative 2 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	433	294	666	691	742	713	481	631	708	801	645	472
20%	403	259	413	597	654	586	336	581	671	787	598	386
30%	339	235	240	431	459	369	293	546	613	765	578	372
40%	293	214	196	278	298	258	259	517	584	711	553	346
50%	257	197	170	192	200	207	243	490	558	684	529	317
60%	239	173	151	161	163	189	232	456	519	633	497	291
70%	209	149	138	145	136	167	224	436	502	590	459	275
80%	184	135	129	133	121	155	207	391	468	552	423	247
90%	148	125	114	118	110	135	190	308	361	466	361	193
Long Term												
Full Simulation Period[a]	278	212	270	332	338	337	299	485	558	660	512	329
Water Year Types[b,c]												
Wet (32%)	369	280	369	584	540	552	411	578	594	703	588	424
Above Normal (16%)	322	222	256	353	489	401	299	502	636	766	572	336
Below Normal (13%)	265	193	221	217	290	235	257	515	628	727	574	356
Dry (24%)	223	195	278	167	137	179	225	441	533	628	444	272
Critical (15%)	138	100	101	141	113	157	218	310	376	443	342	183

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	11	-151	5	-15	65	17	-10	-13	136	19	48	-185
20%	27	-121	54	39	31	7	-6	-1	113	30	43	-221
30%	-1	-102	10	41	-16	-8	-7	22	80	48	53	-155
40%	-26	-73	12	60	60	2	-24	29	74	51	52	-104
50%	-26	-55	5	-1	14	-12	-21	17	72	43	46	-27
60%	-25	-20	-1	9	10	4	-23	2	50	12	34	12
70%	-20	-5	-5	-3	1	2	-19	15	49	33	16	10
80%	-6	5	5	-2	-4	5	-1	44	38	44	32	15
90%	-11	7	4	-2	-1	-2	4	19	21	23	30	6
Long Term												
Full Simulation Period[a]	-9	-54	11	19	22	8	-9	11	69	37	37	-67
Water Year Types[b,c]												
Wet (32%)	-19	-111	46	18	38	-2	-20	-17	58	25	41	-199
Above Normal (16%)	-6	-130	1	41	45	16	-31	-1	119	39	46	-122
Below Normal (13%)	9	-1	-21	49	33	38	-4	39	106	54	56	50
Dry (24%)	-4	5	-5	-2	-7	-7	-5	30	44	35	13	21
Critical (15%)	-12	3	4	5	0	19	25	26	46	54	39	23

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 2-3. CVP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	445	661	706	677	696	491	643	572	782	597	657
20%	376	381	358	558	623	579	342	582	558	758	555	607
30%	341	337	229	389	475	377	300	524	532	716	525	527
40%	319	287	184	217	238	257	282	488	510	660	501	450
50%	283	252	165	193	186	219	264	472	486	641	483	344
60%	263	193	152	152	153	184	255	454	469	622	463	279
70%	228	154	144	148	135	165	243	421	453	557	443	265
80%	190	129	123	134	125	150	209	347	429	508	392	232
90%	159	118	110	119	112	137	186	289	340	443	332	187
Long Term												
Full Simulation Period[a]	287	266	258	313	316	329	308	474	489	622	476	396
Water Year Types[b,c]												
Wet (32%)	388	390	323	567	502	555	431	595	536	678	547	623
Above Normal (16%)	328	351	255	312	444	385	330	503	518	727	525	457
Below Normal (13%)	255	194	242	168	257	197	261	476	523	673	518	306
Dry (24%)	227	190	283	168	144	186	229	410	488	593	431	251
Critical (15%)	150	96	98	137	113	138	193	285	330	389	304	160

Alternative 3 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	439	298	666	691	742	714	481	631	714	807	638	469
20%	409	272	417	583	653	586	341	588	666	791	608	399
30%	346	236	253	431	459	369	286	539	612	764	578	363
40%	307	212	193	278	298	257	268	507	566	713	553	337
50%	274	196	171	195	190	215	254	489	554	679	527	327
60%	245	168	153	159	165	187	233	455	515	637	498	293
70%	218	149	138	146	136	167	223	433	500	586	458	278
80%	196	133	129	136	120	148	207	389	468	551	424	243
90%	146	124	115	118	111	136	194	308	358	459	344	194
Long Term												
Full Simulation Period[a]	287	213	275	330	336	335	299	483	554	659	511	327
Water Year Types[b,c]												
Wet (32%)	376	281	376	581	539	551	410	570	591	704	592	417
Above Normal (16%)	308	235	270	349	487	400	298	503	627	769	568	338
Below Normal (13%)	292	195	225	216	289	235	260	516	623	726	569	356
Dry (24%)	244	188	279	164	137	176	225	441	532	627	442	275
Critical (15%)	141	98	100	151	108	156	220	311	369	433	338	182

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	17	-147	5	-15	65	18	-10	-13	142	24	41	-188
20%	33	-109	59	25	30	7	-1	6	108	33	53	-208
30%	6	-101	23	41	-16	-8	-13	15	80	48	52	-163
40%	-12	-75	9	60	60	1	-14	19	56	53	52	-112
50%	-9	-56	6	1	4	-4	-10	17	69	38	43	-17
60%	-18	-25	1	7	13	3	-22	1	46	15	35	14
70%	-11	-5	-5	-2	1	2	-20	12	47	29	14	13
80%	6	3	6	1	-5	-2	-1	42	38	43	32	10
90%	-13	6	5	-1	-1	-2	8	18	18	16	12	6
Long Term												
Full Simulation Period[a]	1	-53	16	18	21	7	-9	9	65	37	36	-68
Water Year Types[b,c]												
Wet (32%)	-12	-109	53	14	37	-4	-21	-25	55	26	45	-206
Above Normal (16%)	-21	-117	15	37	44	15	-31	0	109	42	43	-119
Below Normal (13%)	36	0	-17	48	32	38	-1	40	100	53	50	51
Dry (24%)	16	-3	-4	-5	-6	-10	-4	31	44	34	12	24
Critical (15%)	-8	2	2	14	-5	18	27	26	39	44	35	22

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 2-4. CVP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	422	445	661	706	677	696	491	643	572	782	597	657
20%	376	381	358	558	623	579	342	582	558	758	555	607
30%	341	337	229	389	475	377	300	524	532	716	525	527
40%	319	287	184	217	238	257	282	488	510	660	501	450
50%	283	252	165	193	186	219	264	472	486	641	483	344
60%	263	193	152	152	153	184	255	454	469	622	463	279
70%	228	154	144	148	135	165	243	421	453	557	443	265
80%	190	129	123	134	125	150	209	347	429	508	392	232
90%	159	118	110	119	112	137	186	289	340	443	332	187
Long Term												
Full Simulation Period[a]	287	266	258	313	316	329	308	474	489	622	476	396
Water Year Types[b,c]												
Wet (32%)	388	390	323	567	502	555	431	595	536	678	547	623
Above Normal (16%)	328	351	255	312	444	385	330	503	518	727	525	457
Below Normal (13%)	255	194	242	168	257	197	261	476	523	673	518	306
Dry (24%)	227	190	283	168	144	186	229	410	488	593	431	251
Critical (15%)	150	96	98	137	113	138	193	285	330	389	304	160

Alternative 4 043019

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	439	292	644	673	682	706	487	608	580	776	578	463
20%	352	254	466	580	630	595	373	575	564	762	553	376
30%	320	224	288	426	440	414	335	532	536	726	533	351
40%	284	206	197	276	268	295	313	491	515	667	506	321
50%	260	194	169	194	215	248	285	467	500	638	496	286
60%	241	175	153	155	160	219	261	455	483	614	476	277
70%	219	153	147	143	147	187	250	438	470	573	452	255
80%	193	140	137	138	130	168	224	392	411	521	393	223
90%	171	122	113	122	121	145	191	323	366	438	334	181
Long Term												
Full Simulation Period[a]	280	212	280	327	327	353	323	474	494	629	479	310
Water Year Types[b,c]												
Wet (32%)	371	269	363	577	511	559	441	583	547	686	553	413
Above Normal (16%)	313	242	288	348	454	435	359	507	515	749	532	336
Below Normal (13%)	241	196	247	221	294	258	277	470	523	688	507	284
Dry (24%)	230	191	292	159	148	208	242	418	486	586	437	255
Critical (15%)	167	108	101	143	118	147	204	301	344	393	308	173

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	18	-153	-17	-33	5	10	-4	-35	8	-7	-19	-194
20%	-24	-126	107	22	7	15	31	-7	6	5	-3	-231
30%	-20	-113	58	37	-35	37	35	9	4	9	8	-176
40%	-34	-81	13	58	31	39	31	2	5	7	5	-129
50%	-22	-58	3	1	29	29	21	-6	15	-3	13	-58
60%	-23	-19	1	3	7	35	6	2	14	-8	13	-2
70%	-10	0	4	-5	12	22	7	17	17	16	9	-11
80%	2	10	13	4	5	18	15	46	-19	13	1	-10
90%	12	4	3	3	10	7	5	34	26	-4	3	-6
Long Term												
Full Simulation Period[a]	-6	-54	21	14	11	24	14	0	5	7	4	-85
Water Year Types[b,c]												
Wet (32%)	-17	-121	40	10	9	4	10	-12	11	7	6	-210
Above Normal (16%)	-15	-110	33	35	11	50	29	4	-2	21	7	-121
Below Normal (13%)	-15	1	5	53	37	61	16	-6	0	15	-11	-21
Dry (24%)	2	1	10	-10	4	23	12	8	-2	-7	6	5
Critical (15%)	18	12	3	6	5	9	11	16	15	4	4	14

a Based on the 82-year simulation period.

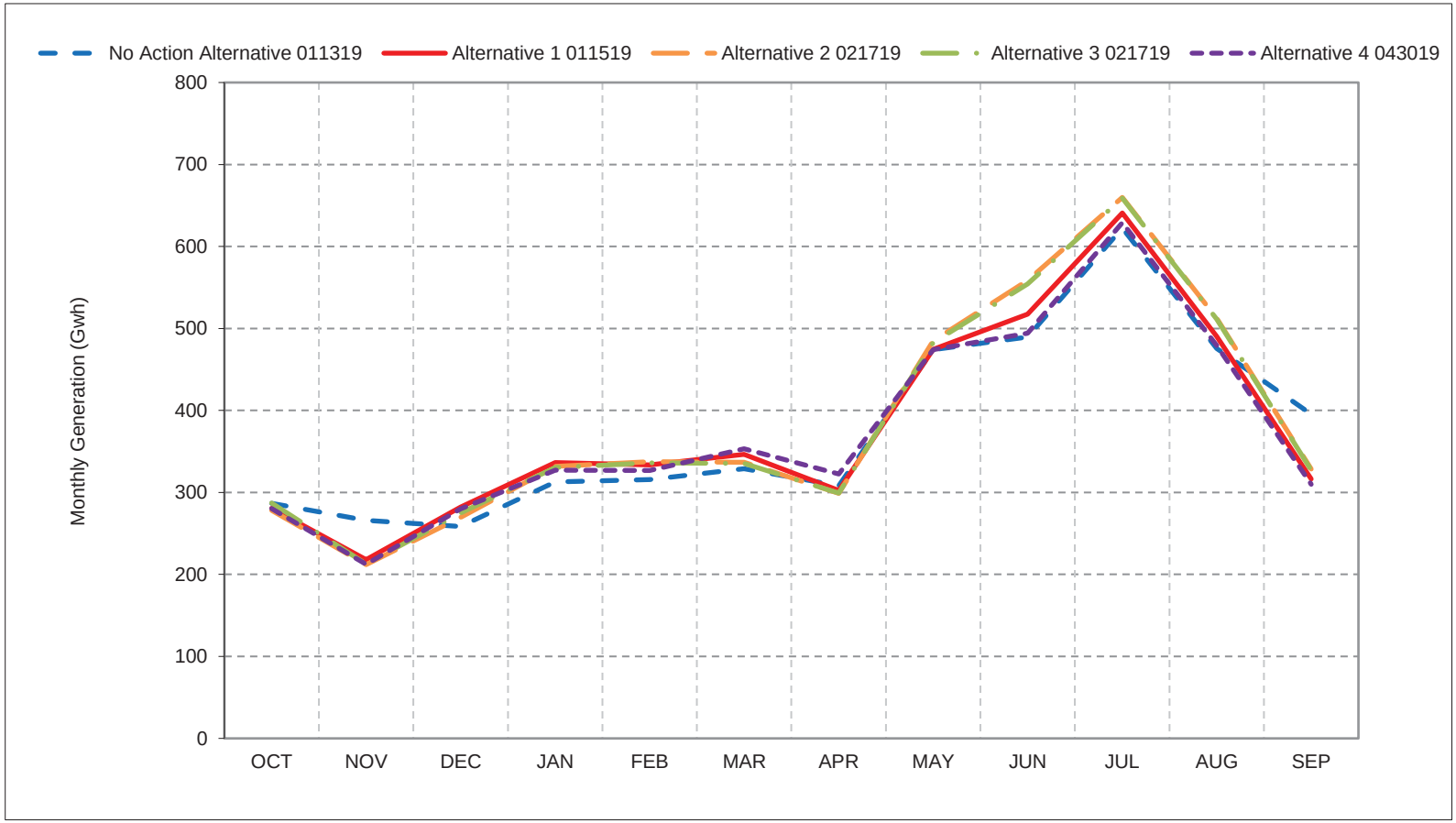
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

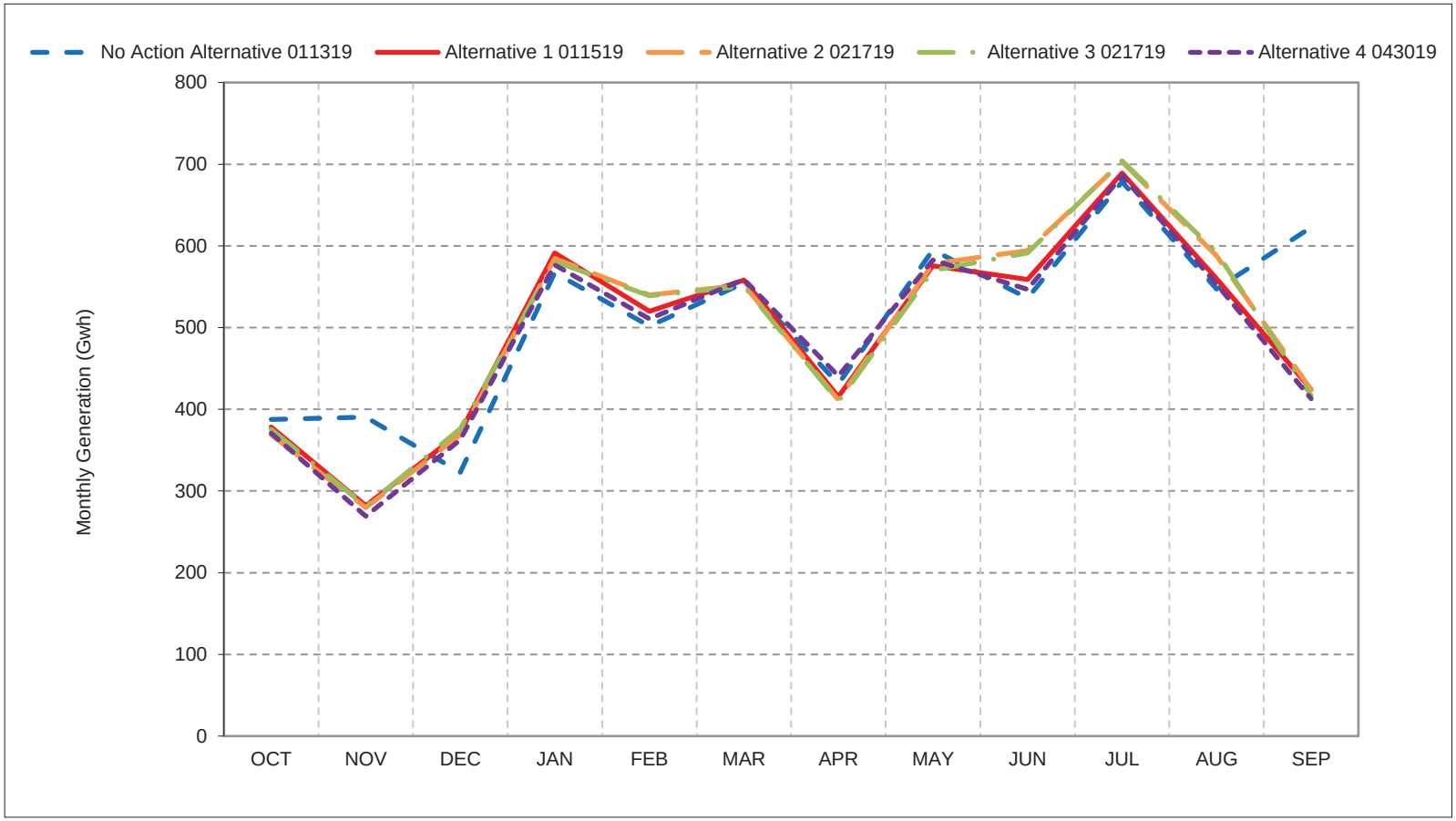
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-1. CVP Total Generation, Long-Term Average Generation



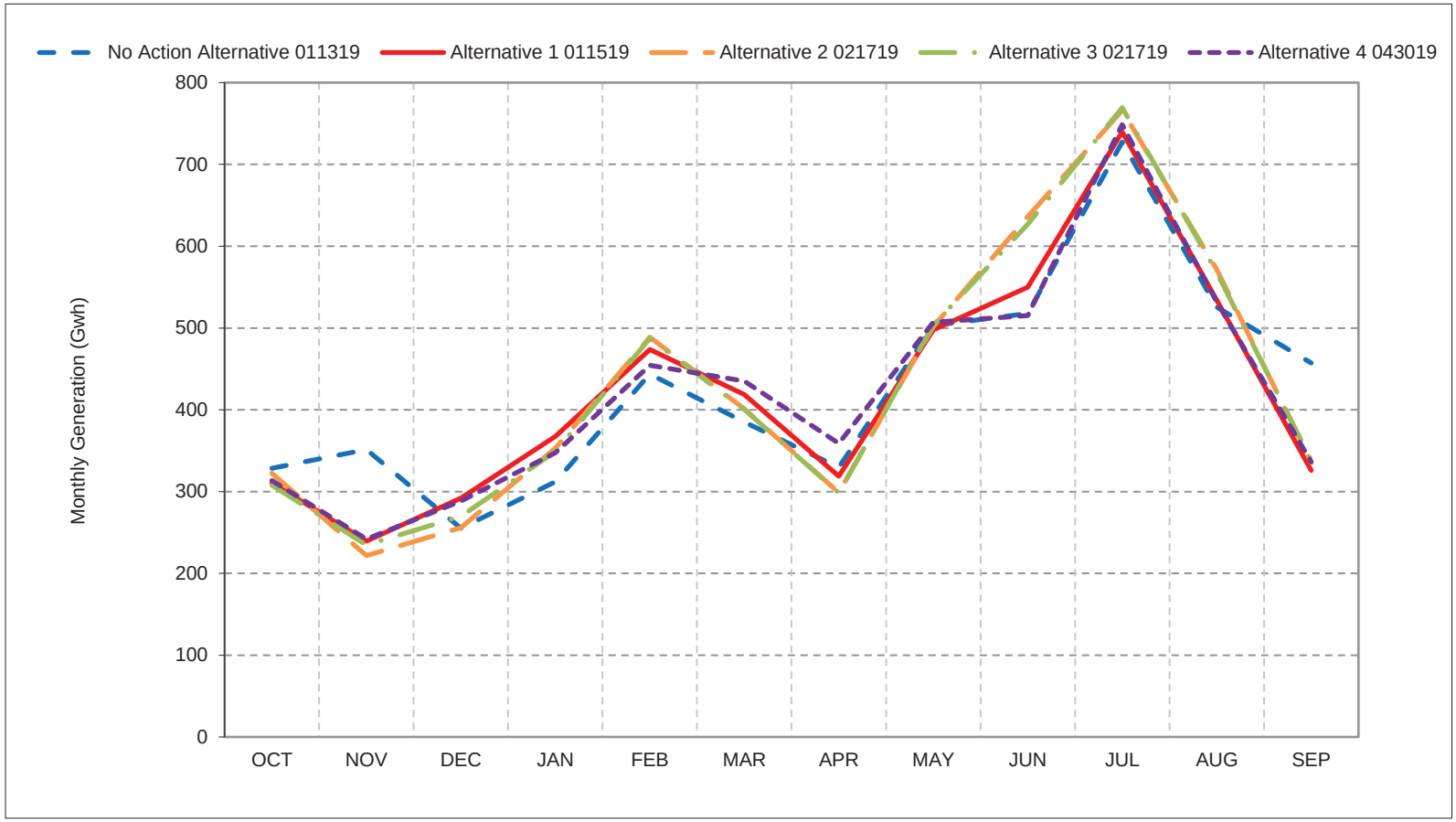
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-2. CVP Total Generation, Wet Year Average Generation



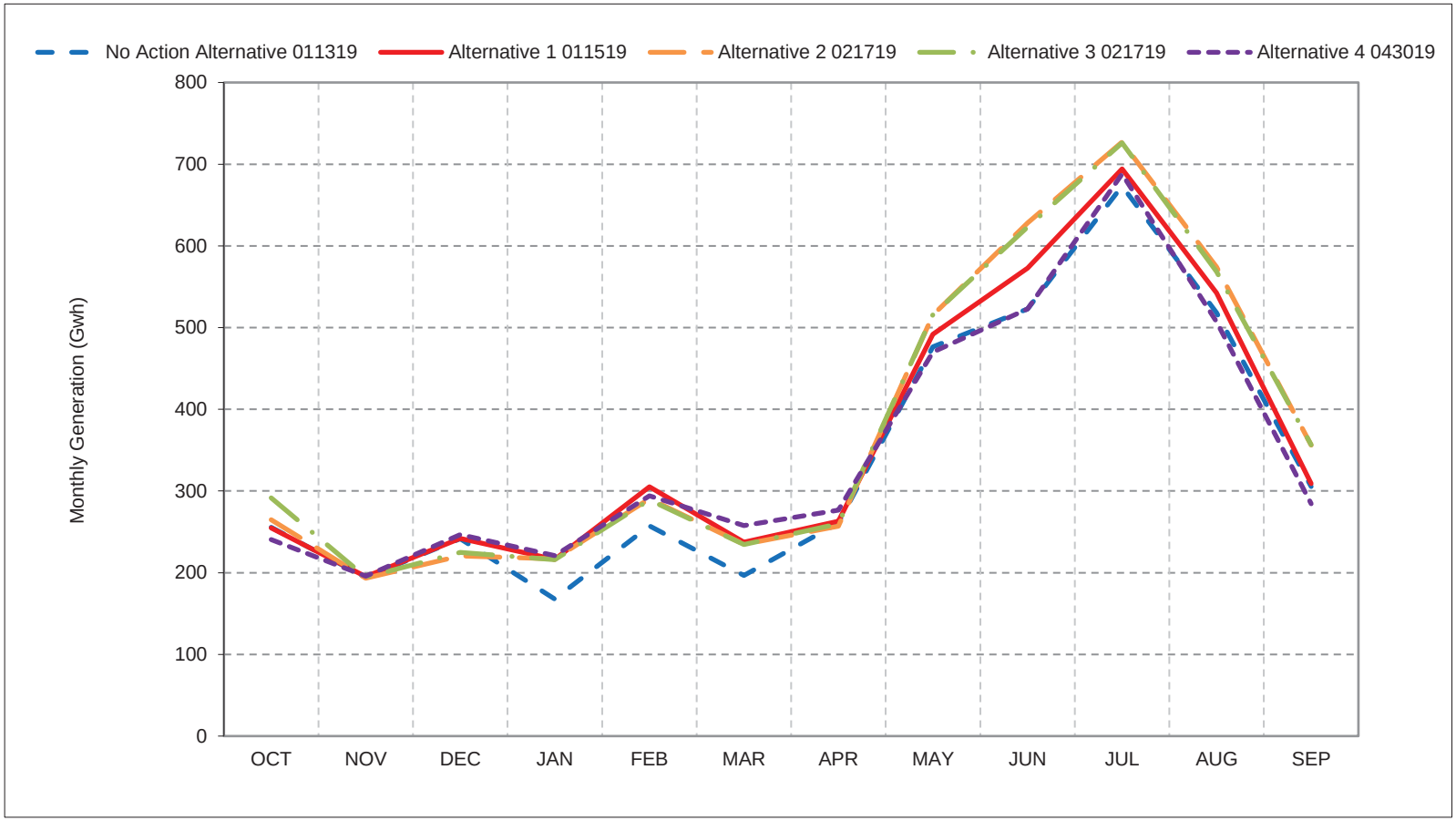
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-3. CVP Total Generation, Above Normal Year Average Generation



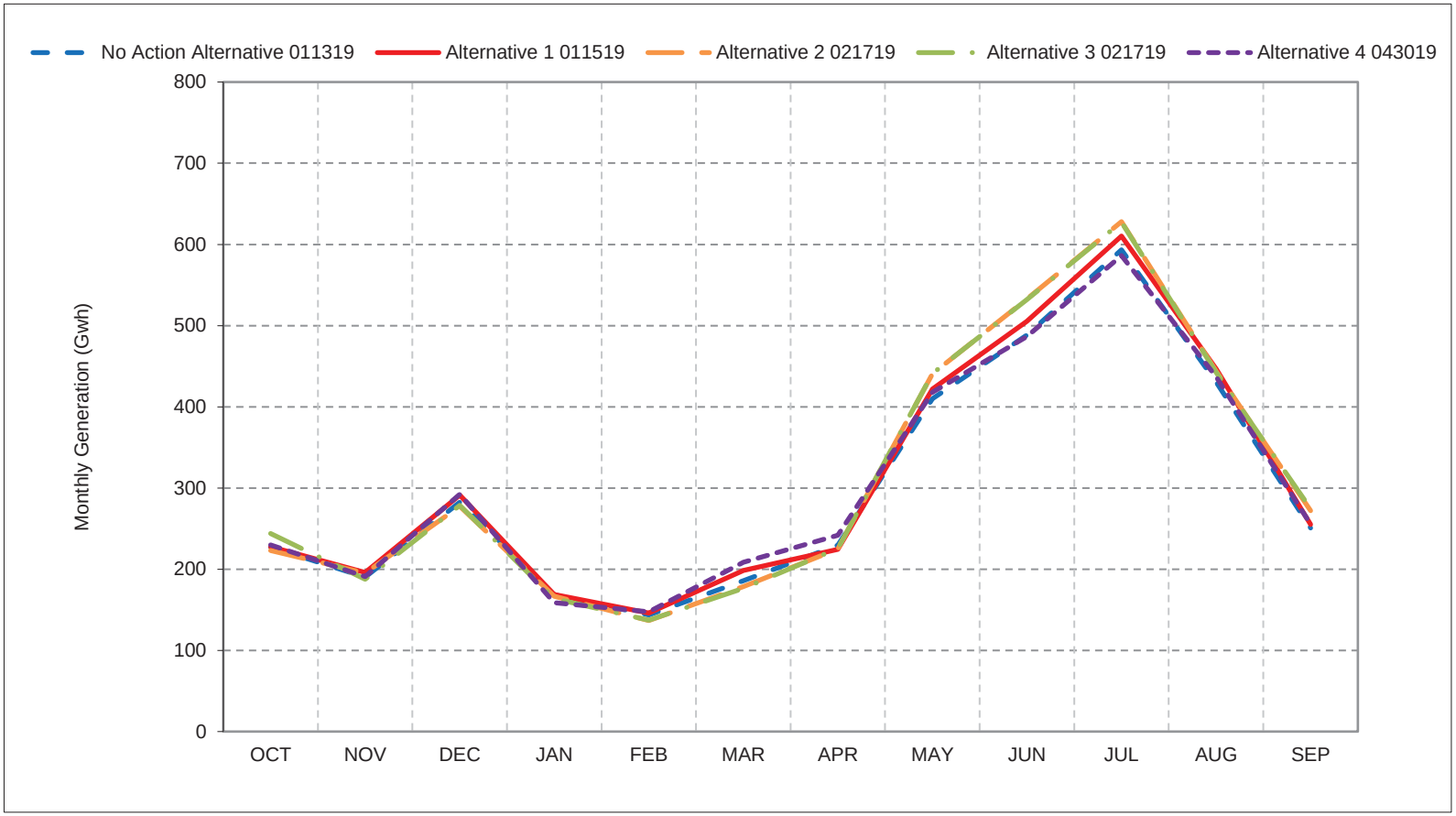
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-4. CVP Total Generation, Below Normal Year Average Generation



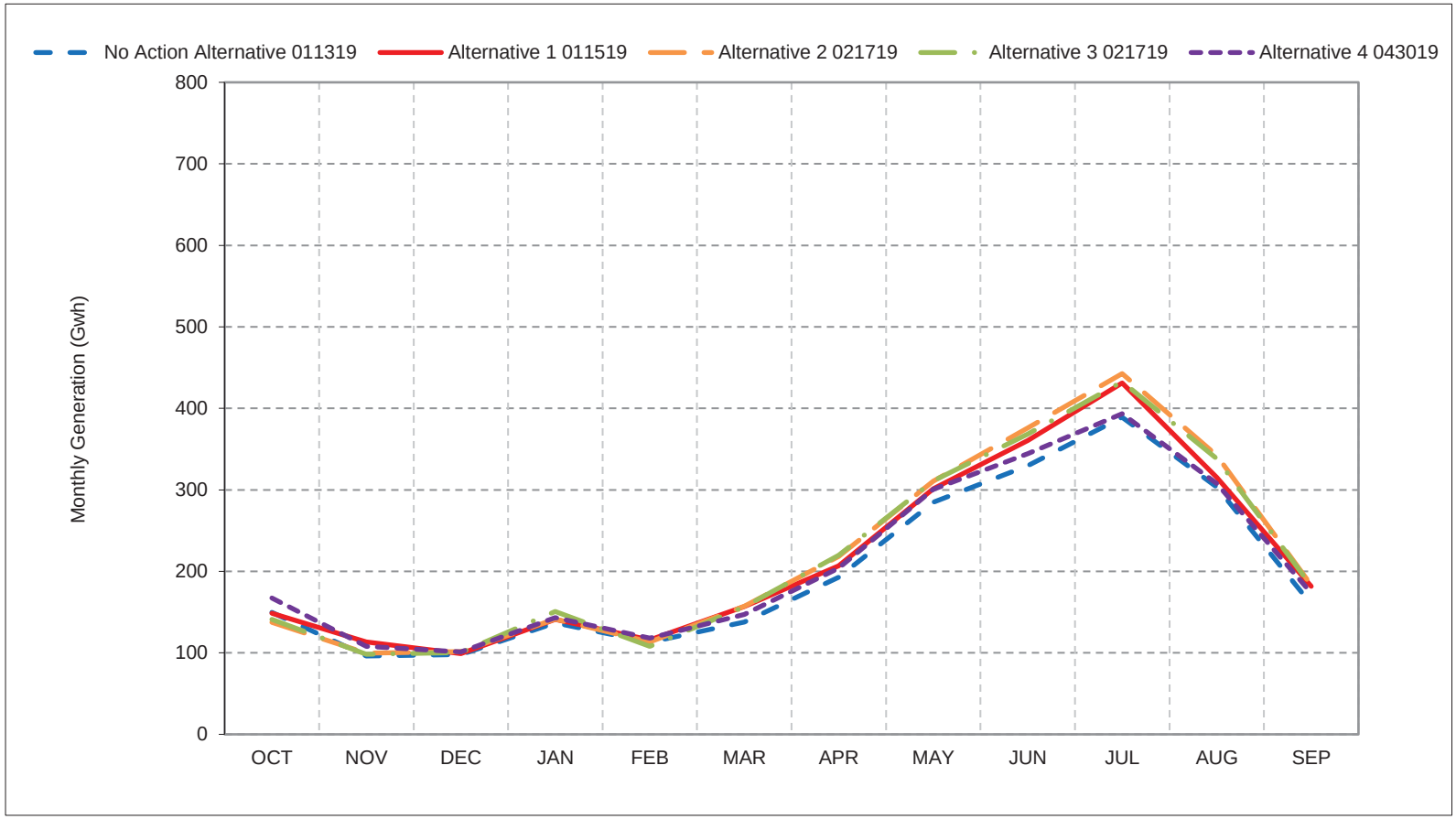
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-5. CVP Total Generation, Dry Year Average Generation



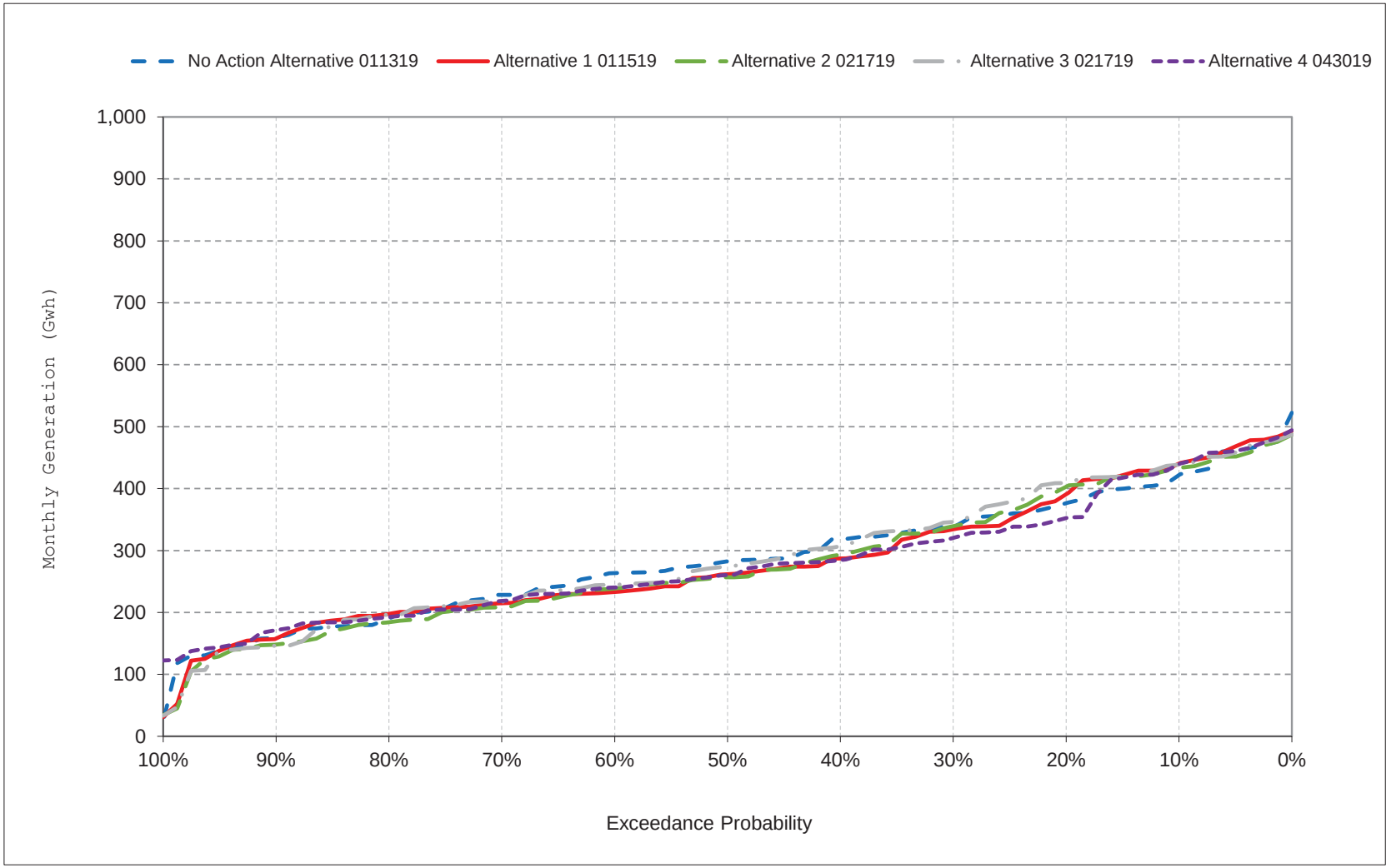
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-6. CVP Total Generation, Critical Year Average Generation



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

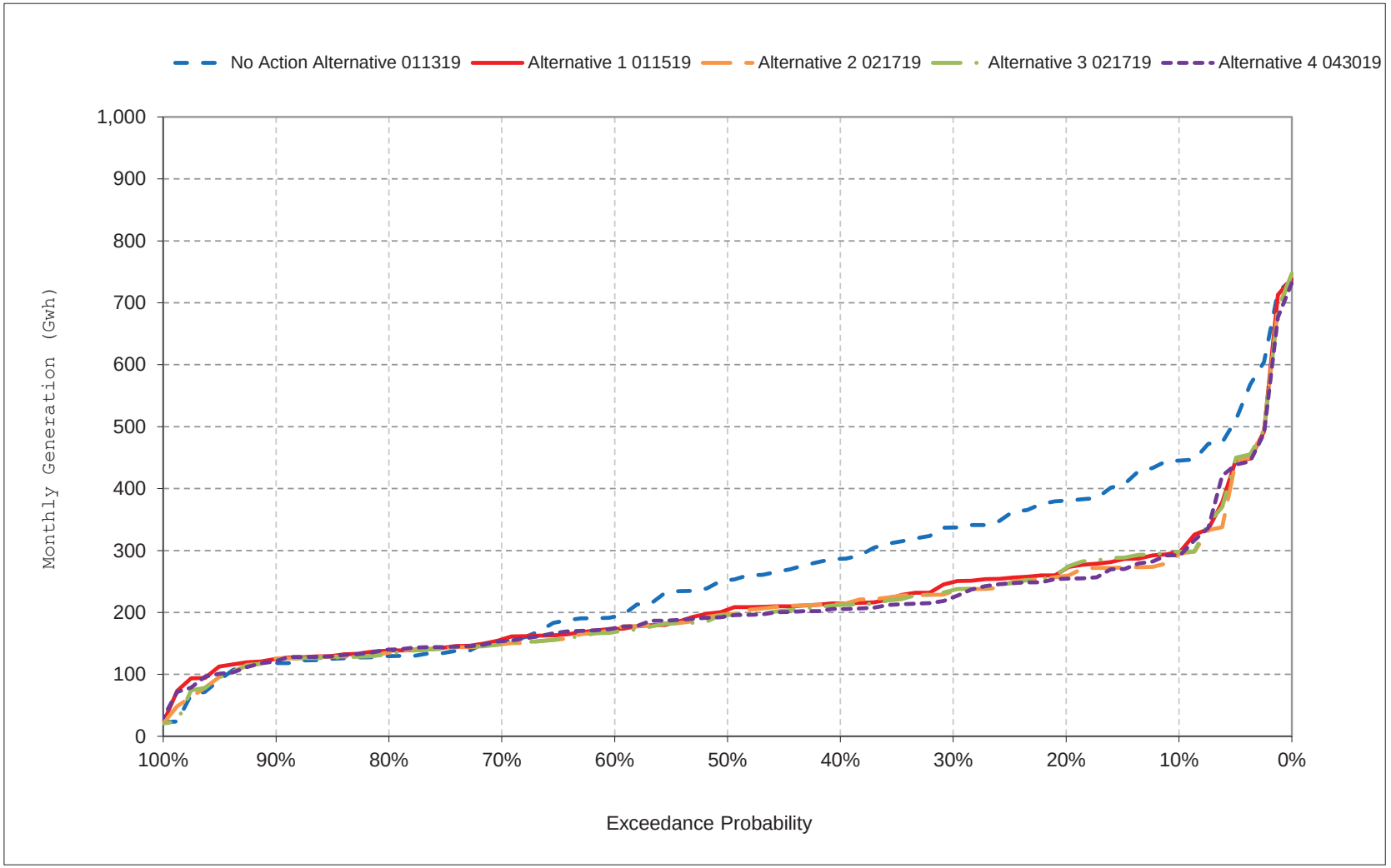
Figure 2-7. CVP Total Generation, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

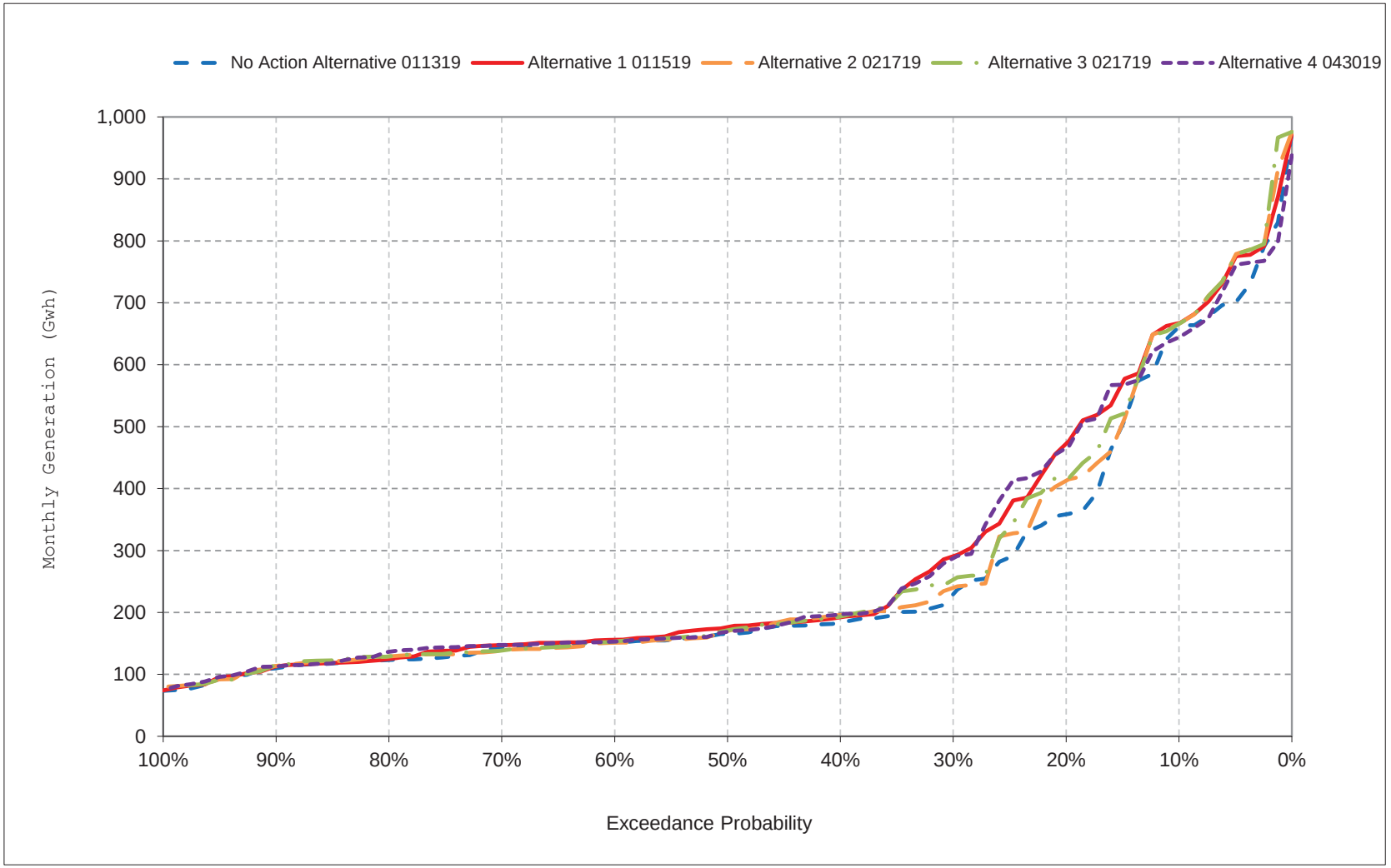
Figure 2-8. CVP Total Generation, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

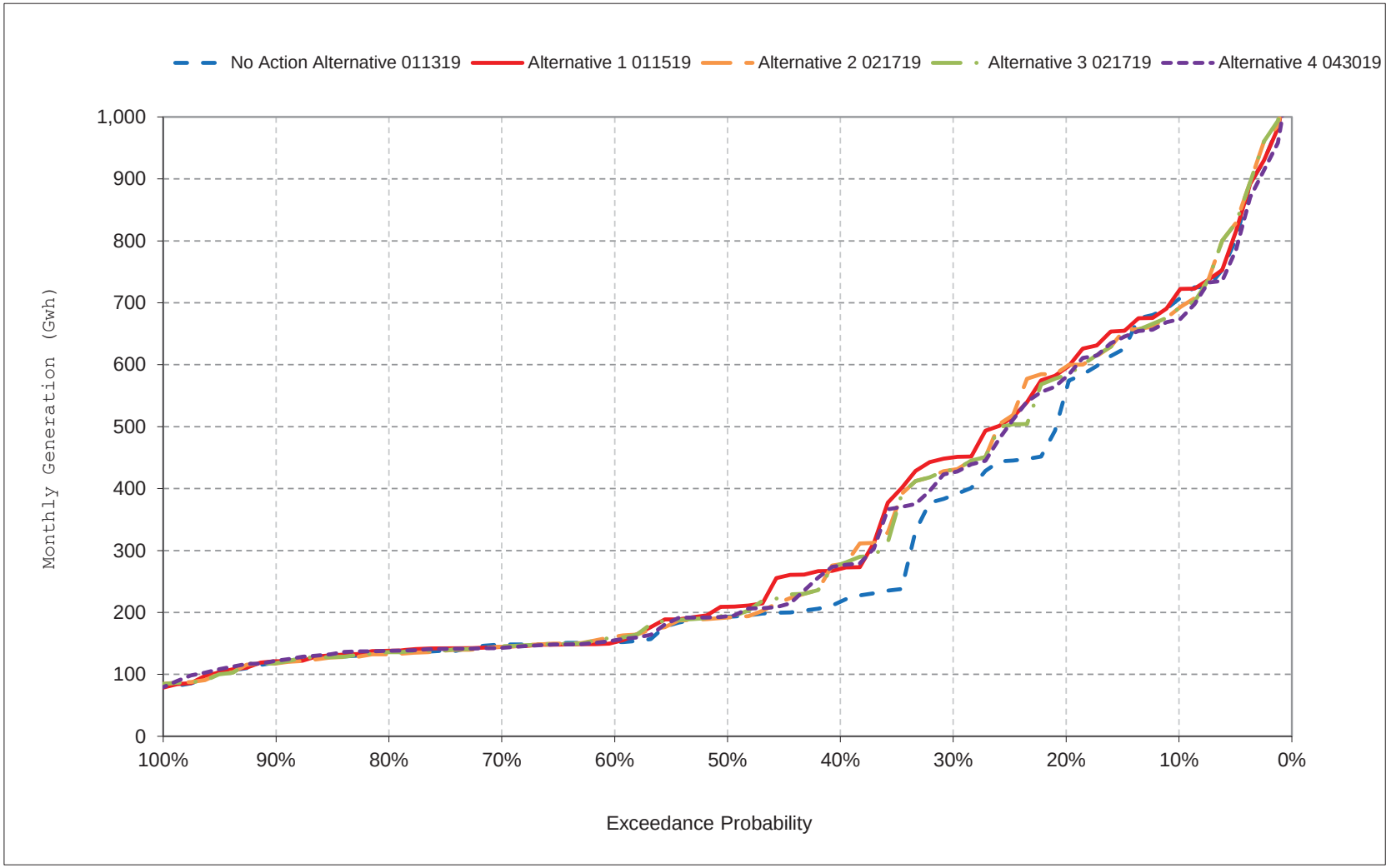
Figure 2-9. CVP Total Generation, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

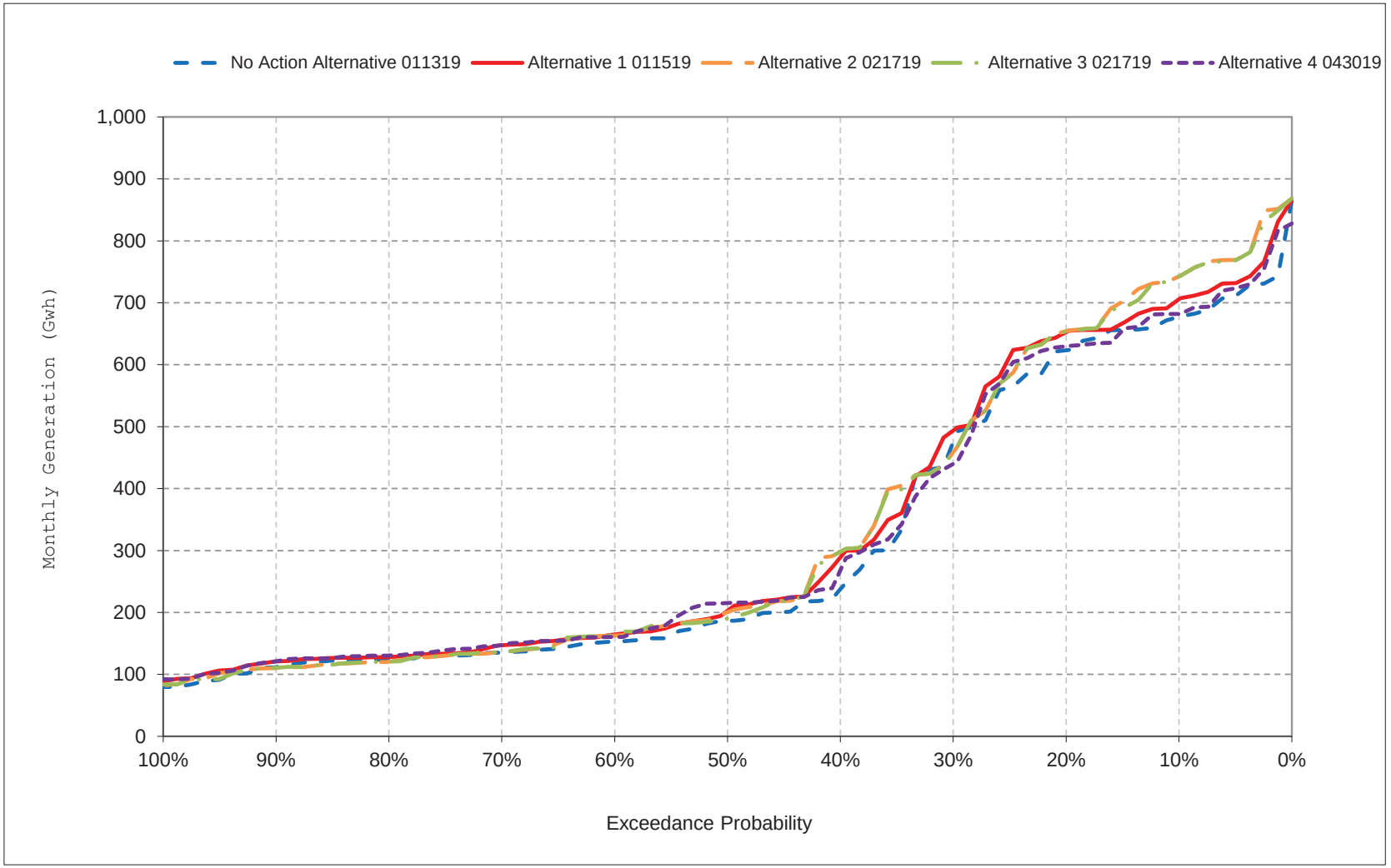
Figure 2-10. CVP Total Generation, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

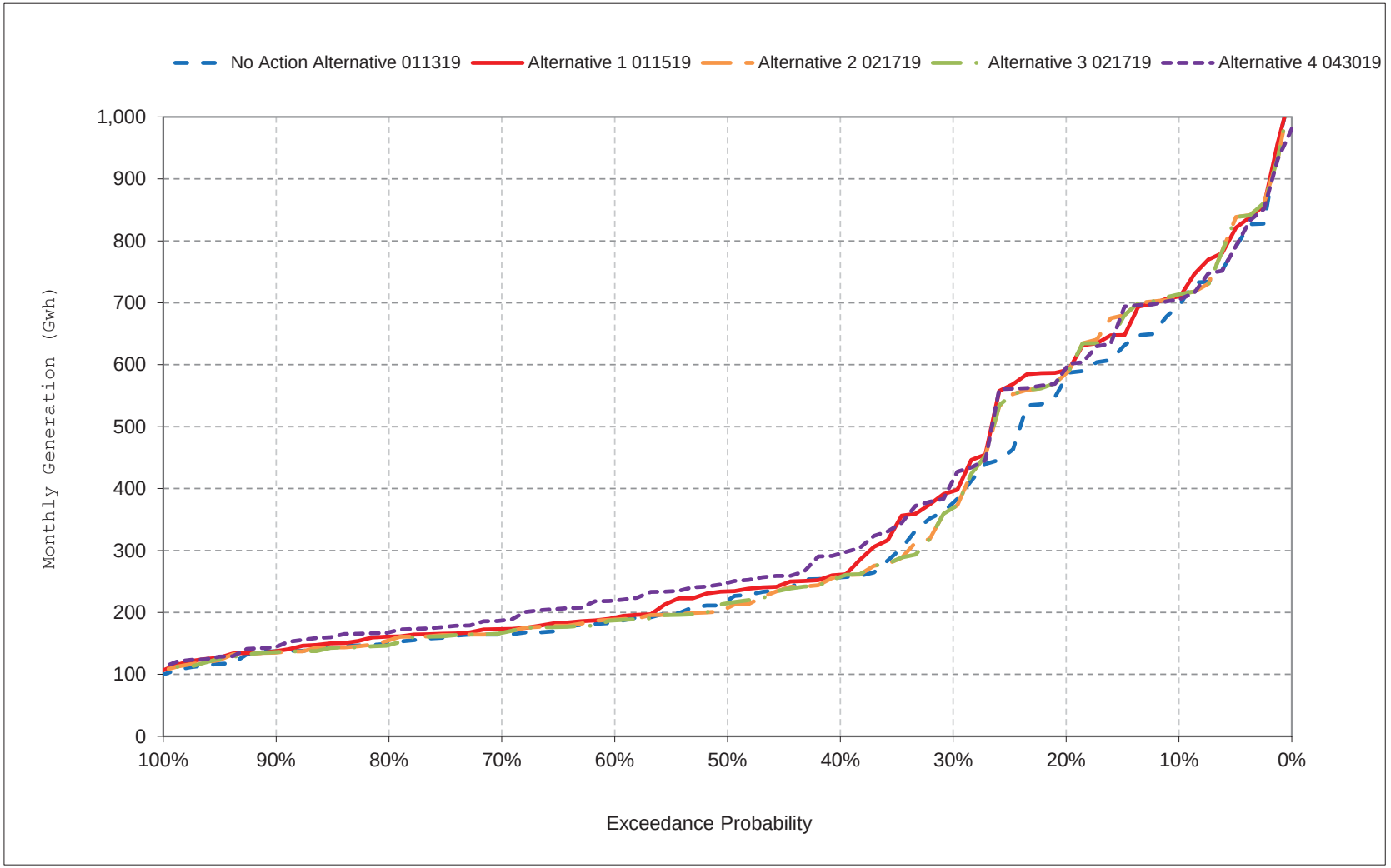
Figure 2-11. CVP Total Generation, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

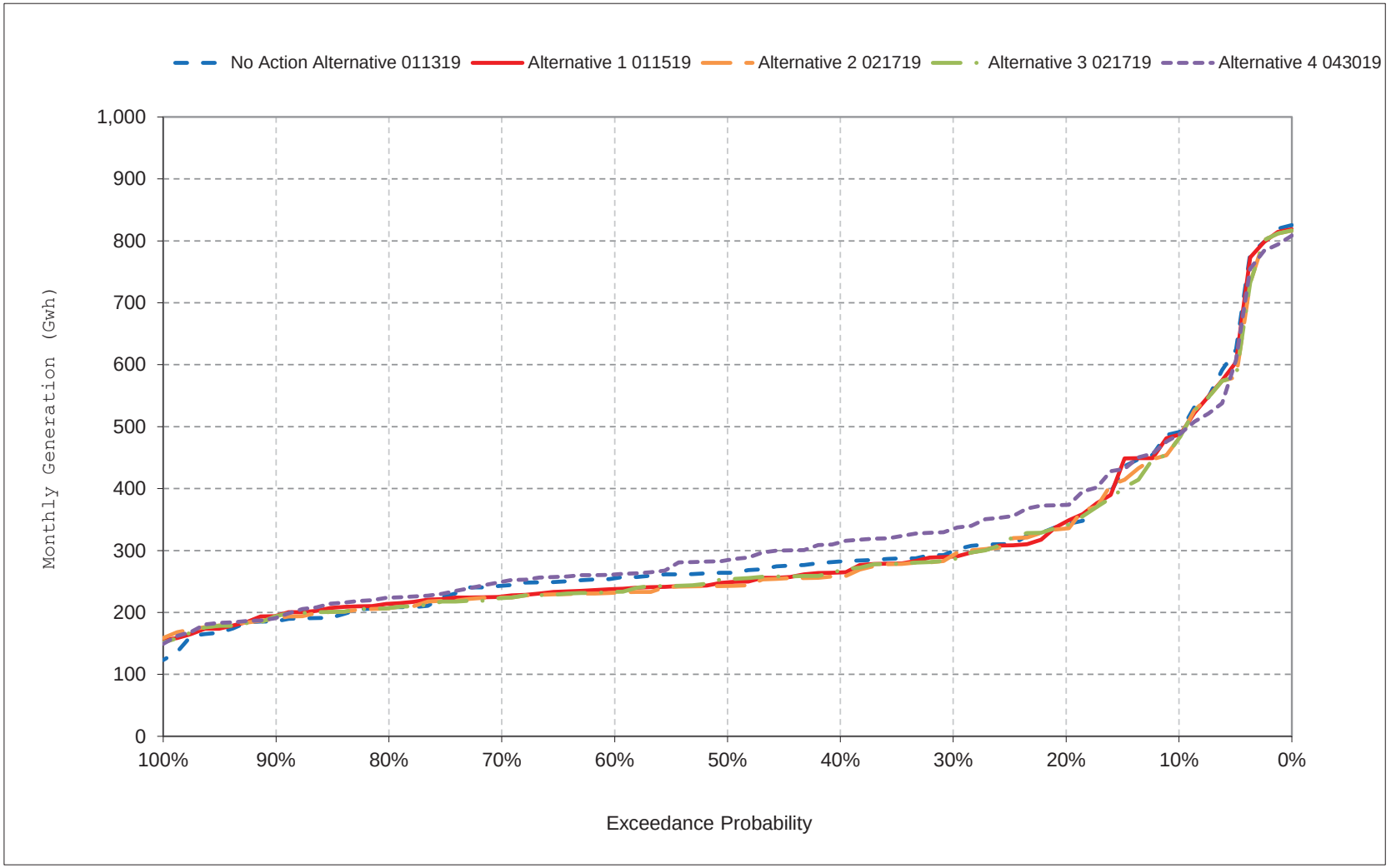
Figure 2-12. CVP Total Generation, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

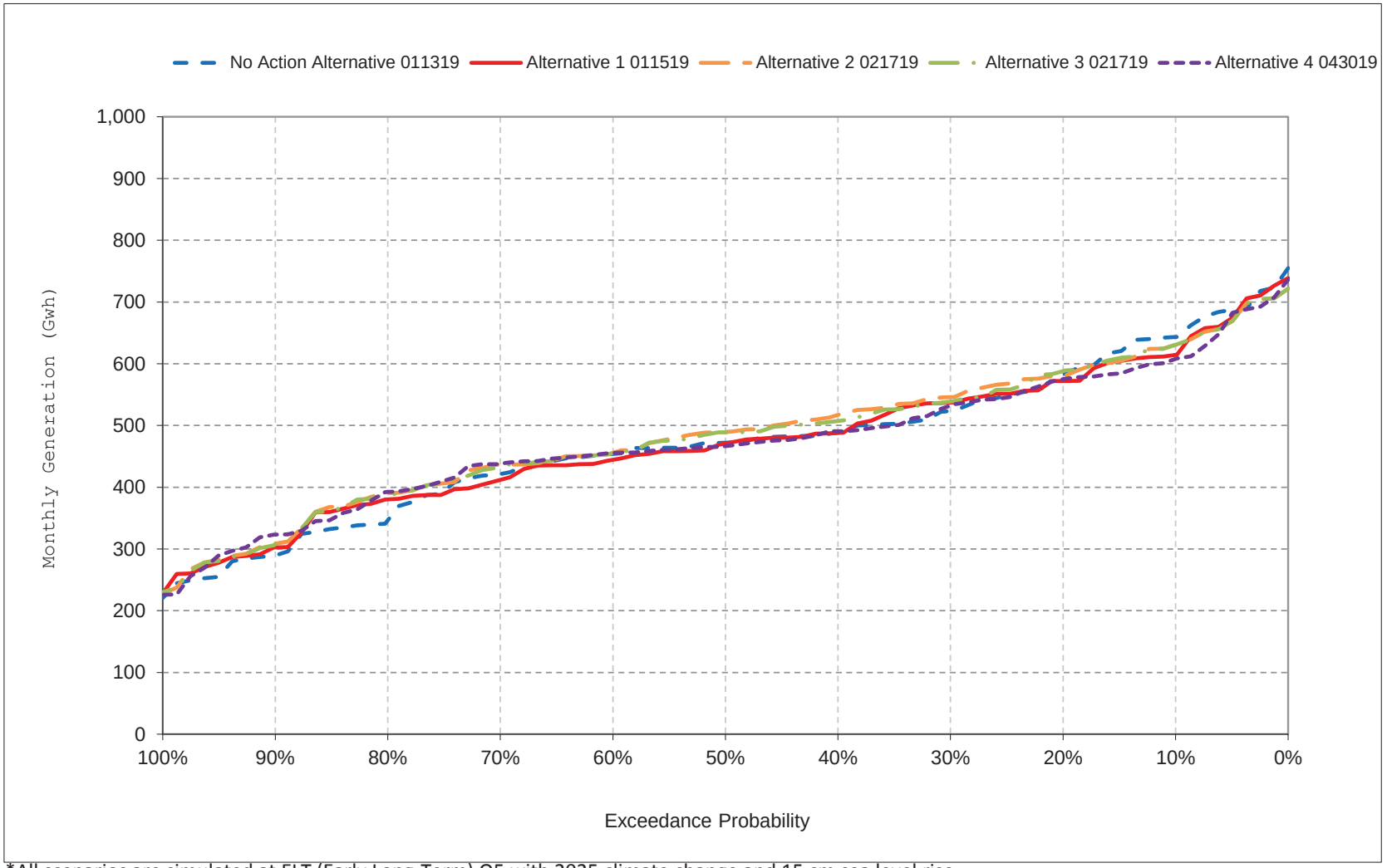
Figure 2-13. CVP Total Generation, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-14. CVP Total Generation, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

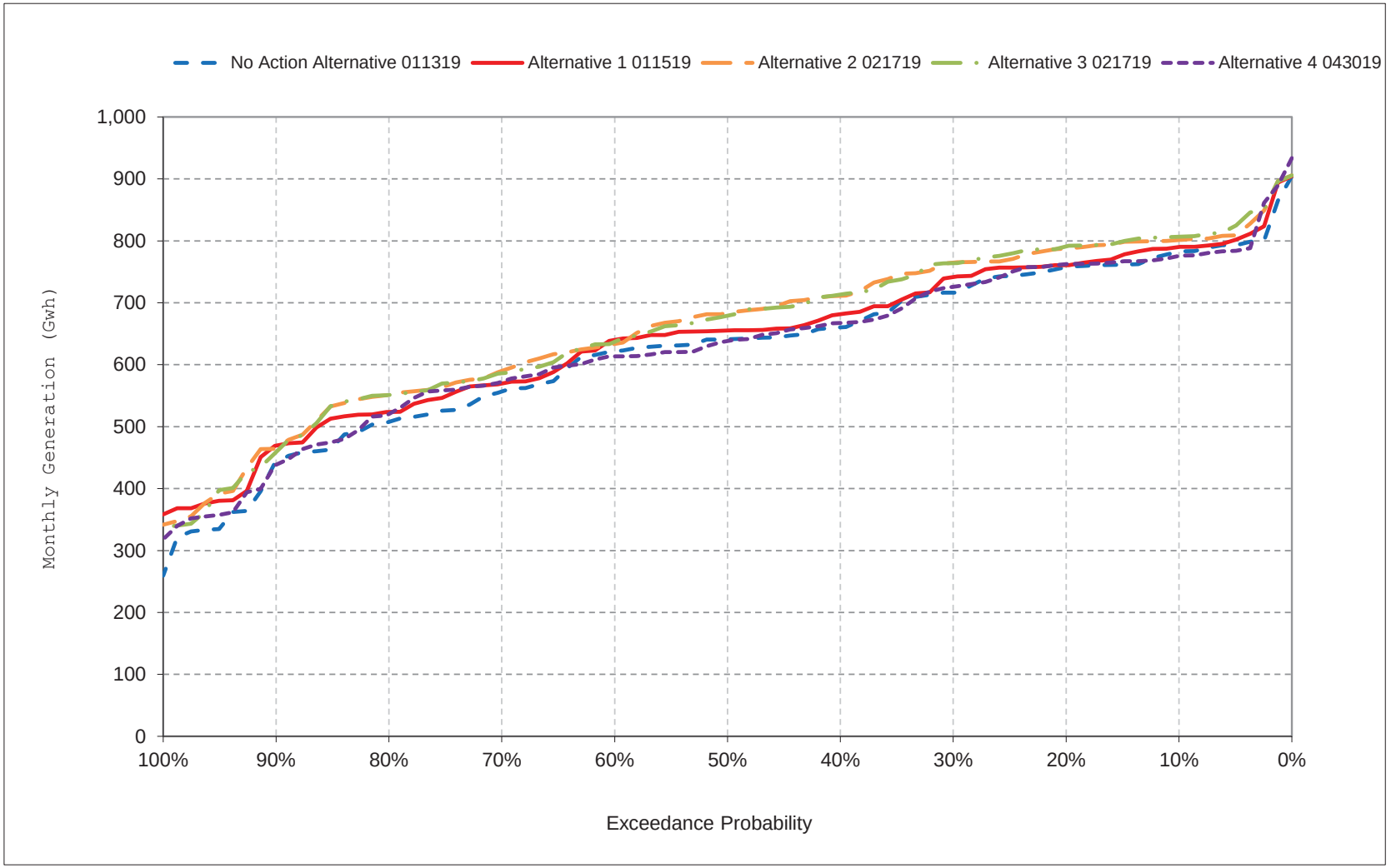
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-15. CVP Total Generation, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-16. CVP Total Generation, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-17. CVP Total Generation, August

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 2-18. CVP Total Generation, September

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 3-1. CVP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	117	176	159	165	155	153	71	77	151	172	158	112
20%	106	152	157	160	150	143	50	56	129	161	151	111
30%	87	142	152	145	143	134	44	52	116	153	145	111
40%	83	131	148	140	135	130	42	49	97	139	139	110
50%	80	113	143	137	122	118	41	47	92	130	126	108
60%	75	98	135	133	112	98	39	44	79	117	119	101
70%	68	83	123	123	92	88	36	42	70	109	102	87
80%	62	68	97	109	75	71	33	38	54	87	92	76
90%	55	48	68	91	56	46	27	32	43	66	74	68
Long Term												
Full Simulation Period[a]	82	112	127	132	115	109	44	52	93	125	121	96
Water Year Types[b,c]												
Wet (32%)	94	146	145	145	139	127	57	72	134	155	147	108
Above Normal (16%)	82	141	150	129	129	128	43	50	109	118	135	109
Below Normal (13%)	88	94	117	129	111	113	38	42	79	125	128	104
Dry (24%)	71	89	119	131	99	105	41	44	67	122	104	87
Critical (15%)	67	65	86	113	76	51	26	34	40	70	72	66

Alternative 1 011519

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	158	151	163	164	152	149	131	122	151	173	159	127
20%	127	142	150	158	147	144	107	119	125	168	158	114
30%	120	134	143	151	138	136	91	101	117	158	155	112
40%	110	126	140	146	132	132	84	94	112	150	149	111
50%	87	115	131	138	127	125	79	84	106	134	136	111
60%	78	88	114	134	122	118	64	74	94	119	128	109
70%	74	73	101	130	116	96	50	64	86	104	107	100
80%	65	61	83	118	109	79	40	55	75	86	96	80
90%	53	43	61	95	82	67	31	47	53	73	77	69
Long Term												
Full Simulation Period[a]	96	103	119	135	125	116	77	85	102	128	130	105
Water Year Types[b,c]												
Wet (32%)	113	139	143	145	130	123	106	115	135	159	157	122
Above Normal (16%)	127	109	117	138	130	124	101	96	111	128	139	111
Below Normal (13%)	90	84	109	140	127	116	67	77	106	134	146	122
Dry (24%)	78	84	118	131	126	122	56	67	83	119	113	90
Critical (15%)	65	65	80	113	108	82	32	43	53	71	73	68

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	41	-25	4	-1	-4	-4	60	45	0	1	1	14
20%	21	-10	-7	-1	-3	1	57	63	-4	7	7	3
30%	33	-8	-9	6	-5	2	47	49	1	5	9	1
40%	27	-5	-9	5	-3	2	42	45	15	11	9	1
50%	8	2	-12	1	5	6	38	37	14	4	9	2
60%	3	-11	-21	1	10	19	25	30	15	2	9	8
70%	6	-10	-22	7	23	8	14	22	16	-4	6	13
80%	4	-8	-13	10	34	9	8	17	21	-1	4	4
90%	-2	-5	-7	4	26	22	4	15	10	7	4	1
Long Term												
Full Simulation Period[a]	15	-10	-8	3	11	7	33	33	10	3	9	8
Water Year Types[b,c]												
Wet (32%)	18	-7	-2	0	-9	-4	49	44	1	4	10	14
Above Normal (16%)	45	-32	-33	9	2	-4	58	46	2	10	3	3
Below Normal (13%)	2	-10	-7	11	16	3	29	35	26	9	18	18
Dry (24%)	7	-5	0	0	27	17	16	23	15	-3	9	4
Critical (15%)	-2	1	-6	0	32	31	6	10	13	1	2	2

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 3-2. CVP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	117	176	159	165	155	153	71	77	151	172	158	112
20%	106	152	157	160	150	143	50	56	129	161	151	111
30%	87	142	152	145	143	134	44	52	116	153	145	111
40%	83	131	148	140	135	130	42	49	97	139	139	110
50%	80	113	143	137	122	118	41	47	92	130	126	108
60%	75	98	135	133	112	98	39	44	79	117	119	101
70%	68	83	123	123	92	88	36	42	70	109	102	87
80%	62	68	97	109	75	71	33	38	54	87	92	76
90%	55	48	68	91	56	46	27	32	43	66	74	68
Long Term												
Full Simulation Period[a]	82	112	127	132	115	109	44	52	93	125	121	96
Water Year Types[b,c]												
Wet (32%)	94	146	145	145	139	127	57	72	134	155	147	108
Above Normal (16%)	82	141	150	129	129	128	43	50	109	118	135	109
Below Normal (13%)	88	94	117	129	111	113	38	42	79	125	128	104
Dry (24%)	71	89	119	131	99	105	41	44	67	122	104	87
Critical (15%)	67	65	86	113	76	51	26	34	40	70	72	66

Alternative 2 021719

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	162	158	167	171	169	172	102	122	153	212	192	142
20%	142	142	164	168	155	152	97	116	147	172	164	123
30%	125	139	159	164	148	149	91	106	146	170	159	114
40%	108	130	156	162	145	141	85	99	141	165	157	112
50%	84	113	151	161	142	123	81	93	131	156	156	112
60%	76	99	141	159	140	106	69	85	110	138	144	111
70%	71	83	124	143	135	88	53	76	90	120	109	100
80%	57	73	109	114	85	72	39	66	73	99	90	89
90%	50	63	80	77	75	67	29	54	54	78	76	77
Long Term												
Full Simulation Period[a]	98	111	137	146	137	119	73	90	114	146	139	109
Water Year Types[b,c]												
Wet (32%)	126	148	155	160	143	122	94	112	146	164	170	118
Above Normal (16%)	149	105	148	157	164	133	91	104	142	158	158	118
Below Normal (13%)	84	102	125	150	123	117	73	91	120	175	165	133
Dry (24%)	62	101	130	141	135	130	56	70	83	130	104	99
Critical (15%)	55	65	109	110	111	82	39	56	59	92	81	75

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	45	-18	8	6	14	20	31	45	2	41	34	30
20%	36	-10	6	8	5	10	47	60	18	10	14	11
30%	38	-3	7	19	5	15	46	55	30	17	14	3
40%	25	-1	7	22	10	11	43	50	44	26	18	2
50%	4	0	7	24	20	4	41	46	40	26	29	3
60%	1	1	6	26	28	8	30	41	31	21	25	10
70%	3	1	1	20	43	-1	17	34	20	11	7	14
80%	-5	5	13	5	10	1	7	28	19	12	-2	13
90%	-6	14	12	-13	19	21	2	21	11	13	3	9
Long Term												
Full Simulation Period[a]	16	-1	10	14	23	11	30	38	21	21	18	13
Water Year Types[b,c]												
Wet (32%)	32	3	10	15	4	-5	37	40	12	9	24	10
Above Normal (16%)	68	-36	-2	29	35	5	48	54	33	40	23	10
Below Normal (13%)	-3	8	8	22	12	5	35	49	41	51	37	29
Dry (24%)	-9	12	11	10	36	26	16	26	16	7	0	13
Critical (15%)	-13	0	23	-2	36	31	12	22	19	22	10	9

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 3-3. CVP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	117	176	159	165	155	153	71	77	151	172	158	112
20%	106	152	157	160	150	143	50	56	129	161	151	111
30%	87	142	152	145	143	134	44	52	116	153	145	111
40%	83	131	148	140	135	130	42	49	97	139	139	110
50%	80	113	143	137	122	118	41	47	92	130	126	108
60%	75	98	135	133	112	98	39	44	79	117	119	101
70%	68	83	123	123	92	88	36	42	70	109	102	87
80%	62	68	97	109	75	71	33	38	54	87	92	76
90%	55	48	68	91	56	46	27	32	43	66	74	68
Long Term												
Full Simulation Period[a]	82	112	127	132	115	109	44	52	93	125	121	96
Water Year Types[b,c]												
Wet (32%)	94	146	145	145	139	127	57	72	134	155	147	108
Above Normal (16%)	82	141	150	129	129	128	43	50	109	118	135	109
Below Normal (13%)	88	94	117	129	111	113	38	42	79	125	128	104
Dry (24%)	71	89	119	131	99	105	41	44	67	122	104	87
Critical (15%)	67	65	86	113	76	51	26	34	40	70	72	66

Alternative 3 021719

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	149	158	169	173	197	171	102	121	153	180	194	149
20%	128	144	163	168	156	152	93	116	147	172	171	121
30%	123	141	160	164	150	148	91	107	146	169	159	113
40%	114	132	156	163	145	138	85	97	140	165	157	112
50%	91	120	150	161	142	119	80	93	129	157	155	112
60%	78	97	141	158	139	94	68	81	105	148	143	111
70%	66	82	133	146	132	86	53	76	88	119	108	102
80%	58	72	114	118	86	72	41	63	73	100	91	87
90%	47	59	86	79	74	67	29	53	54	79	73	76
Long Term												
Full Simulation Period[a]	97	112	139	146	139	117	72	89	113	144	139	109
Water Year Types[b,c]												
Wet (32%)	126	147	157	154	145	127	89	110	144	168	174	115
Above Normal (16%)	136	118	147	161	180	121	93	104	142	151	160	121
Below Normal (13%)	88	101	128	155	115	119	74	91	119	168	161	136
Dry (24%)	65	99	134	142	134	123	55	70	84	129	103	101
Critical (15%)	52	61	109	112	111	83	38	54	58	86	80	74

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	32	-18	10	7	42	18	31	44	2	8	36	37
20%	22	-8	5	8	6	9	43	60	18	11	20	10
30%	36	-1	8	19	7	14	46	56	30	17	14	2
40%	31	1	8	23	10	8	43	48	43	25	18	2
50%	11	7	7	24	20	1	40	46	37	28	29	3
60%	3	-2	6	25	27	-5	29	36	27	31	24	10
70%	-2	-1	10	23	39	-3	17	34	18	10	7	16
80%	-4	3	18	9	11	2	8	25	19	13	-1	11
90%	-9	11	19	-12	18	21	1	21	11	14	-1	8
Long Term												
Full Simulation Period[a]	15	0	12	14	24	8	28	37	20	19	18	13
Water Year Types[b,c]												
Wet (32%)	32	1	12	9	6	-1	32	38	10	12	27	7
Above Normal (16%)	54	-23	-3	32	52	-7	50	55	33	33	24	13
Below Normal (13%)	0	7	11	27	4	6	36	48	39	43	33	32
Dry (24%)	-7	10	15	11	35	18	15	26	16	7	0	14
Critical (15%)	-15	-4	23	0	36	32	12	21	18	16	9	7

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 3-4. CVP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	117	176	159	165	155	153	71	77	151	172	158	112
20%	106	152	157	160	150	143	50	56	129	161	151	111
30%	87	142	152	145	143	134	44	52	116	153	145	111
40%	83	131	148	140	135	130	42	49	97	139	139	110
50%	80	113	143	137	122	118	41	47	92	130	126	108
60%	75	98	135	133	112	98	39	44	79	117	119	101
70%	68	83	123	123	92	88	36	42	70	109	102	87
80%	62	68	97	109	75	71	33	38	54	87	92	76
90%	55	48	68	91	56	46	27	32	43	66	74	68
Long Term												
Full Simulation Period[a]	82	112	127	132	115	109	44	52	93	125	121	96
Water Year Types[b,c]												
Wet (32%)	94	146	145	145	139	127	57	72	134	155	147	108
Above Normal (16%)	82	141	150	129	129	128	43	50	109	118	135	109
Below Normal (13%)	88	94	117	129	111	113	38	42	79	125	128	104
Dry (24%)	71	89	119	131	99	105	41	44	67	122	104	87
Critical (15%)	67	65	86	113	76	51	26	34	40	70	72	66

Alternative 4 043019

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	150	145	159	164	152	92	80	115	146	168	156	111
20%	135	137	154	160	146	67	73	69	121	155	152	109
30%	120	129	145	149	133	55	58	55	110	139	132	107
40%	92	122	139	144	128	40	49	49	101	123	121	105
50%	83	102	131	139	122	33	41	42	90	111	115	104
60%	72	87	114	133	113	30	32	36	83	103	102	96
70%	68	72	101	126	107	28	26	31	76	93	89	78
80%	60	62	84	118	78	26	23	27	67	81	82	72
90%	51	43	51	91	33	23	16	20	30	38	51	65
Long Term												
Full Simulation Period[a]	94	98	119	134	115	49	46	51	91	111	111	96
Water Year Types[b,c]												
Wet (32%)	121	129	140	145	131	78	73	82	129	151	146	118
Above Normal (16%)	126	104	121	147	107	51	53	53	103	112	123	106
Below Normal (13%)	72	85	116	141	124	35	37	38	84	109	114	96
Dry (24%)	68	84	119	121	112	35	30	35	76	106	94	82
Critical (15%)	66	62	73	112	86	23	18	20	30	37	50	59

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	33	-32	0	-1	-3	-61	9	38	-5	-4	-2	-1
20%	29	-16	-3	0	-4	-76	22	13	-9	-6	2	-3
30%	33	-13	-6	5	-10	-79	13	4	-6	-14	-13	-4
40%	9	-10	-9	4	-8	-90	7	0	4	-17	-18	-5
50%	3	-11	-12	2	0	-86	1	-5	-1	-19	-11	-4
60%	-3	-11	-21	0	1	-68	-6	-9	4	-14	-17	-5
70%	1	-11	-22	2	14	-60	-10	-11	6	-16	-13	-9
80%	-1	-6	-13	9	3	-45	-10	-11	13	-7	-10	-4
90%	-4	-5	-16	1	-23	-23	-11	-12	-13	-28	-23	-3
Long Term												
Full Simulation Period[a]	12	-14	-8	2	0	-60	2	-1	-1	-13	-10	-1
Water Year Types[b,c]												
Wet (32%)	27	-17	-5	0	-8	-50	16	10	-5	-4	-1	10
Above Normal (16%)	44	-37	-29	19	-21	-77	10	3	-7	-6	-13	-3
Below Normal (13%)	-16	-9	0	12	13	-77	-1	-4	5	-16	-15	-8
Dry (24%)	-3	-4	1	-10	13	-70	-11	-9	9	-17	-10	-5
Critical (15%)	-1	-3	-13	0	10	-28	-9	-13	-10	-33	-21	-7

a Based on the 82-year simulation period.

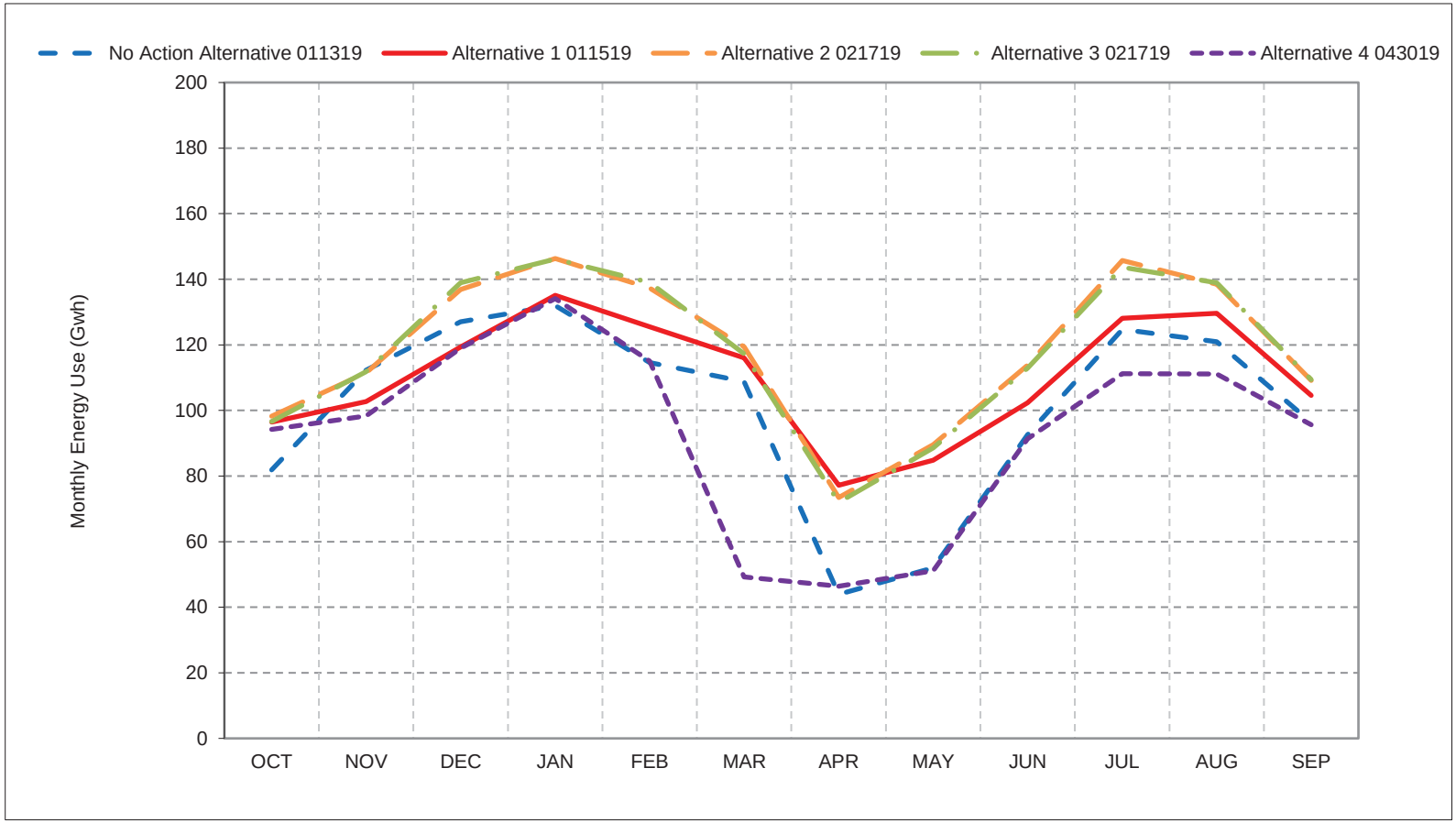
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

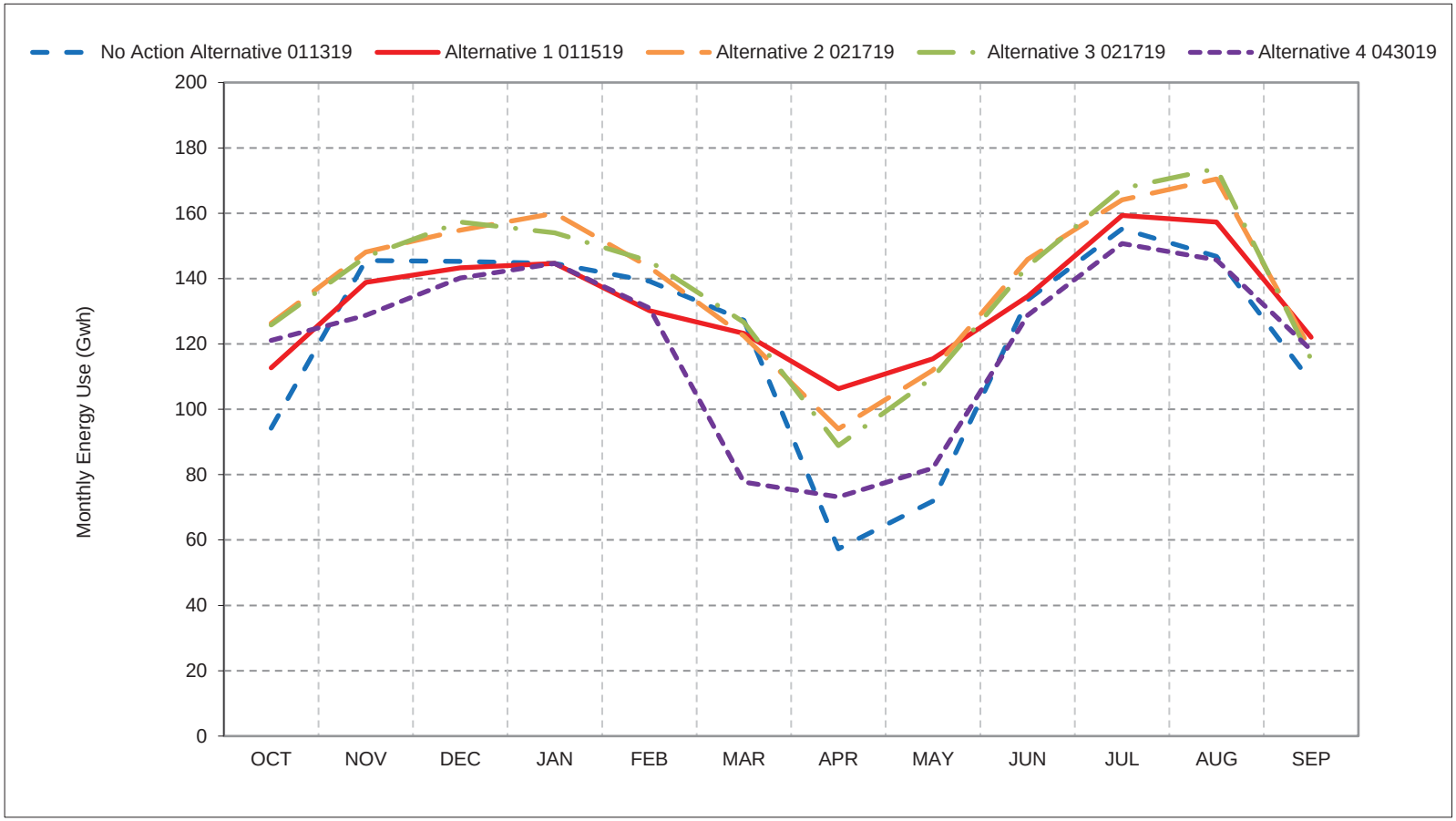
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-1. CVP Total Energy Use, Long-Term Average Energy Use



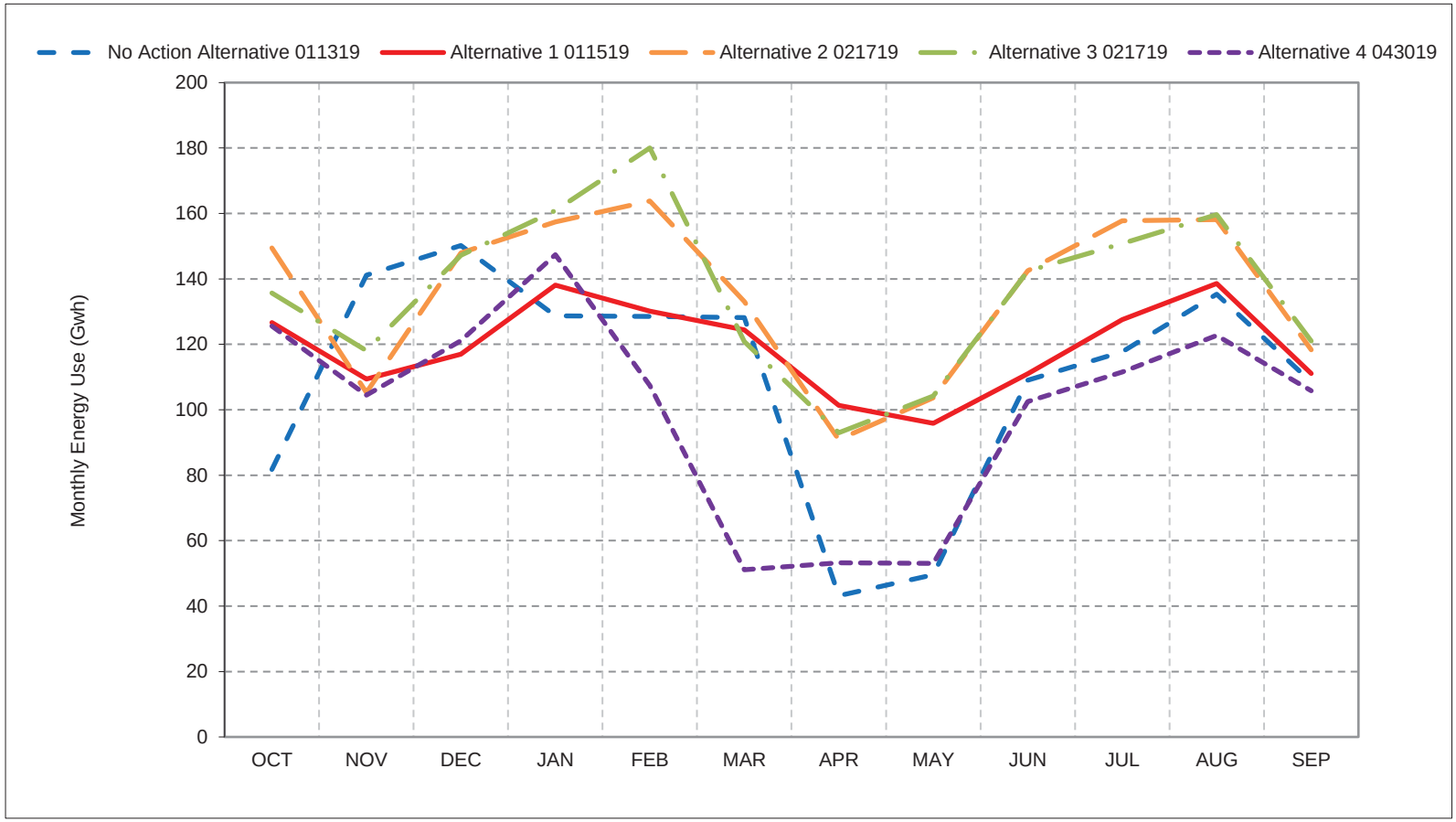
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-2. CVP Total Energy Use, Wet Year Average Energy Use



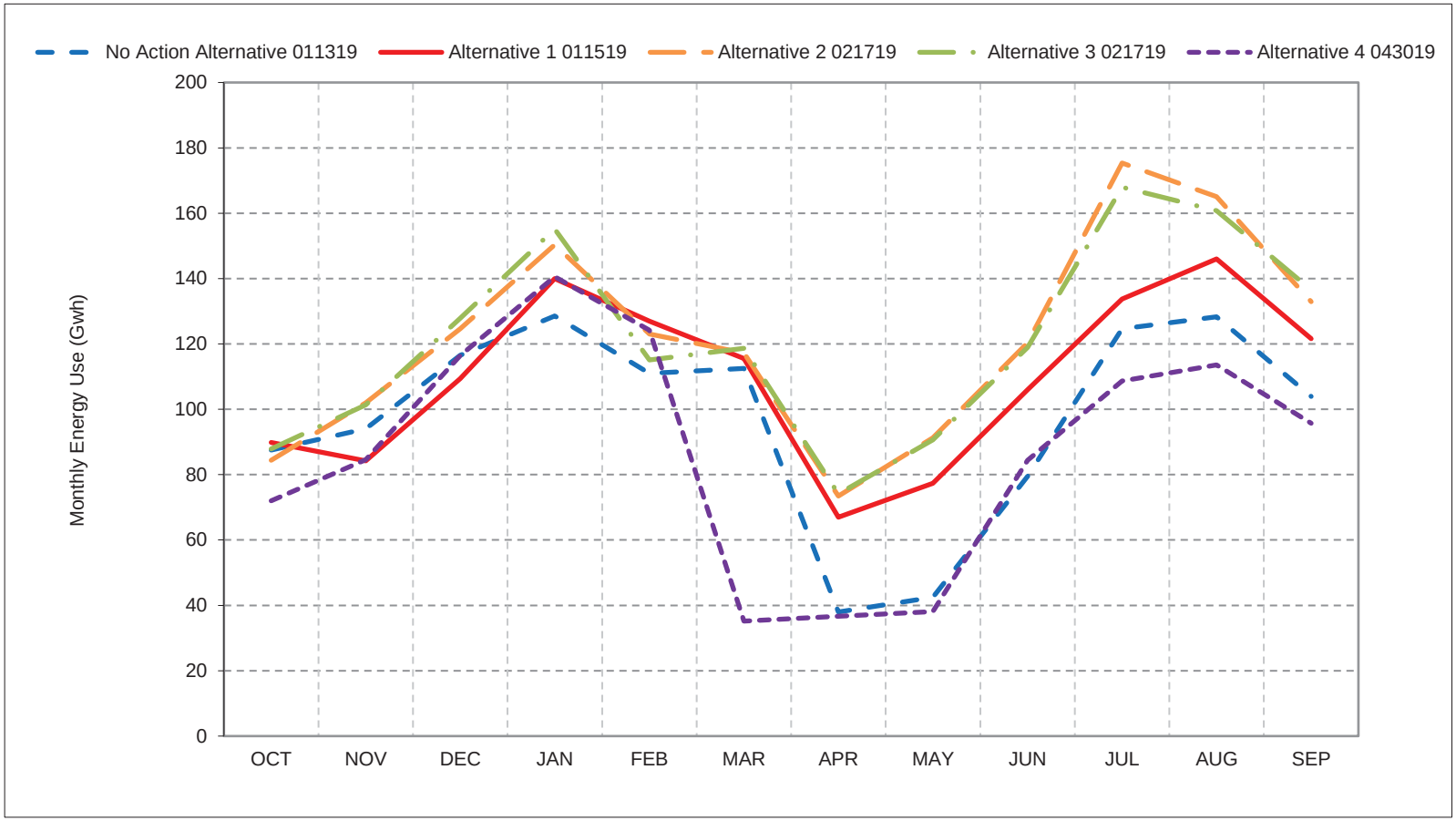
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-3. CVP Total Energy Use, Above Normal Year Average Energy Use



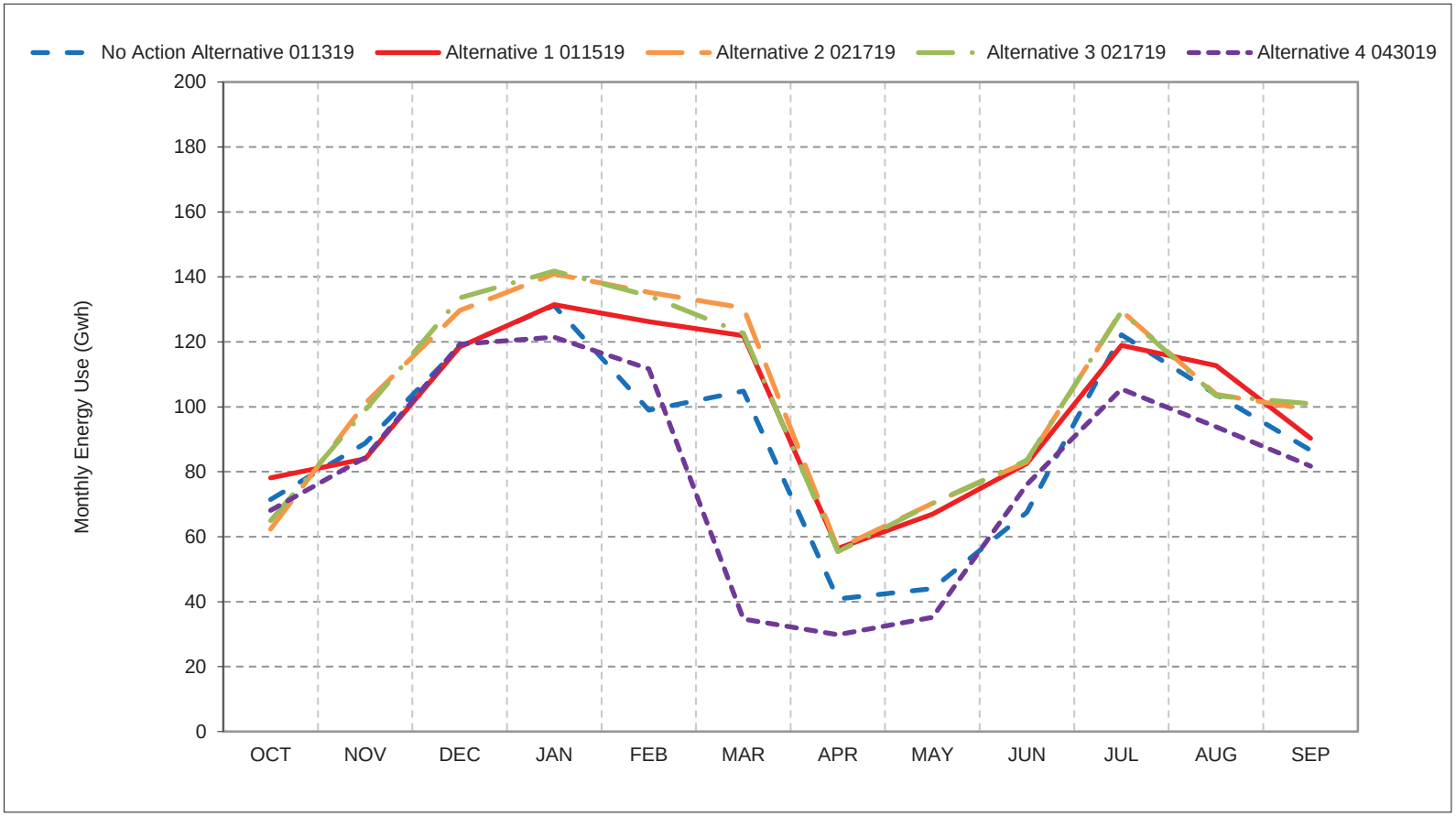
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-4. CVP Total Energy Use, Below Normal Year Average Energy Use



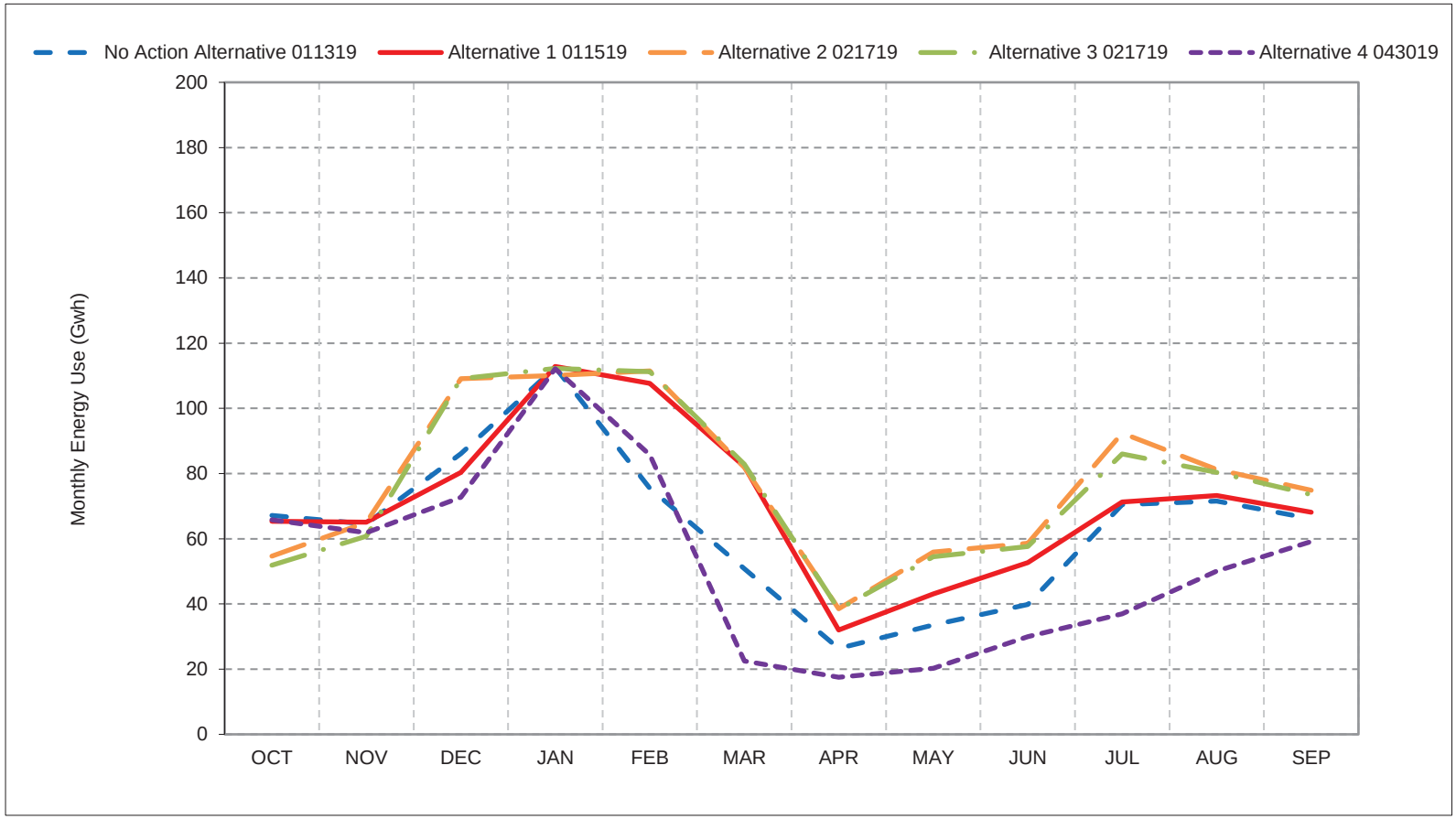
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-5. CVP Total Energy Use, Dry Year Average Energy Use



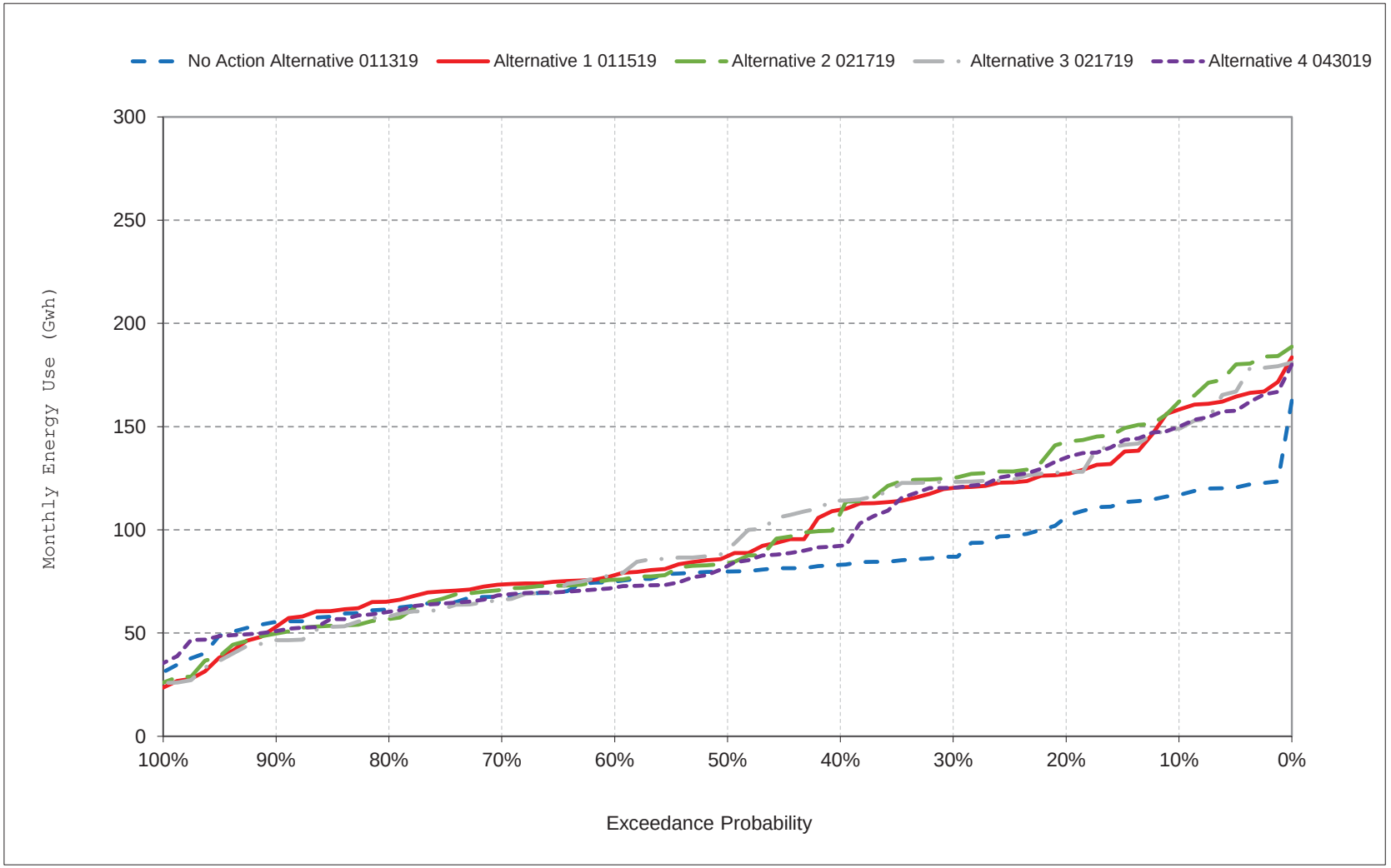
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-6. CVP Total Energy Use, Critical Year Average Energy Use



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

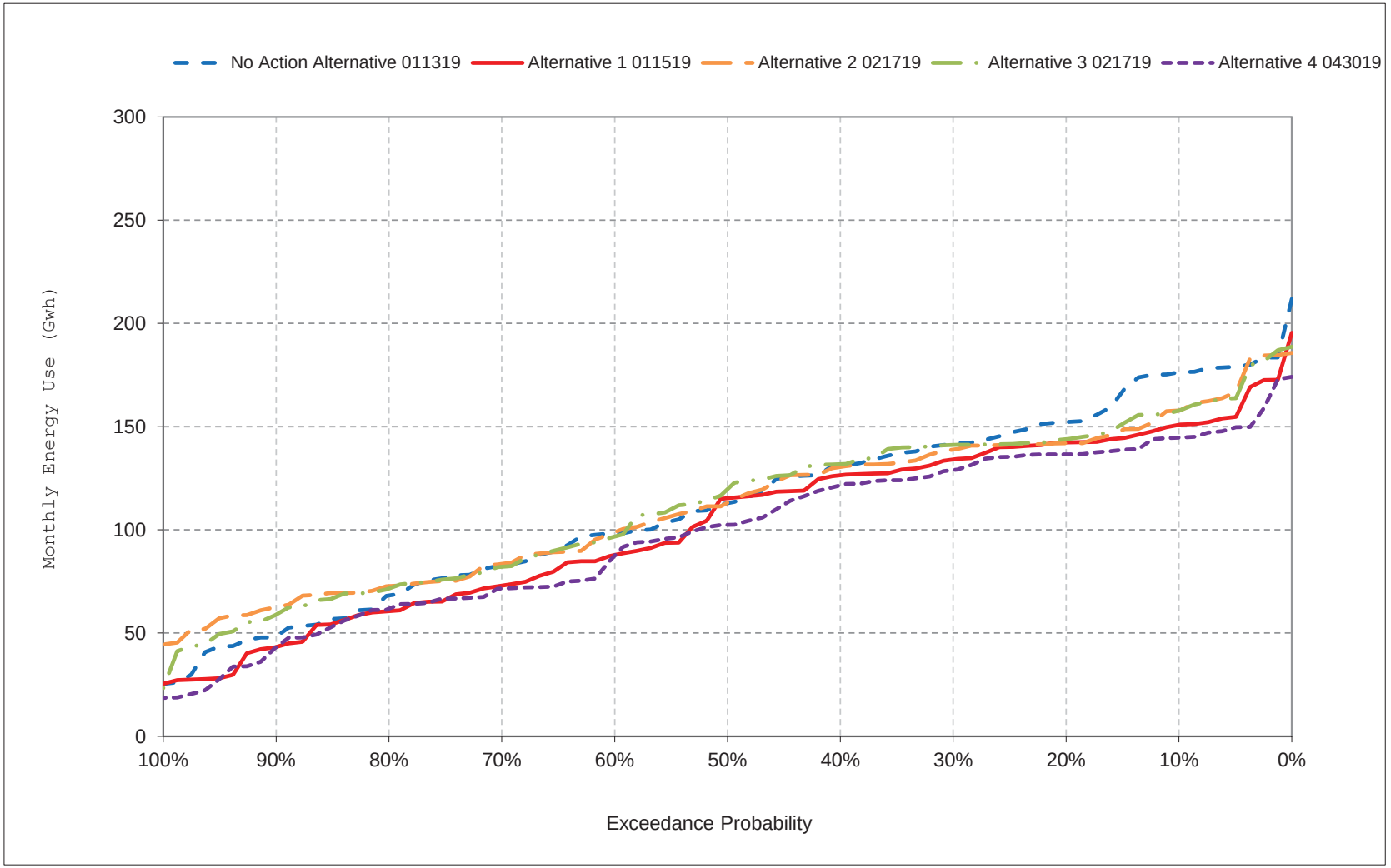
Figure 3-7. CVP Total Energy Use, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-8. CVP Total Energy Use, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

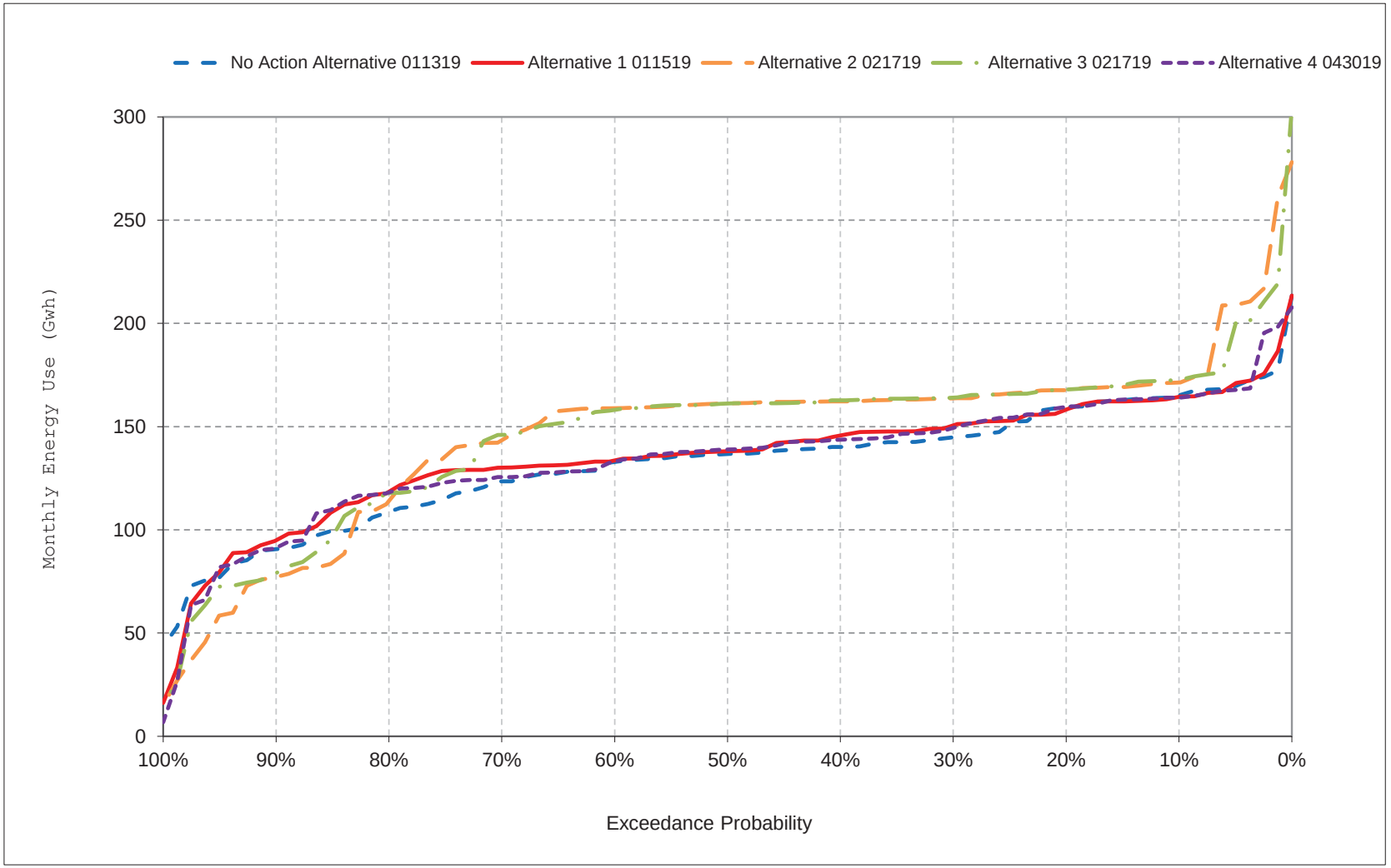
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-9. CVP Total Energy Use, December

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

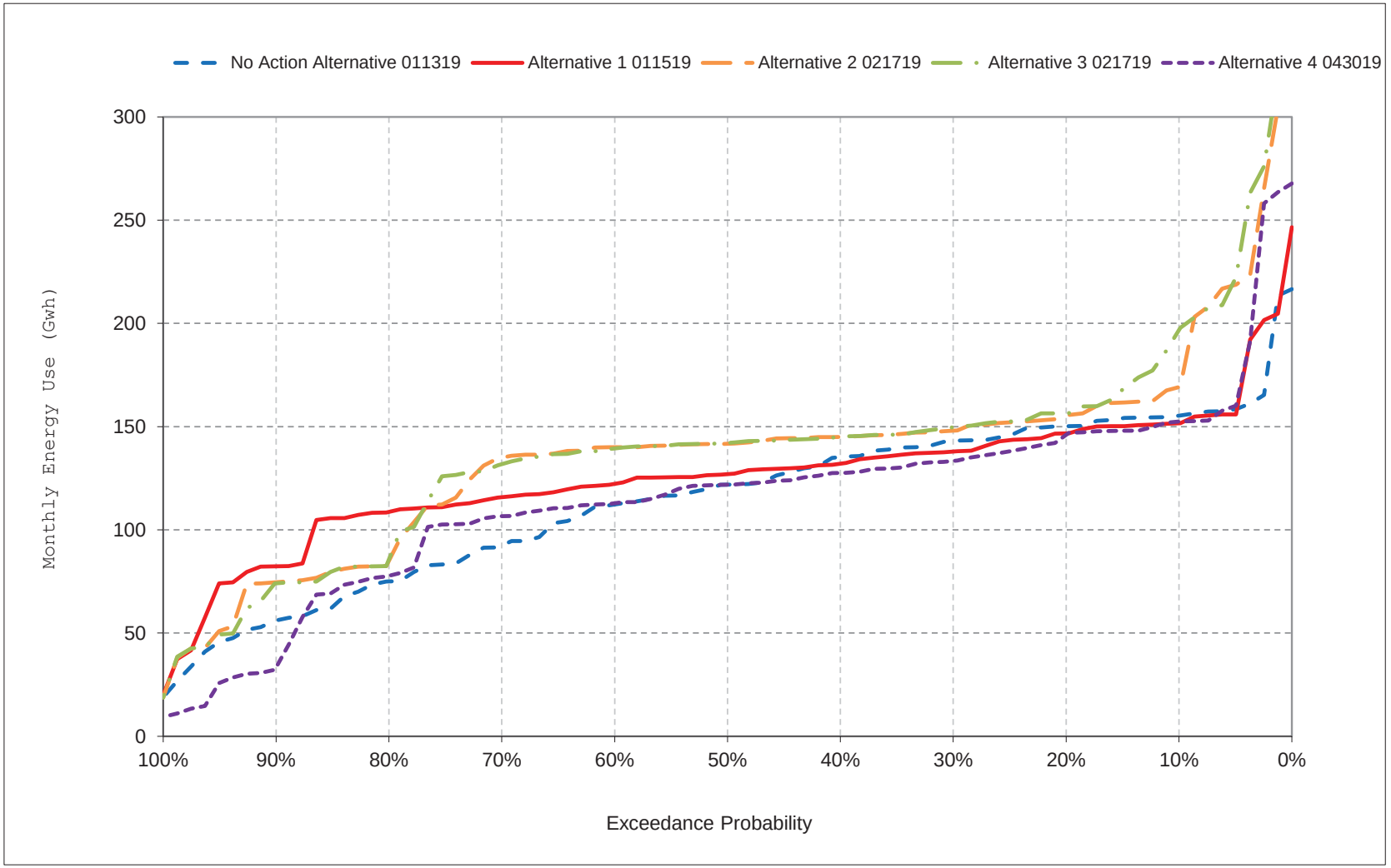
Figure 3-10. CVP Total Energy Use, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

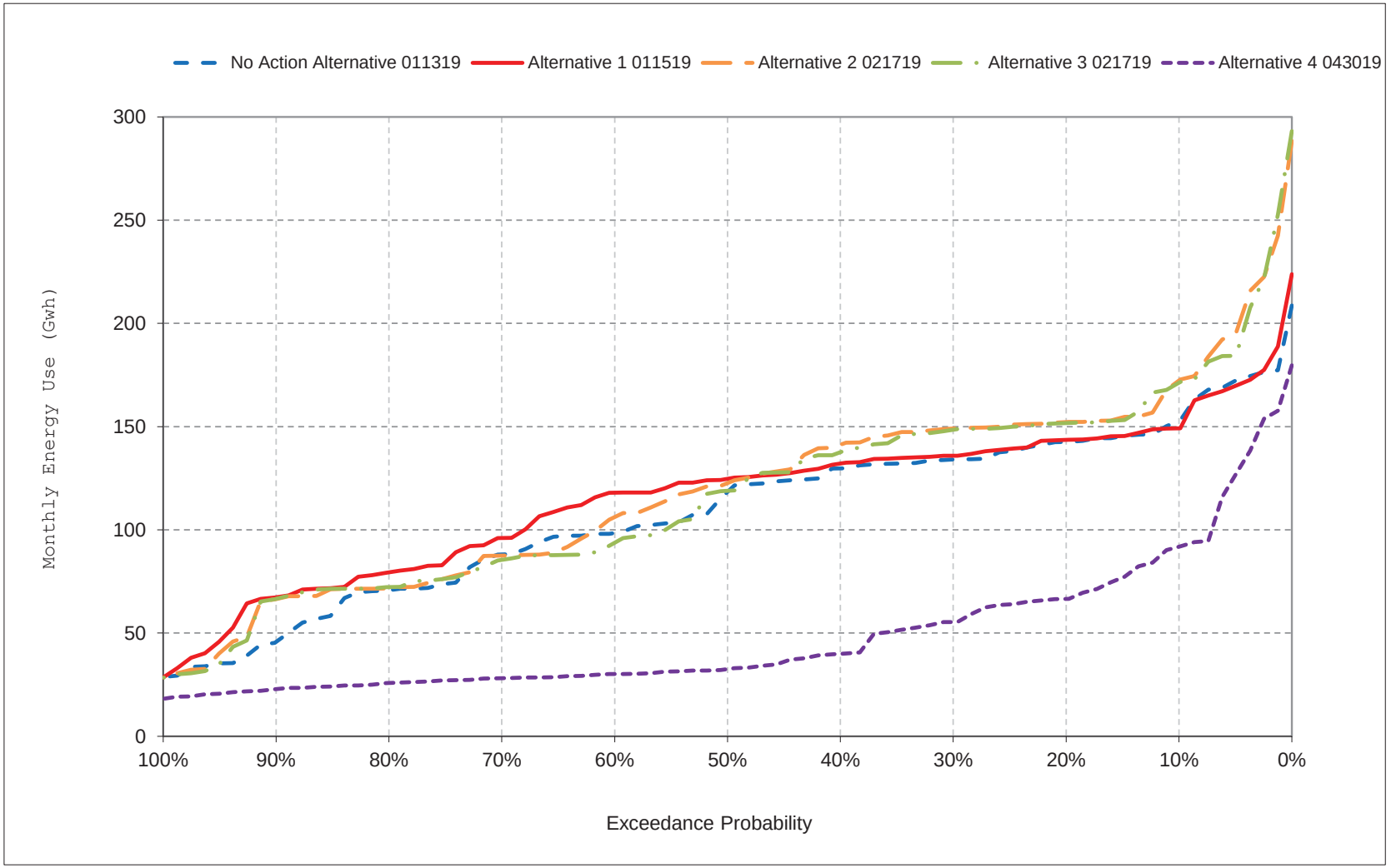
Figure 3-11. CVP Total Energy Use, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

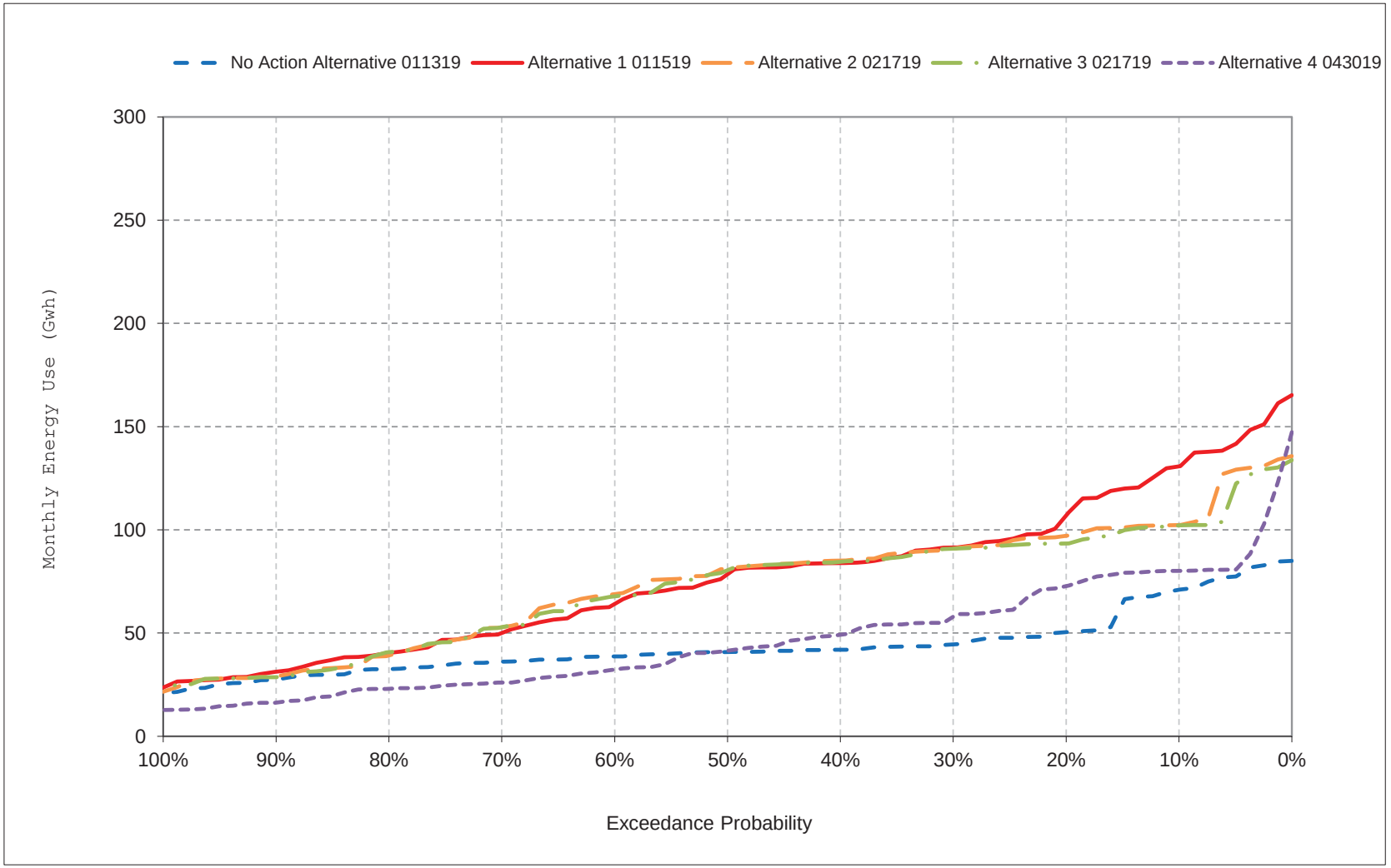
Figure 3-12. CVP Total Energy Use, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

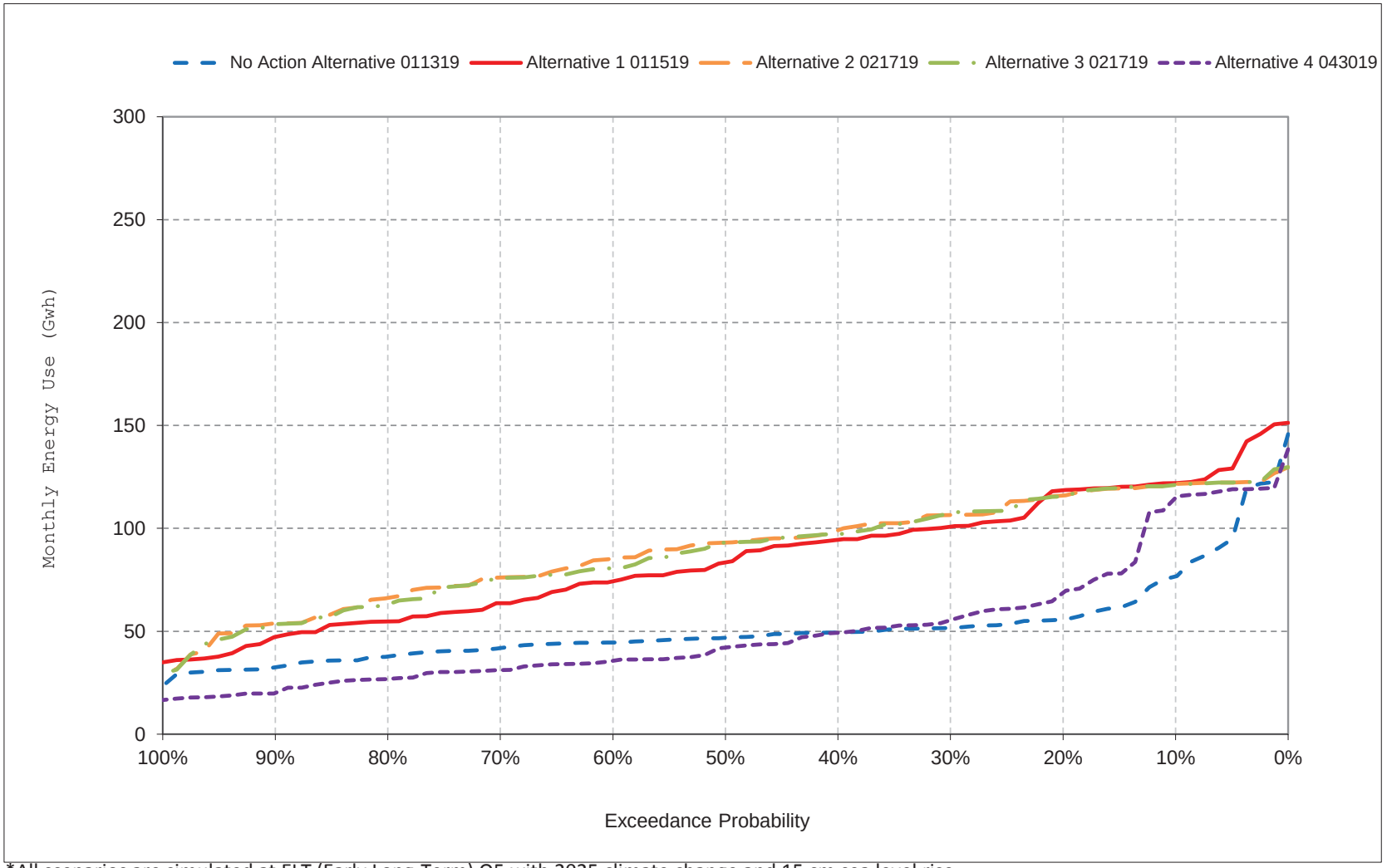
Figure 3-13. CVP Total Energy Use, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

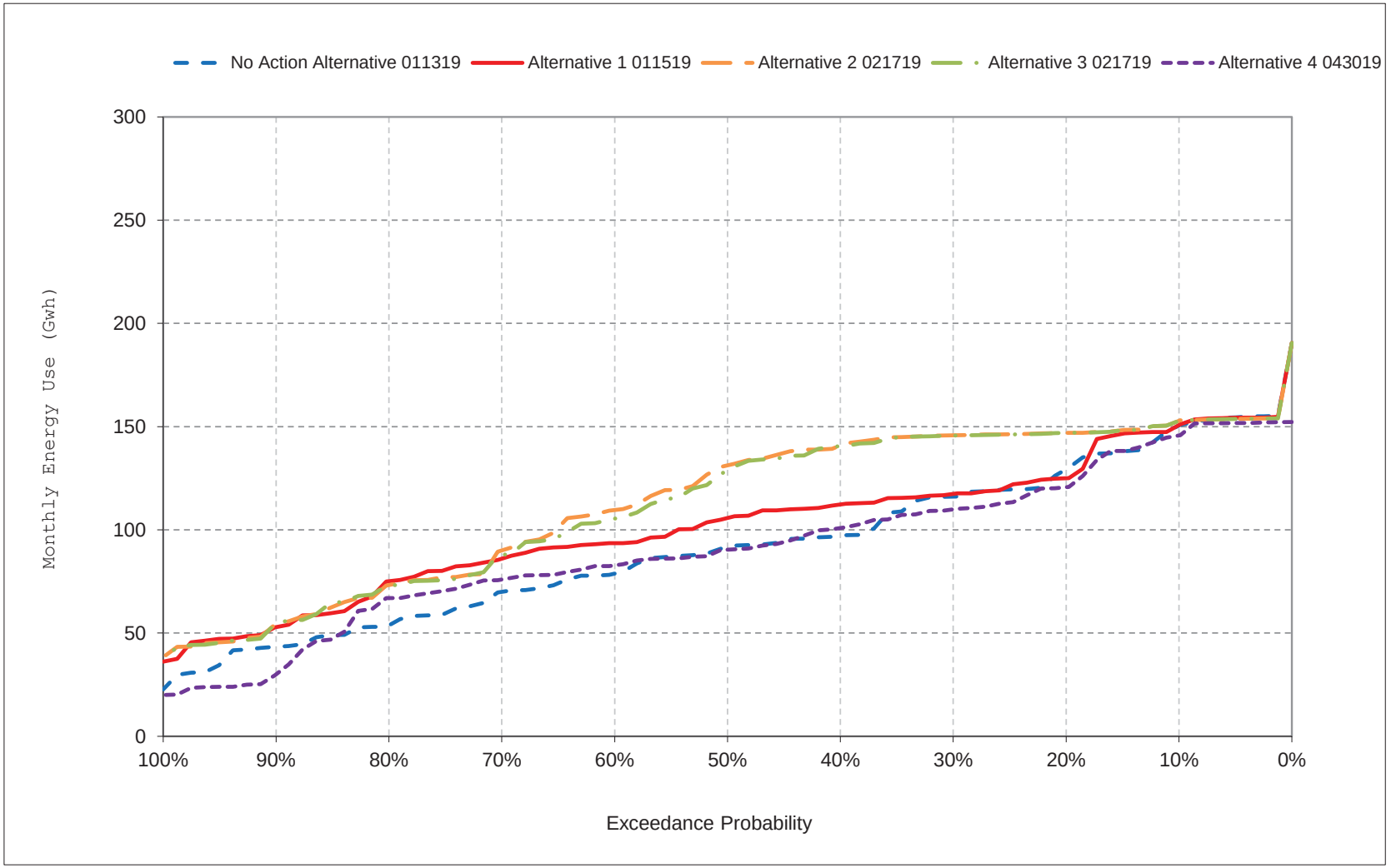
Figure 3-14. CVP Total Energy Use, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

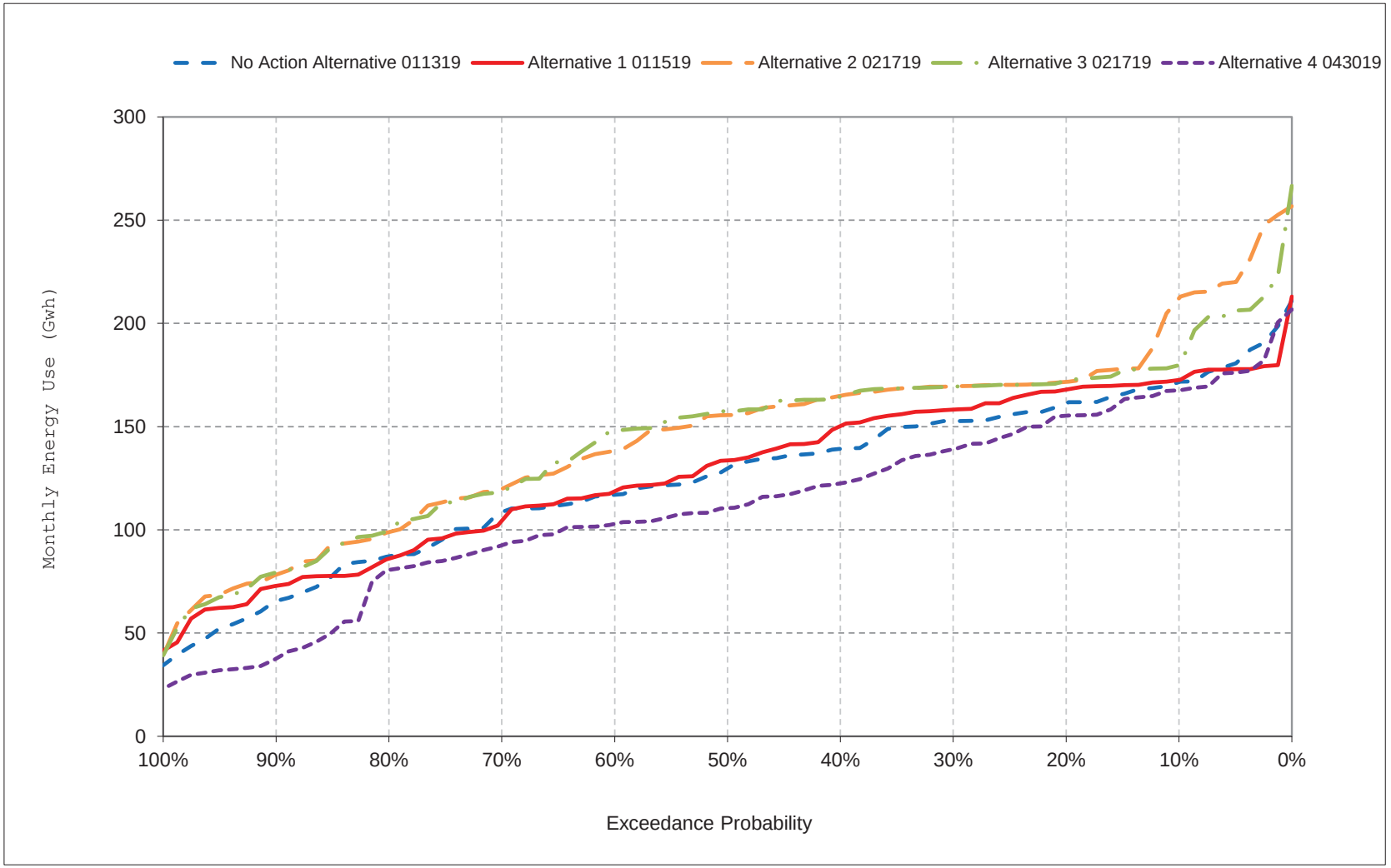
Figure 3-15. CVP Total Energy Use, June



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

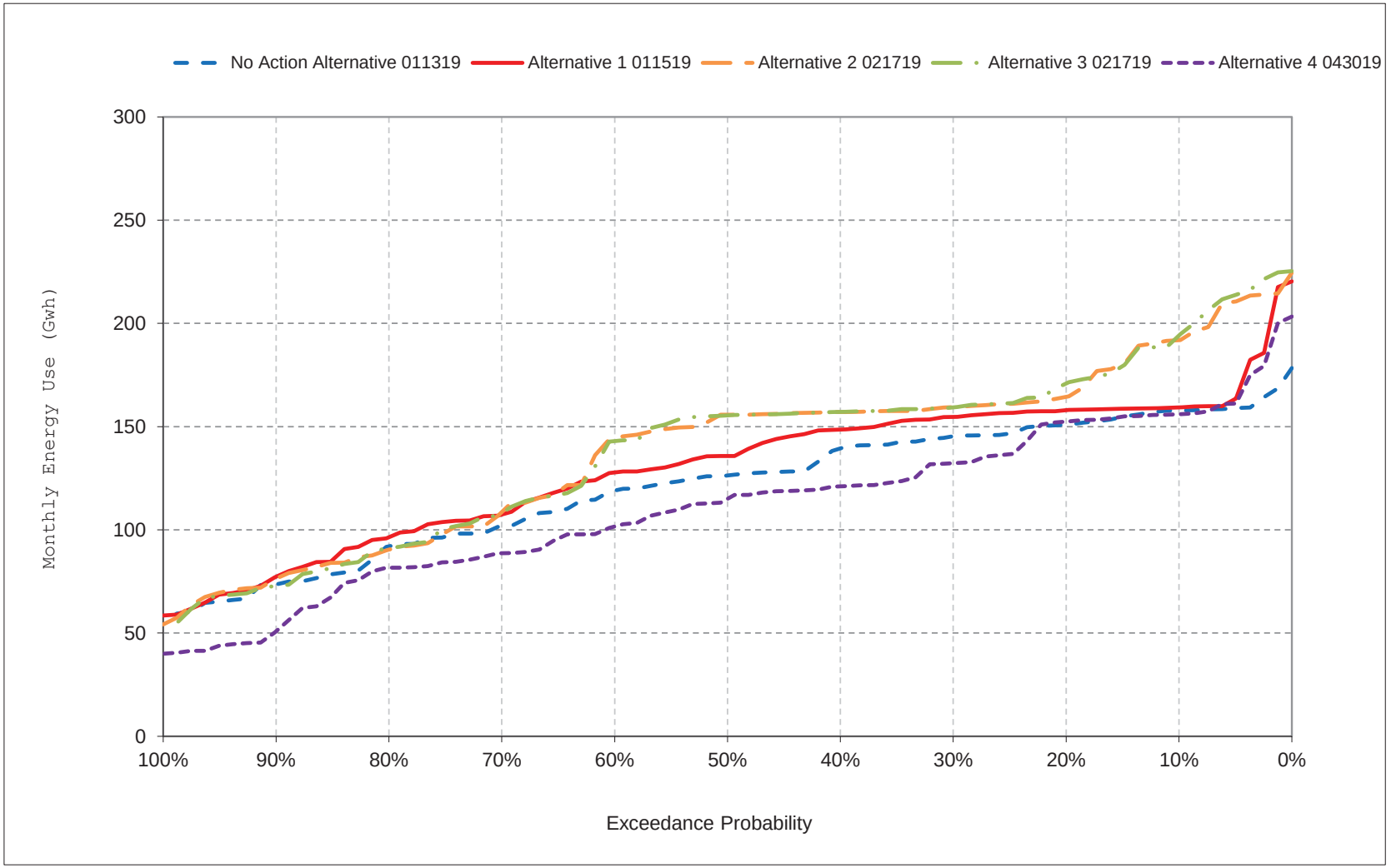
Figure 3-16. CVP Total Energy Use, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

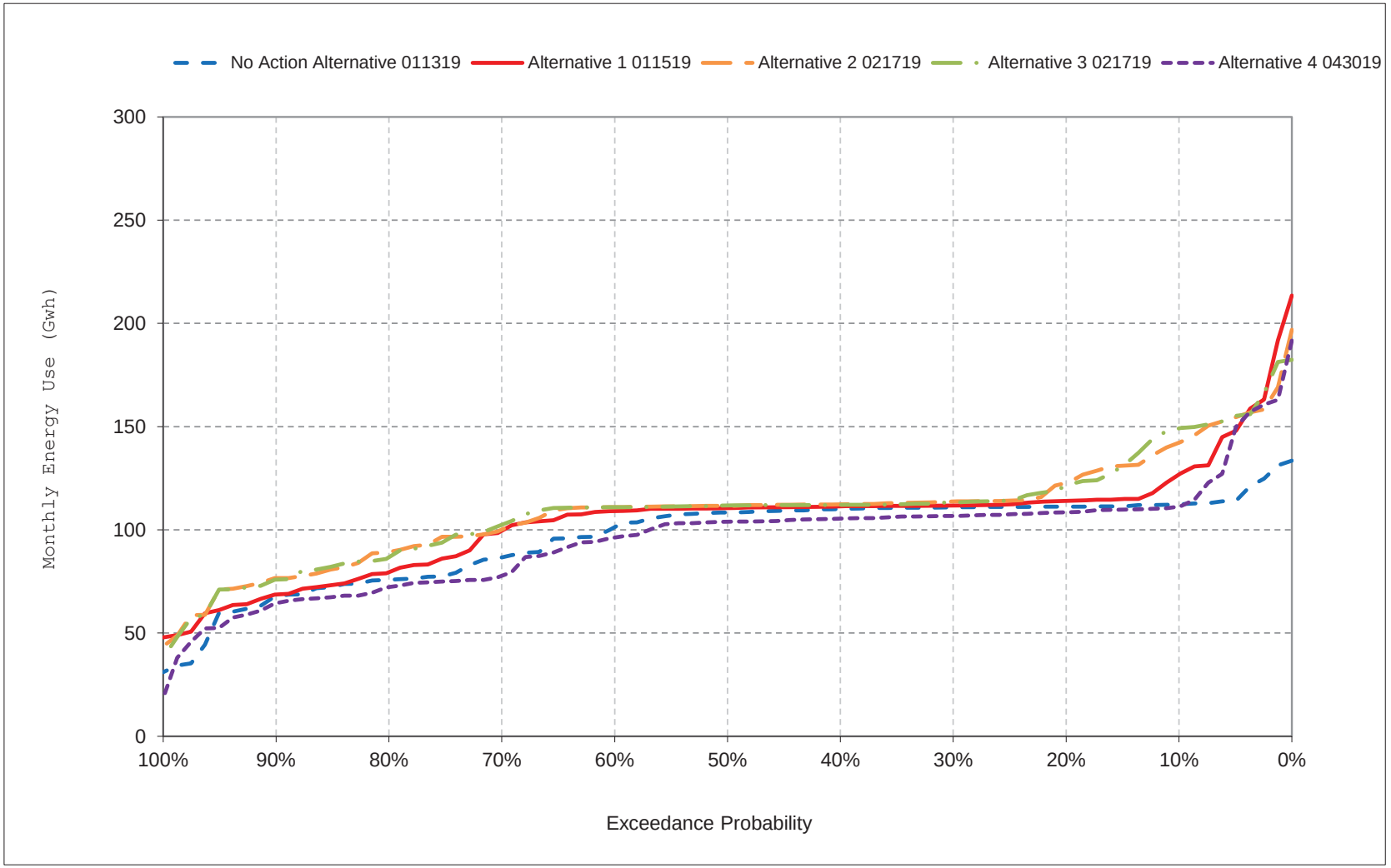
Figure 3-17. CVP Total Energy Use, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 3-18. CVP Total Energy Use, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 4-1. CVP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	324	294	501	553	535	552	442	584	504	654	449	545
20%	289	227	210	424	474	416	287	511	453	617	416	498
30%	248	192	94	221	348	301	257	482	420	584	394	416
40%	225	163	66	100	153	151	239	440	408	541	372	350
50%	207	140	55	61	73	116	229	421	391	500	354	249
60%	178	105	34	48	57	88	215	407	367	472	338	184
70%	144	79	17	18	43	70	201	380	350	420	323	170
80%	113	59	1	6	27	52	175	311	335	391	305	148
90%	92	36	-6	-15	7	34	155	256	295	331	245	97
Long Term												
Full Simulation Period[a]	205	154	131	181	201	220	264	422	397	498	355	299
Water Year Types[b,c]												
Wet (32%)	293	245	178	422	363	427	374	523	403	523	400	514
Above Normal (16%)	247	210	105	183	315	257	287	453	409	610	390	349
Below Normal (13%)	168	100	125	39	146	84	223	434	443	549	390	202
Dry (24%)	156	102	164	37	45	81	189	366	421	471	327	164
Critical (15%)	82	32	12	24	37	87	166	251	290	319	232	94

Alternative 1 011519

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	312	209	510	551	568	582	399	524	509	656	447	362
20%	293	137	326	466	498	495	257	481	478	627	420	247
30%	207	122	130	329	356	271	225	440	448	603	395	232
40%	177	104	87	137	150	153	191	418	427	550	376	214
50%	160	94	70	84	74	125	178	385	405	504	362	197
60%	140	82	58	45	49	104	167	358	386	483	349	184
70%	127	64	45	9	25	70	153	331	366	456	334	170
80%	109	61	27	1	8	48	146	300	352	404	304	143
90%	92	36	12	-8	-6	27	138	256	316	349	254	108
Long Term												
Full Simulation Period[a]	184	115	163	201	208	231	225	390	415	513	361	212
Water Year Types[b,c]												
Wet (32%)	266	143	228	447	390	435	309	460	424	530	403	302
Above Normal (16%)	184	130	175	229	343	294	217	402	439	612	396	215
Below Normal (13%)	165	111	132	76	178	122	196	414	467	560	396	187
Dry (24%)	150	112	173	37	20	77	168	355	423	491	334	165
Critical (15%)	83	48	19	28	8	75	175	258	308	360	242	113

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-12	-84	9	-2	34	30	-43	-61	6	2	-2	-183
20%	4	-90	116	43	24	79	-31	-30	25	10	3	-251
30%	-41	-70	37	108	8	-30	-32	-41	28	19	0	-184
40%	-48	-59	21	37	-3	3	-48	-22	20	10	3	-136
50%	-46	-47	15	23	1	9	-50	-36	15	4	8	-52
60%	-38	-23	23	-3	-8	16	-49	-49	19	11	11	0
70%	-17	-15	27	-9	-19	0	-49	-49	16	36	11	-1
80%	-5	2	26	-5	-18	-4	-29	-10	17	13	-1	-5
90%	0	0	18	7	-13	-7	-16	0	20	18	10	10
Long Term												
Full Simulation Period[a]	-21	-38	31	21	7	11	-39	-32	18	15	6	-87
Water Year Types[b,c]												
Wet (32%)	-28	-102	51	24	27	8	-65	-63	22	7	3	-212
Above Normal (16%)	-63	-80	70	46	28	37	-69	-52	30	3	6	-134
Below Normal (13%)	-3	11	7	37	32	38	-27	-19	24	12	7	-14
Dry (24%)	-6	11	9	0	-25	-4	-20	-11	2	20	7	1
Critical (15%)	1	17	7	4	-29	-12	8	7	18	41	10	20

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 4-2. CVP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	324	294	501	553	535	552	442	584	504	654	449	545
20%	289	227	210	424	474	416	287	511	453	617	416	498
30%	248	192	94	221	348	301	257	482	420	584	394	416
40%	225	163	66	100	153	151	239	440	408	541	372	350
50%	207	140	55	61	73	116	229	421	391	500	354	249
60%	178	105	34	48	57	88	215	407	367	472	338	184
70%	144	79	17	18	43	70	201	380	350	420	323	170
80%	113	59	1	6	27	52	175	311	335	391	305	148
90%	92	36	-6	-15	7	34	155	256	295	331	245	97
Long Term												
Full Simulation Period[a]	205	154	131	181	201	220	264	422	397	498	355	299
Water Year Types[b,c]												
Wet (32%)	293	245	178	422	363	427	374	523	403	523	400	514
Above Normal (16%)	247	210	105	183	315	257	287	453	409	610	390	349
Below Normal (13%)	168	100	125	39	146	84	223	434	443	549	390	202
Dry (24%)	156	102	164	37	45	81	189	366	421	471	327	164
Critical (15%)	82	32	12	24	37	87	166	251	290	319	232	94

Alternative 2 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	300	156	500	530	615	563	394	528	582	635	466	338
20%	276	125	246	416	488	439	273	489	540	616	440	273
30%	207	101	88	326	299	271	242	449	500	583	418	251
40%	173	92	69	146	139	157	199	427	457	562	385	218
50%	165	84	45	61	74	120	190	398	433	529	367	201
60%	154	72	28	30	41	91	167	370	416	493	352	189
70%	130	65	11	5	16	52	151	334	371	462	338	174
80%	119	47	-1	-13	-9	32	133	310	353	418	318	147
90%	95	25	-16	-27	-25	13	109	259	312	366	277	101
Long Term												
Full Simulation Period[a]	180	100	133	185	200	217	226	395	445	514	374	219
Water Year Types[b,c]												
Wet (32%)	242	132	214	424	396	430	317	466	448	539	417	306
Above Normal (16%)	173	116	108	196	325	268	208	398	494	608	414	217
Below Normal (13%)	180	91	96	67	167	117	184	424	508	552	409	223
Dry (24%)	161	94	148	26	2	48	168	370	450	498	340	173
Critical (15%)	83	35	-8	31	2	75	180	255	317	350	261	108

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-24	-137	-1	-22	81	11	-48	-56	78	-19	17	-208
20%	-12	-102	36	-7	14	23	-15	-22	87	-1	23	-225
30%	-40	-91	-5	105	-48	-30	-15	-32	79	-1	24	-165
40%	-52	-71	2	46	-14	7	-40	-13	50	21	13	-132
50%	-42	-56	-10	1	1	3	-39	-23	43	29	13	-48
60%	-23	-33	-7	-18	-16	3	-48	-37	49	21	13	5
70%	-14	-14	-6	-13	-27	-18	-50	-46	21	43	14	4
80%	5	-12	-2	-19	-35	-20	-42	-1	19	27	13	-2
90%	3	-12	-11	-12	-32	-21	-46	3	17	35	32	3
Long Term												
Full Simulation Period[a]	-25	-53	1	5	-1	-3	-39	-27	48	16	19	-80
Water Year Types[b,c]												
Wet (32%)	-51	-113	36	2	34	2	-57	-57	46	16	17	-208
Above Normal (16%)	-74	-94	3	12	10	11	-79	-56	85	-1	23	-132
Below Normal (13%)	12	-9	-29	27	21	33	-39	-10	65	3	19	21
Dry (24%)	5	-7	-16	-11	-43	-33	-20	4	29	27	13	9
Critical (15%)	1	3	-19	7	-36	-12	13	3	28	32	29	14

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 4-3. CVP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	324	294	501	553	535	552	442	584	504	654	449	545
20%	289	227	210	424	474	416	287	511	453	617	416	498
30%	248	192	94	221	348	301	257	482	420	584	394	416
40%	225	163	66	100	153	151	239	440	408	541	372	350
50%	207	140	55	61	73	116	229	421	391	500	354	249
60%	178	105	34	48	57	88	215	407	367	472	338	184
70%	144	79	17	18	43	70	201	380	350	420	323	170
80%	113	59	1	6	27	52	175	311	335	391	305	148
90%	92	36	-6	-15	7	34	155	256	295	331	245	97
Long Term												
Full Simulation Period[a]	205	154	131	181	201	220	264	422	397	498	355	299
Water Year Types[b,c]												
Wet (32%)	293	245	178	422	363	427	374	523	403	523	400	514
Above Normal (16%)	247	210	105	183	315	257	287	453	409	610	390	349
Below Normal (13%)	168	100	125	39	146	84	223	434	443	549	390	202
Dry (24%)	156	102	164	37	45	81	189	366	421	471	327	164
Critical (15%)	82	32	12	24	37	87	166	251	290	319	232	94

Alternative 3 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	315	159	500	526	593	562	395	526	583	652	466	328
20%	282	127	256	410	473	437	282	485	540	622	441	268
30%	228	96	101	296	297	272	235	442	488	593	411	251
40%	201	94	69	144	144	147	202	419	445	565	387	218
50%	173	83	45	53	78	119	193	395	426	529	366	206
60%	156	71	32	26	46	93	171	369	415	488	351	191
70%	146	59	10	4	17	61	153	332	369	460	337	174
80%	123	45	-4	-13	-8	29	131	306	351	416	314	145
90%	95	23	-19	-26	-25	15	109	260	311	358	271	106
Long Term												
Full Simulation Period[a]	191	101	136	184	197	218	227	394	441	515	373	218
Water Year Types[b,c]												
Wet (32%)	250	135	219	427	394	424	321	460	448	537	418	302
Above Normal (16%)	172	117	122	188	307	280	205	399	484	619	408	217
Below Normal (13%)	204	93	97	61	174	116	186	425	504	558	408	220
Dry (24%)	179	89	145	22	3	54	170	371	448	498	339	174
Critical (15%)	89	38	-9	39	-3	73	181	256	311	347	258	108

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-9	-135	-1	-27	58	10	-47	-58	79	-2	17	-218
20%	-7	-100	46	-14	-1	21	-6	-26	87	5	25	-230
30%	-20	-95	8	75	-51	-30	-22	-40	68	9	16	-164
40%	-24	-70	2	44	-9	-3	-37	-21	38	24	15	-132
50%	-33	-57	-10	-8	4	2	-36	-26	35	29	12	-43
60%	-22	-34	-3	-22	-11	5	-44	-38	48	16	13	6
70%	2	-20	-7	-14	-26	-9	-48	-48	19	41	13	4
80%	10	-14	-6	-19	-35	-24	-44	-5	17	25	9	-3
90%	3	-13	-13	-10	-32	-20	-46	4	16	27	27	8
Long Term												
Full Simulation Period[a]	-14	-53	4	3	-4	-2	-37	-28	44	18	18	-81
Water Year Types[b,c]												
Wet (32%)	-44	-110	41	5	31	-3	-53	-63	45	13	18	-213
Above Normal (16%)	-75	-94	17	5	-8	23	-81	-54	76	9	18	-132
Below Normal (13%)	36	-7	-28	21	28	32	-37	-9	61	9	18	18
Dry (24%)	23	-13	-19	-15	-42	-27	-18	5	28	27	12	9
Critical (15%)	7	6	-21	14	-41	-14	15	5	21	28	26	15

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 4-4. CVP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	324	294	501	553	535	552	442	584	504	654	449	545
20%	289	227	210	424	474	416	287	511	453	617	416	498
30%	248	192	94	221	348	301	257	482	420	584	394	416
40%	225	163	66	100	153	151	239	440	408	541	372	350
50%	207	140	55	61	73	116	229	421	391	500	354	249
60%	178	105	34	48	57	88	215	407	367	472	338	184
70%	144	79	17	18	43	70	201	380	350	420	323	170
80%	113	59	1	6	27	52	175	311	335	391	305	148
90%	92	36	-6	-15	7	34	155	256	295	331	245	97
Long Term												
Full Simulation Period[a]	205	154	131	181	201	220	264	422	397	498	355	299
Water Year Types[b,c]												
Wet (32%)	293	245	178	422	363	427	374	523	403	523	400	514
Above Normal (16%)	247	210	105	183	315	257	287	453	409	610	390	349
Below Normal (13%)	168	100	125	39	146	84	223	434	443	549	390	202
Dry (24%)	156	102	164	37	45	81	189	366	421	471	327	164
Critical (15%)	82	32	12	24	37	87	166	251	290	319	232	94

Alternative 4 043019

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	305	202	490	527	591	665	412	532	483	677	450	327
20%	236	142	319	456	482	518	317	490	452	635	423	258
30%	211	119	125	291	290	342	284	466	432	609	404	242
40%	176	103	94	137	144	242	262	443	420	541	385	211
50%	169	98	76	67	85	211	244	428	402	499	369	199
60%	156	84	59	39	67	179	222	411	376	476	359	188
70%	142	69	37	11	34	152	205	390	362	455	345	175
80%	125	61	21	3	19	141	197	354	344	410	311	156
90%	97	39	7	0	8	116	173	294	309	365	276	95
Long Term												
Full Simulation Period[a]	186	114	161	193	212	304	276	423	403	518	368	214
Water Year Types[b,c]												
Wet (32%)	250	140	223	432	380	481	368	501	418	535	407	295
Above Normal (16%)	188	137	167	200	347	384	306	454	413	637	409	231
Below Normal (13%)	169	111	130	80	170	222	240	432	439	579	393	189
Dry (24%)	162	107	173	37	36	174	212	383	410	481	343	174
Critical (15%)	102	46	28	31	32	125	186	280	314	356	258	114

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-19	-91	-11	-26	57	113	-30	-52	-21	23	1	-219
20%	-52	-85	109	33	9	103	30	-21	0	18	7	-240
30%	-37	-72	31	70	-57	41	27	-16	12	25	10	-174
40%	-49	-60	28	37	-9	92	23	3	12	0	13	-139
50%	-38	-43	22	7	12	95	15	7	11	-1	14	-50
60%	-22	-21	24	-9	10	91	7	4	9	4	20	3
70%	-2	-10	20	-6	-9	82	3	10	12	35	22	5
80%	11	2	20	-3	-8	88	22	43	10	20	6	7
90%	5	3	12	15	1	82	18	38	14	35	31	-2
Long Term												
Full Simulation Period[a]	-19	-40	29	12	11	84	12	1	6	20	14	-85
Water Year Types[b,c]												
Wet (32%)	-44	-104	45	10	17	54	-6	-22	15	12	7	-219
Above Normal (16%)	-59	-73	62	17	32	127	19	0	4	27	19	-118
Below Normal (13%)	1	11	5	41	24	138	17	-2	-5	31	4	-13
Dry (24%)	6	5	9	0	-9	93	23	16	-11	10	16	9
Critical (15%)	19	15	17	7	-5	38	20	29	25	38	26	21

a Based on the 82-year simulation period.

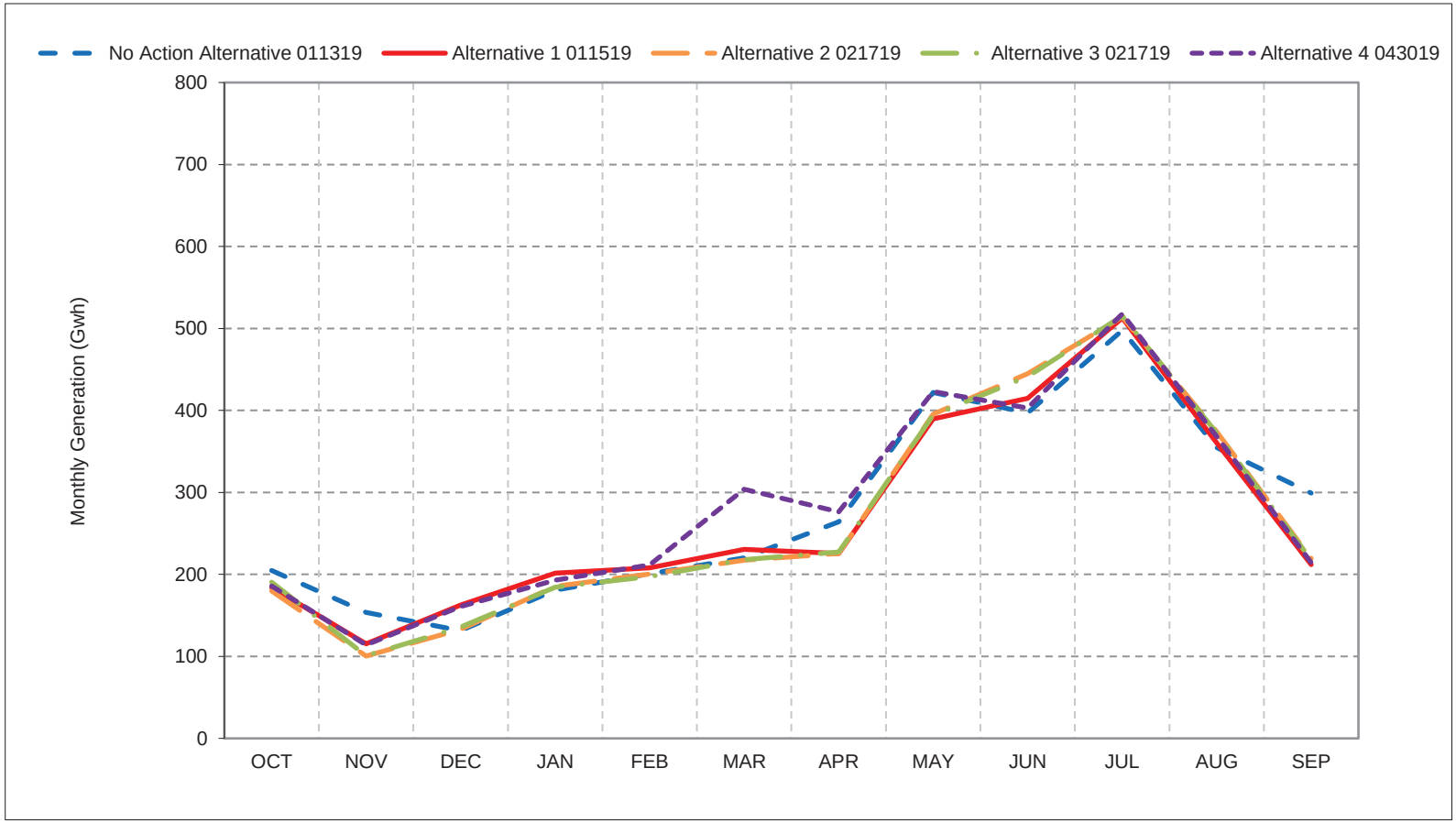
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

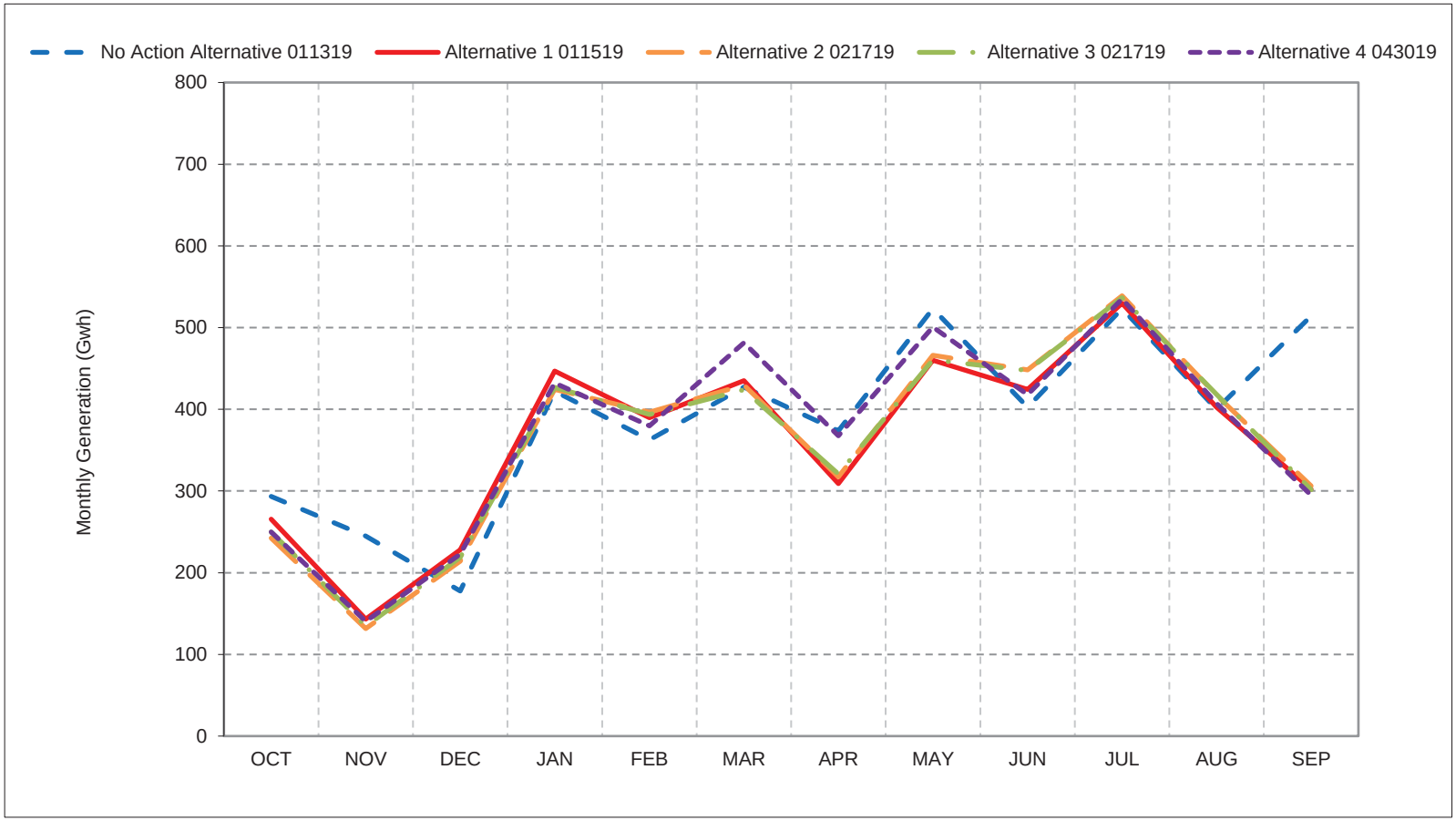
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-1. CVP Net Generation, Long-Term Average Generation



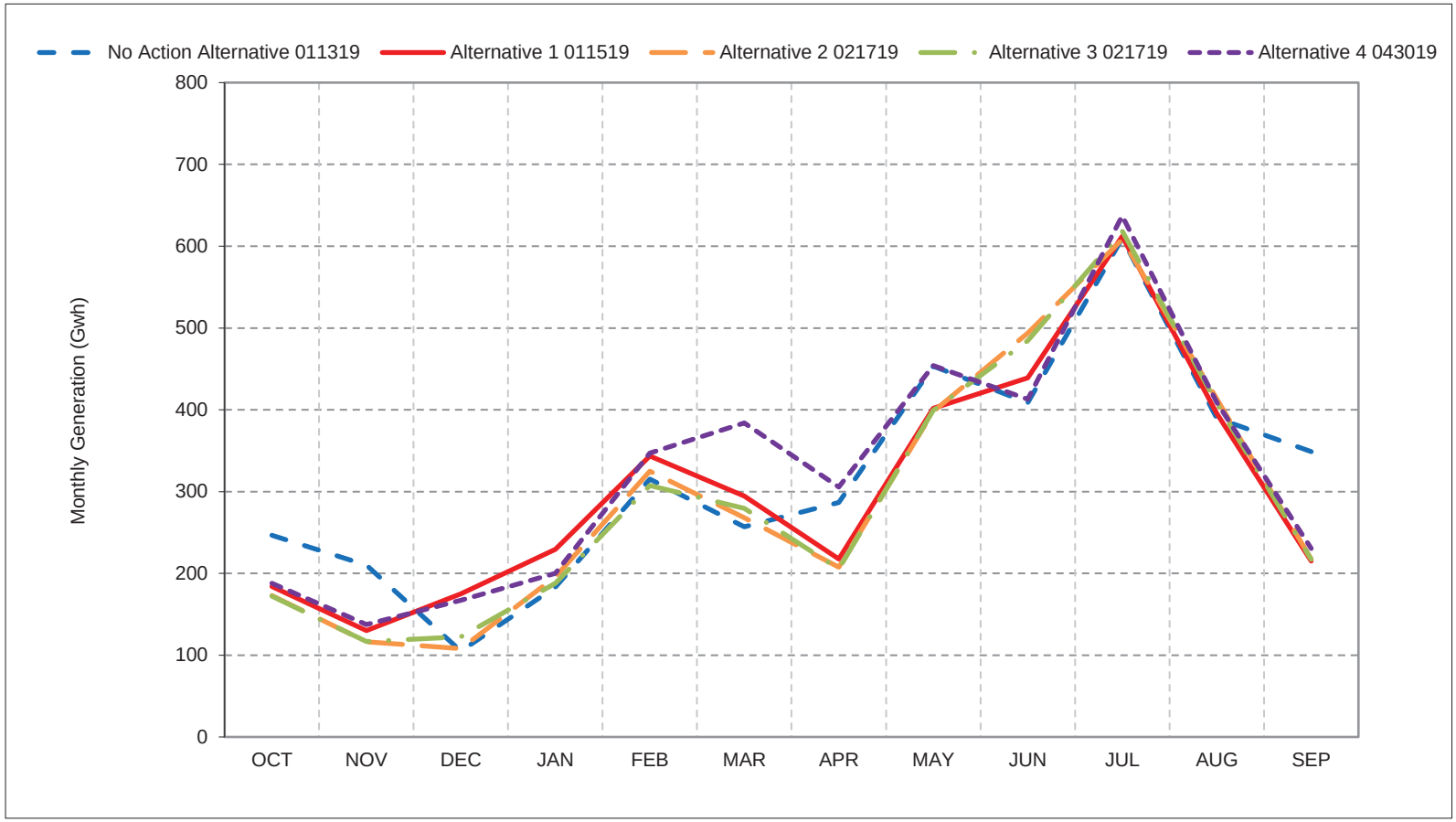
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-2. CVP Net Generation, Wet Year Average Generation



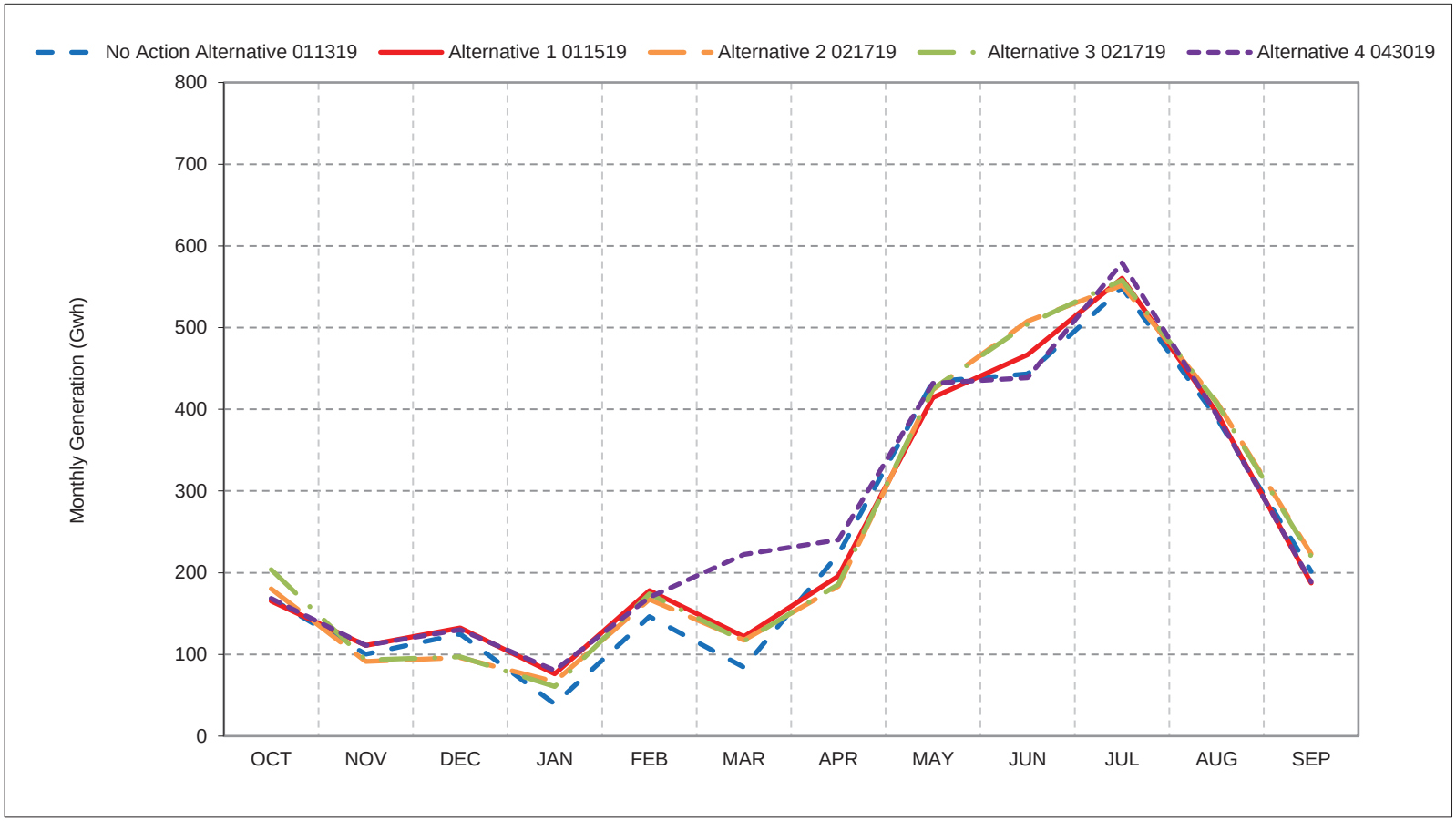
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-3. CVP Net Generation, Above Normal Year Average Generation



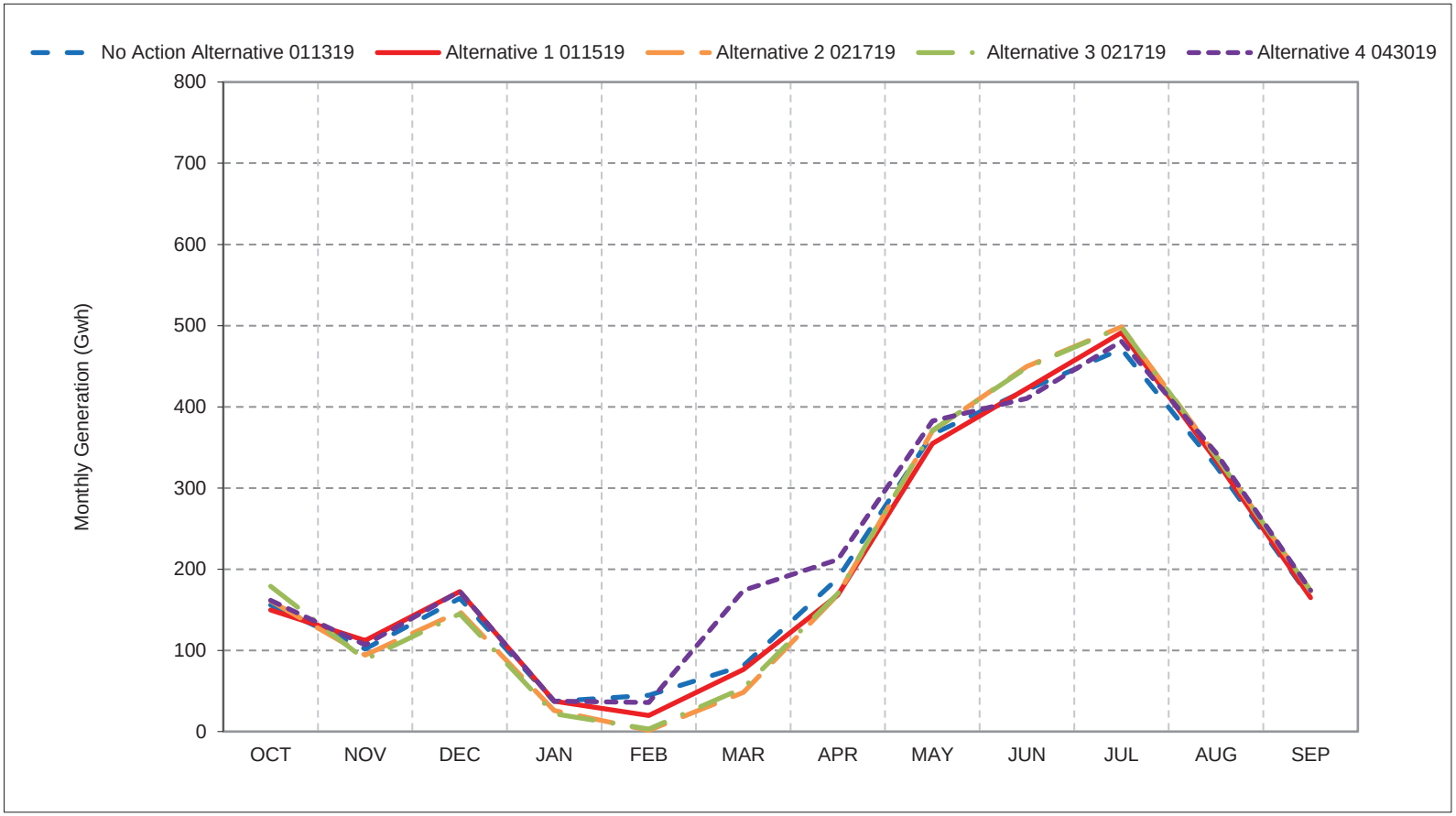
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-4. CVP Net Generation, Below Normal Year Average Generation



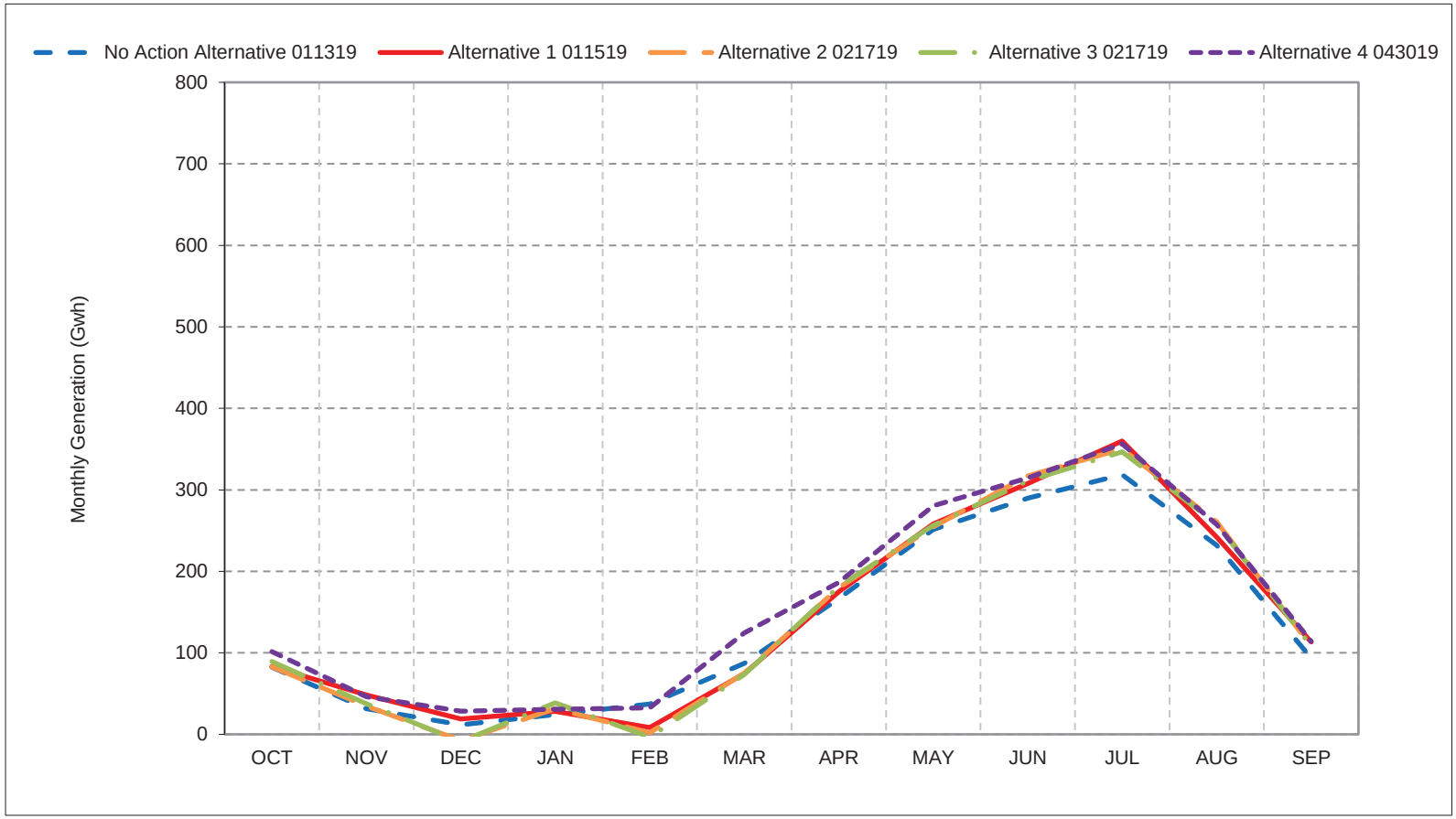
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-5. CVP Net Generation, Dry Year Average Generation



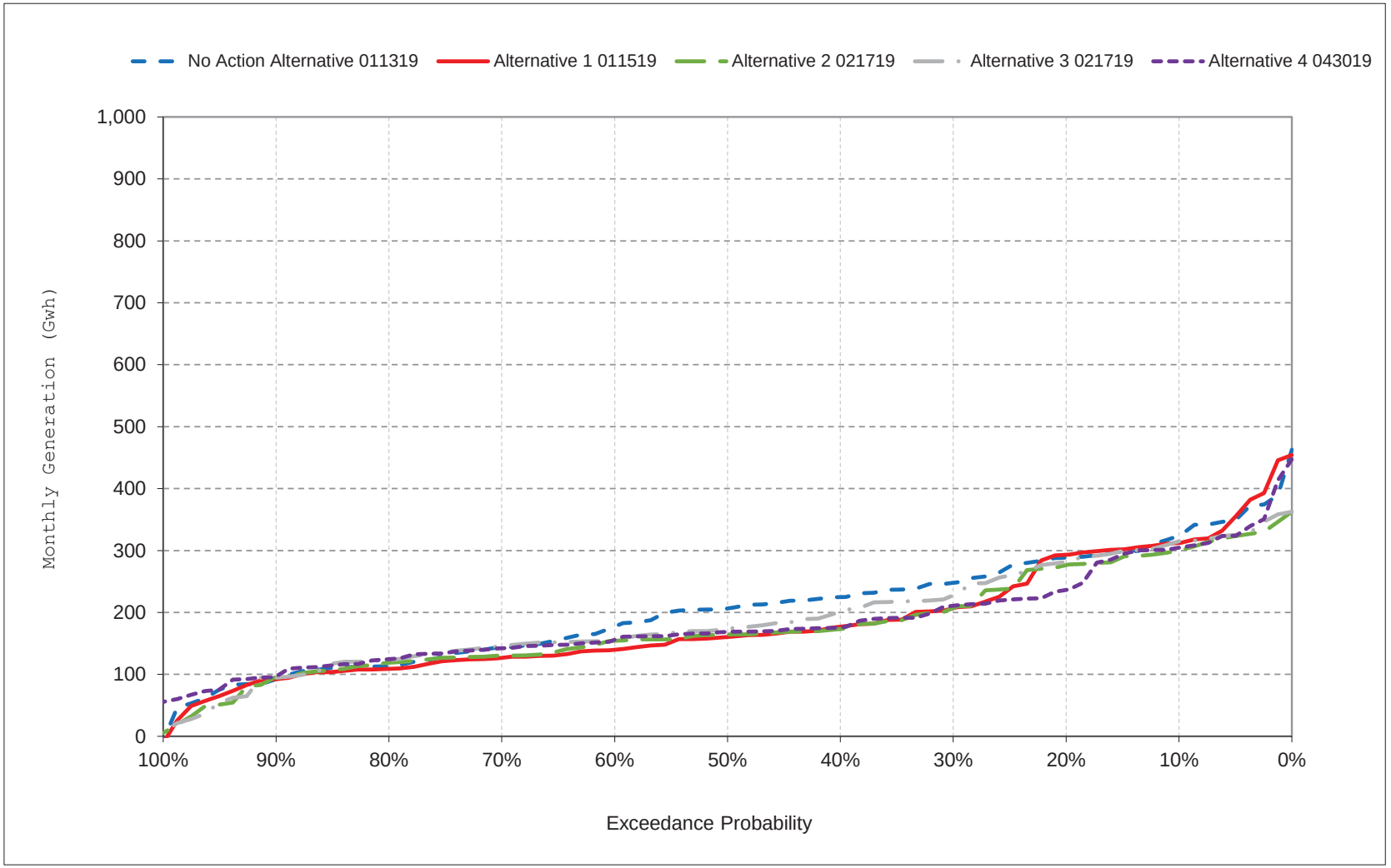
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-6. CVP Net Generation, Critical Year Average Generation



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

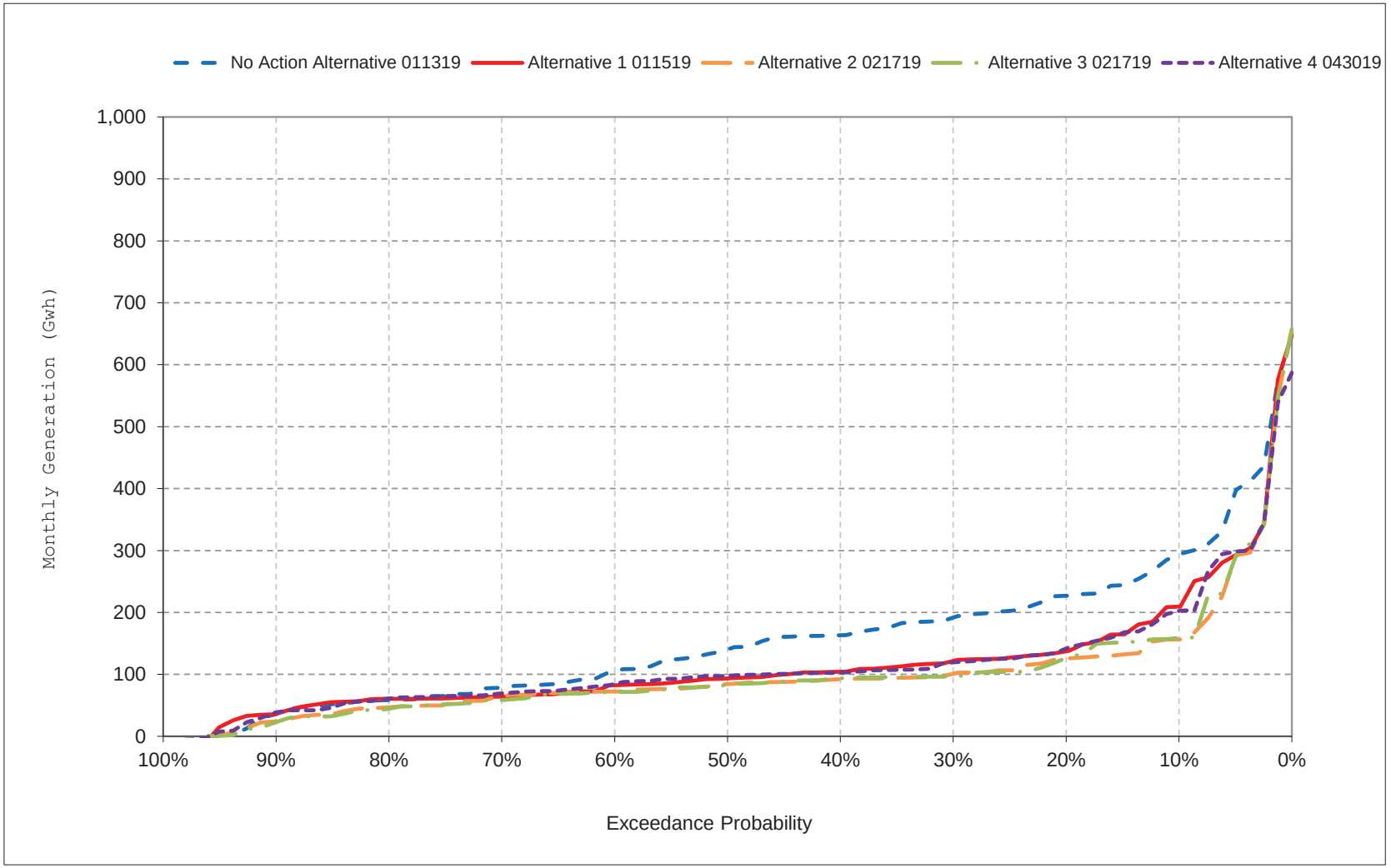
Figure 4-7. CVP Net Generation, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

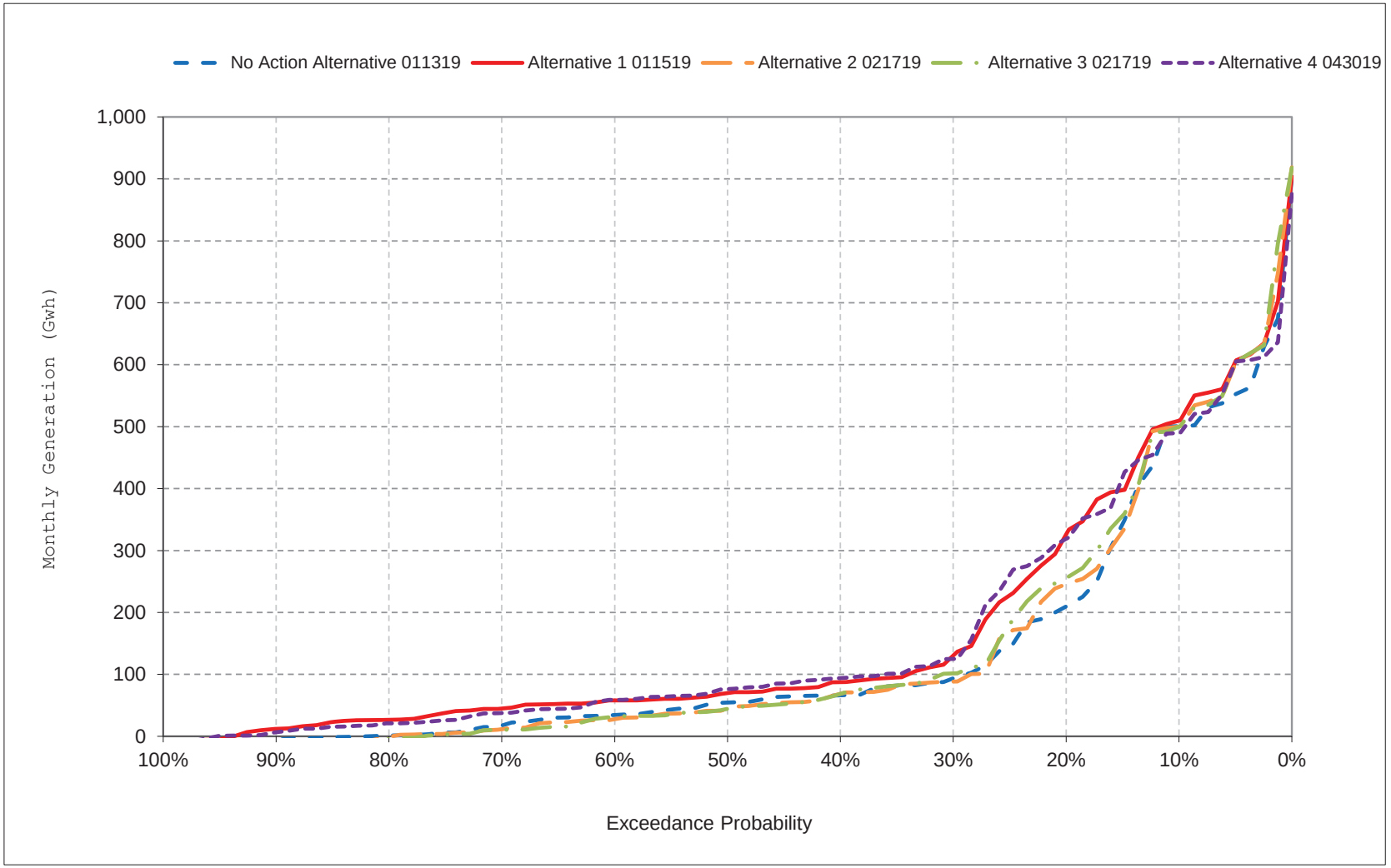
Figure 4-8. CVP Net Generation, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

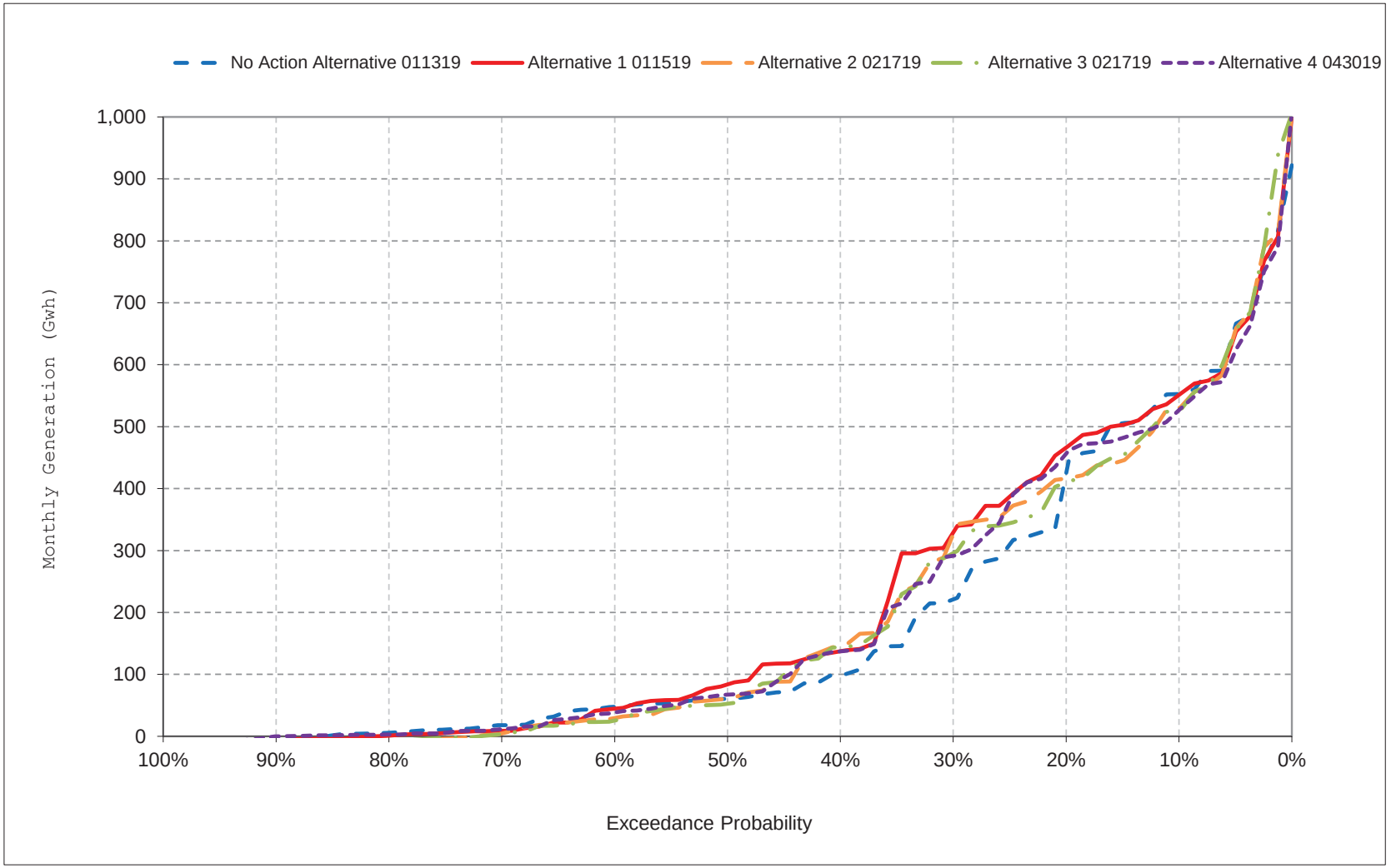
Figure 4-9. CVP Net Generation, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

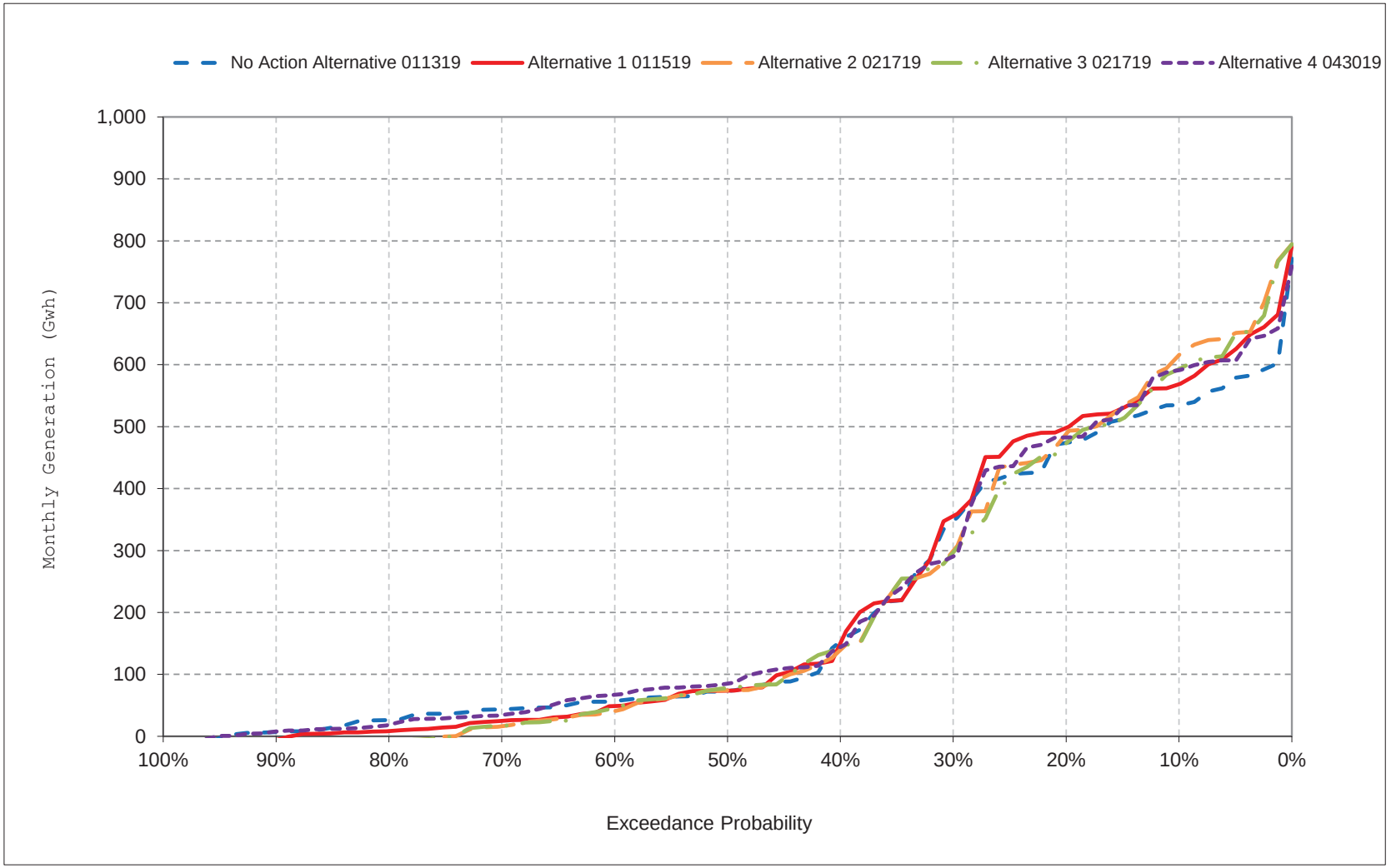
Figure 4-10. CVP Net Generation, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

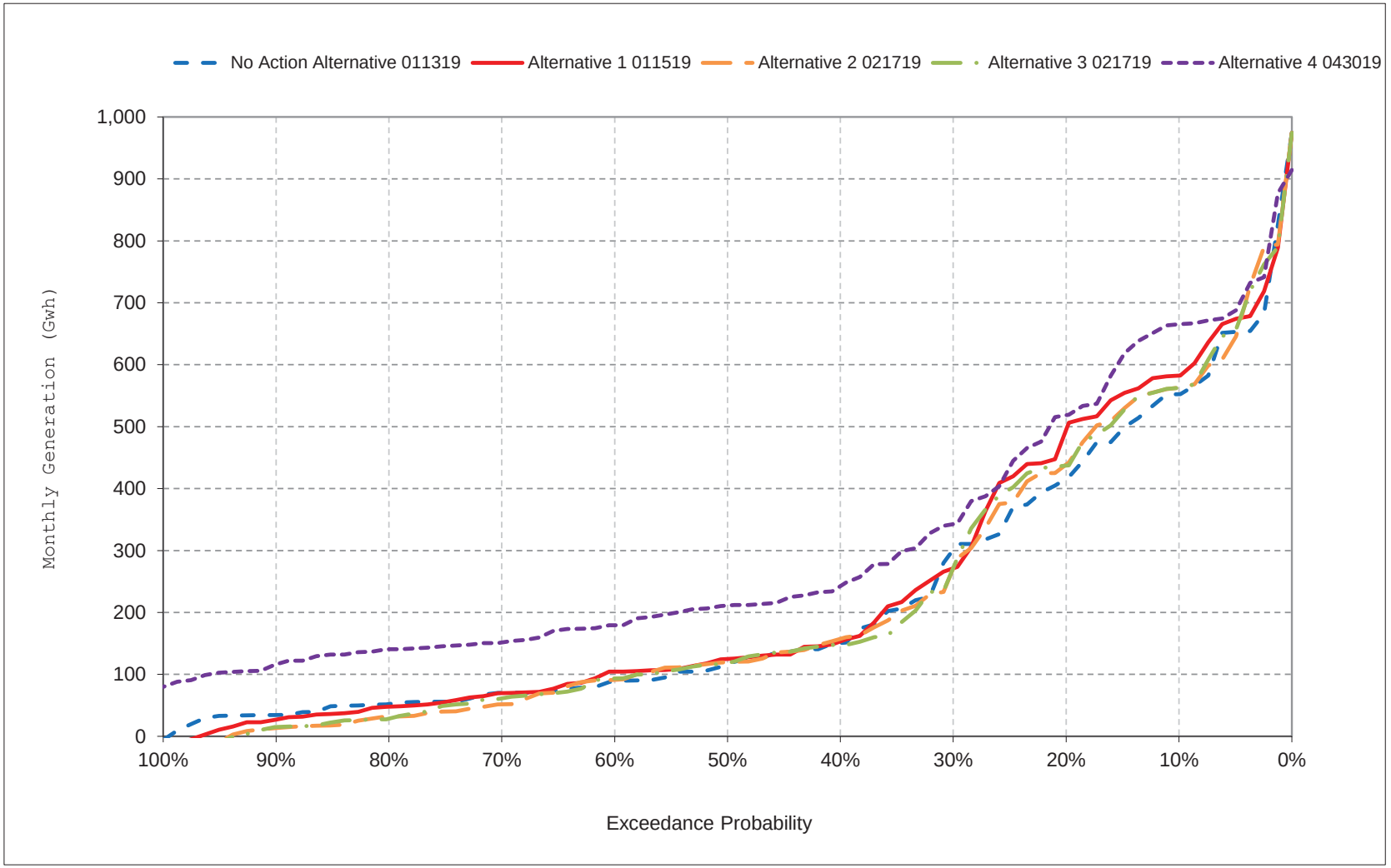
Figure 4-11. CVP Net Generation, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

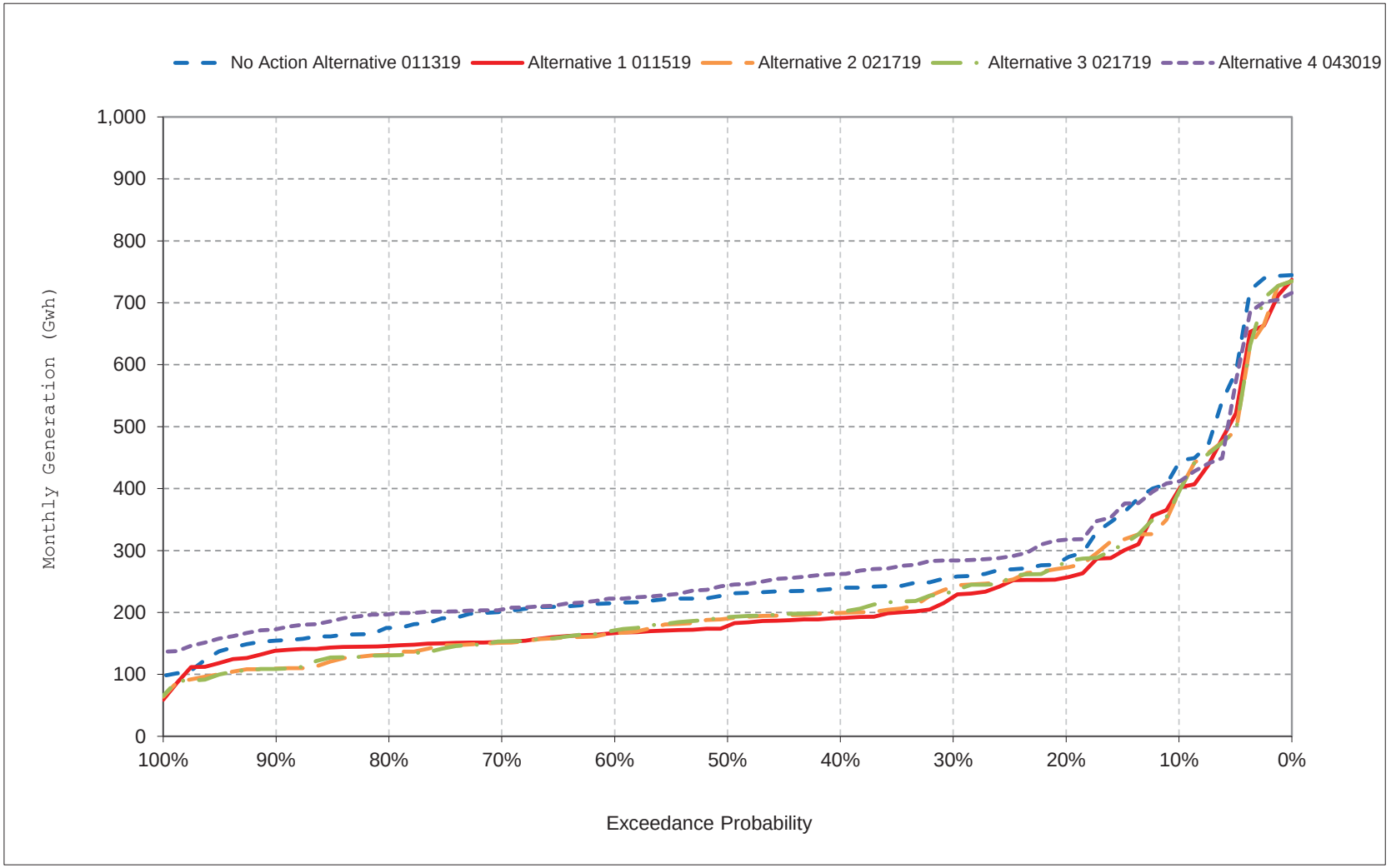
Figure 4-12. CVP Net Generation, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

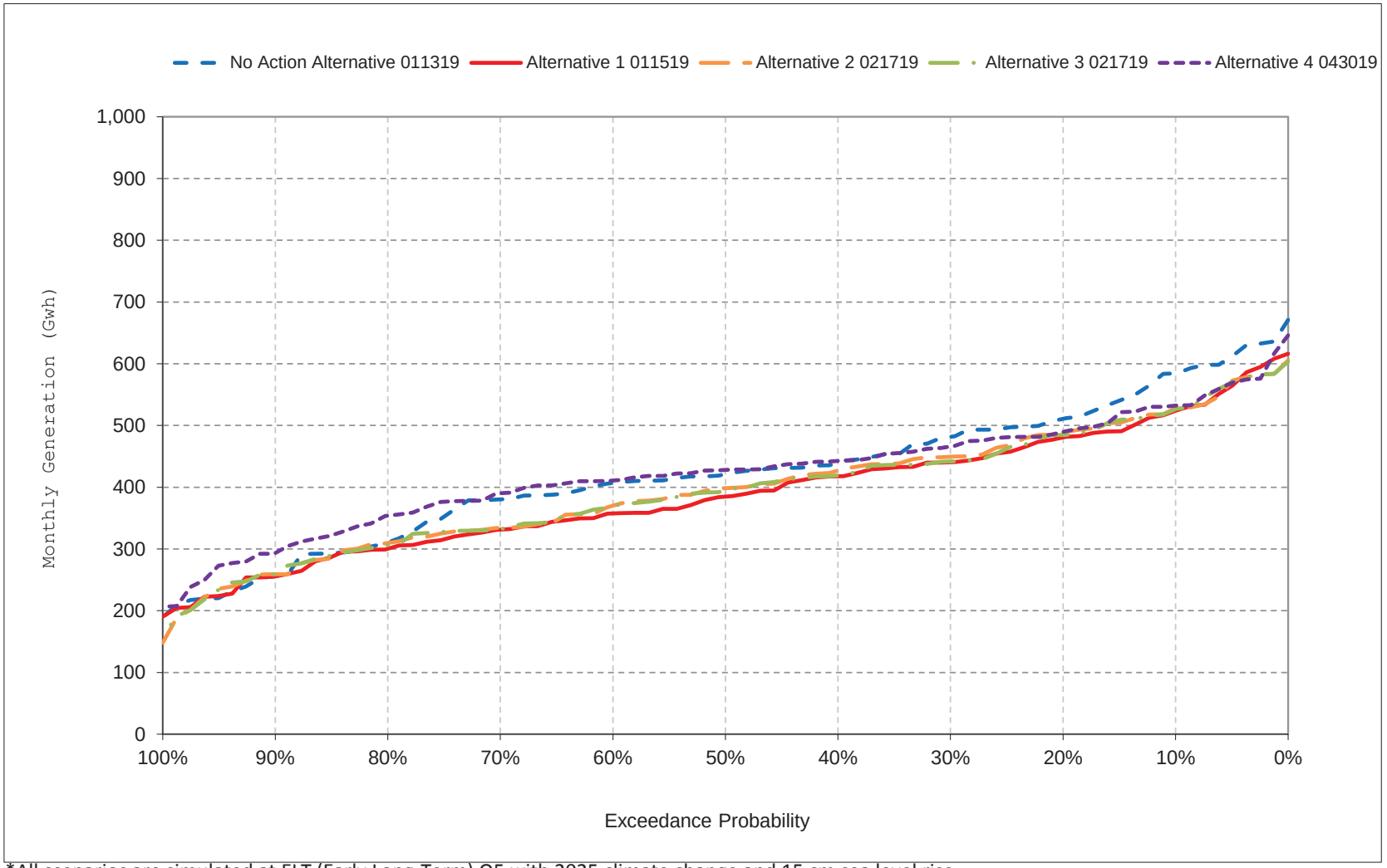
Figure 4-13. CVP Net Generation, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-14. CVP Net Generation, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

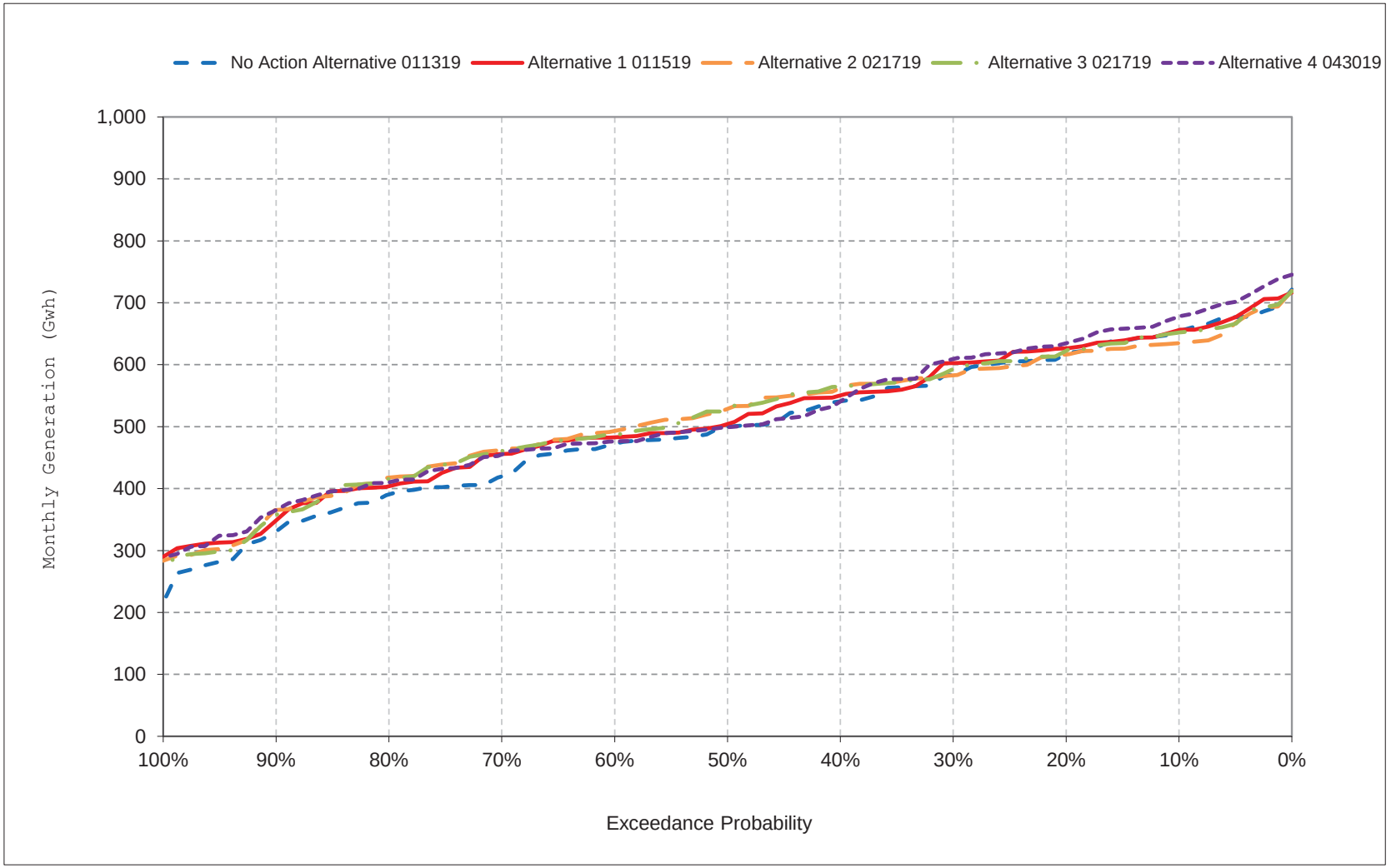
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-15. CVP Net Generation, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-16. CVP Net Generation, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

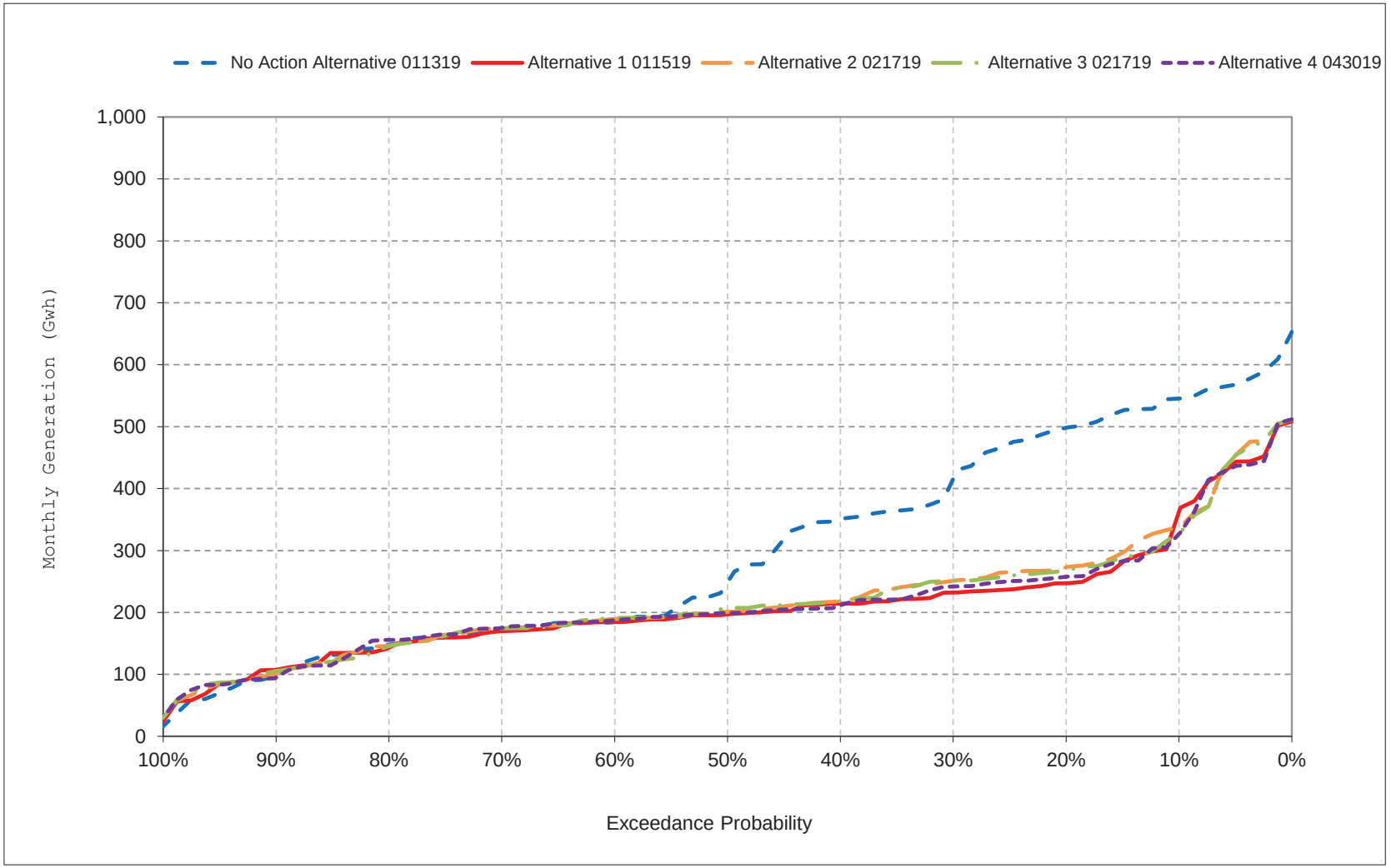
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-17. CVP Net Generation, August

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 4-18. CVP Net Generation, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 5-1. SWP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,210	1,101	1,189	1,182	1,344	1,450	1,347	1,359	1,312	1,312	1,297	1,306
20%	1,082	1,023	1,037	1,010	1,181	1,277	1,294	1,309	1,232	1,269	1,277	1,233
30%	1,032	988	995	944	1,053	1,184	1,253	1,259	1,184	1,256	1,248	1,197
40%	994	939	966	833	994	1,037	1,213	1,202	1,165	1,247	1,225	1,137
50%	946	903	910	787	909	982	1,119	1,104	1,151	1,233	1,154	1,079
60%	878	822	843	679	793	935	1,071	1,066	1,131	1,167	1,032	972
70%	748	613	558	615	762	844	937	1,014	1,053	1,052	868	848
80%	453	409	376	323	674	769	864	976	1,003	907	753	796
90%	195	207	275	205	332	708	745	824	786	636	403	312
Long Term												
Full Simulation Period[a]	827	766	791	732	889	1,000	1,076	1,106	1,090	1,083	997	959
Water Year Types[b,c]												
Wet (32%)	1,129	1,045	1,094	1,067	1,210	1,297	1,313	1,316	1,246	1,290	1,279	1,258
Above Normal (16%)	1,024	973	944	737	981	1,130	1,199	1,185	1,182	1,258	1,235	1,164
Below Normal (13%)	866	823	726	709	890	943	1,076	1,097	1,126	1,171	1,038	990
Dry (24%)	648	573	650	543	684	811	958	1,037	1,060	1,004	837	818
Critical (15%)	221	204	261	337	433	586	627	690	668	497	359	298

Alternative 1 011519

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,263	1,279	1,299	1,402	1,465	1,446	1,396	1,430	1,347	1,354	1,313	1,273
20%	1,190	1,204	1,208	1,149	1,269	1,348	1,363	1,379	1,319	1,331	1,283	1,229
30%	1,104	1,111	1,109	1,032	1,174	1,299	1,337	1,359	1,293	1,310	1,256	1,188
40%	1,039	1,041	1,054	952	1,104	1,243	1,302	1,313	1,245	1,294	1,205	1,135
50%	981	978	962	850	945	1,092	1,265	1,264	1,193	1,276	1,165	1,076
60%	913	883	846	694	820	947	1,169	1,160	1,150	1,217	1,113	1,010
70%	787	658	662	618	732	855	1,028	1,073	1,114	1,089	945	916
80%	457	395	465	311	671	805	881	1,004	1,018	944	819	762
90%	312	243	310	246	407	704	753	857	845	761	473	392
Long Term												
Full Simulation Period[a]	867	852	866	789	942	1,062	1,142	1,176	1,135	1,128	1,035	962
Water Year Types[b,c]												
Wet (32%)	1,191	1,219	1,220	1,137	1,279	1,352	1,363	1,376	1,295	1,325	1,281	1,241
Above Normal (16%)	1,094	1,059	1,013	810	1,062	1,275	1,301	1,285	1,232	1,312	1,247	1,165
Below Normal (13%)	902	888	796	812	989	1,048	1,195	1,240	1,209	1,247	1,129	1,006
Dry (24%)	664	606	700	575	718	833	1,010	1,088	1,108	1,042	911	840
Critical (15%)	225	210	283	352	413	598	659	715	660	537	395	301

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	53	178	109	219	121	-3	49	71	35	42	17	-33
20%	108	181	171	138	88	71	69	70	87	63	7	-4
30%	72	123	114	88	121	115	84	100	108	54	7	-9
40%	45	102	88	119	110	206	89	111	80	47	-20	-2
50%	35	75	52	63	36	109	146	159	42	44	11	-3
60%	35	61	3	15	27	12	99	95	19	50	81	37
70%	40	45	103	3	-29	11	91	59	60	38	76	68
80%	4	-14	90	-12	-3	36	17	28	15	37	66	-34
90%	117	36	35	41	76	-5	8	33	60	126	71	80
Long Term												
Full Simulation Period[a]	40	87	76	57	53	62	65	70	45	45	38	3
Water Year Types[b,c]												
Wet (32%)	62	174	126	69	69	55	50	60	49	35	2	-17
Above Normal (16%)	69	86	68	73	81	145	103	101	50	54	12	1
Below Normal (13%)	36	65	70	103	100	105	119	143	84	76	91	16
Dry (24%)	16	33	50	32	34	22	52	51	48	37	74	22
Critical (15%)	4	6	22	15	-20	12	32	25	-8	40	36	2

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 5-2. SWP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,210	1,101	1,189	1,182	1,344	1,450	1,347	1,359	1,312	1,312	1,297	1,306
20%	1,082	1,023	1,037	1,010	1,181	1,277	1,294	1,309	1,232	1,269	1,277	1,233
30%	1,032	988	995	944	1,053	1,184	1,253	1,259	1,184	1,256	1,248	1,197
40%	994	939	966	833	994	1,037	1,213	1,202	1,165	1,247	1,225	1,137
50%	946	903	910	787	909	982	1,119	1,104	1,151	1,233	1,154	1,079
60%	878	822	843	679	793	935	1,071	1,066	1,131	1,167	1,032	972
70%	748	613	558	615	762	844	937	1,014	1,053	1,052	868	848
80%	453	409	376	323	674	769	864	976	1,003	907	753	796
90%	195	207	275	205	332	708	745	824	786	636	403	312
Long Term												
Full Simulation Period[a]	827	766	791	732	889	1,000	1,076	1,106	1,090	1,083	997	959
Water Year Types[b,c]												
Wet (32%)	1,129	1,045	1,094	1,067	1,210	1,297	1,313	1,316	1,246	1,290	1,279	1,258
Above Normal (16%)	1,024	973	944	737	981	1,130	1,199	1,185	1,182	1,258	1,235	1,164
Below Normal (13%)	866	823	726	709	890	943	1,076	1,097	1,126	1,171	1,038	990
Dry (24%)	648	573	650	543	684	811	958	1,037	1,060	1,004	837	818
Critical (15%)	221	204	261	337	433	586	627	690	668	497	359	298

Alternative 2 021719

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,321	1,352	1,339	1,460	1,490	1,508	1,420	1,436	1,386	1,390	1,353	1,336
20%	1,224	1,206	1,242	1,331	1,469	1,476	1,387	1,411	1,358	1,373	1,308	1,271
30%	1,171	1,147	1,131	1,205	1,386	1,461	1,368	1,388	1,341	1,344	1,267	1,219
40%	1,095	1,092	1,084	1,082	1,273	1,404	1,344	1,358	1,321	1,324	1,228	1,166
50%	1,043	1,015	1,010	989	1,132	1,320	1,317	1,331	1,306	1,275	1,163	1,098
60%	941	927	929	778	989	1,179	1,267	1,290	1,272	1,211	1,092	1,037
70%	785	714	680	617	833	982	1,113	1,151	1,205	1,124	1,032	957
80%	529	441	487	367	714	867	949	1,021	1,083	1,021	923	838
90%	283	272	382	243	420	745	817	914	924	818	545	421
Long Term												
Full Simulation Period[a]	903	888	908	886	1,062	1,189	1,192	1,236	1,206	1,162	1,070	1,002
Water Year Types[b,c]												
Wet (32%)	1,256	1,254	1,254	1,247	1,405	1,475	1,390	1,403	1,347	1,361	1,310	1,284
Above Normal (16%)	1,126	1,095	1,062	937	1,266	1,422	1,365	1,380	1,336	1,343	1,262	1,195
Below Normal (13%)	956	902	826	947	1,077	1,222	1,273	1,327	1,301	1,227	1,090	1,037
Dry (24%)	678	664	753	640	793	966	1,070	1,139	1,167	1,099	993	889
Critical (15%)	222	232	320	399	530	659	710	798	734	577	449	338

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	110	251	150	278	146	58	73	76	74	78	57	30
20%	142	184	205	320	288	199	94	103	126	105	31	38
30%	140	158	136	261	333	277	115	129	157	88	19	21
40%	101	153	118	249	279	367	131	156	156	77	3	29
50%	96	112	100	202	224	337	199	227	155	42	9	19
60%	63	106	86	99	196	244	196	224	141	44	61	64
70%	37	101	121	3	71	138	176	137	152	72	164	109
80%	76	32	111	43	40	98	85	45	80	114	170	42
90%	88	65	107	38	88	37	72	90	138	182	142	109
Long Term												
Full Simulation Period[a]	76	123	117	154	173	188	116	130	116	78	72	43
Water Year Types[b,c]												
Wet (32%)	127	209	160	180	196	178	76	87	101	71	32	26
Above Normal (16%)	102	122	118	200	285	292	166	195	154	86	27	31
Below Normal (13%)	90	79	101	238	188	279	197	230	176	56	52	46
Dry (24%)	30	91	103	98	109	155	111	102	107	94	155	71
Critical (15%)	1	28	59	62	97	73	83	107	66	80	90	40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 5-3. SWP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,210	1,101	1,189	1,182	1,344	1,450	1,347	1,359	1,312	1,312	1,297	1,306
20%	1,082	1,023	1,037	1,010	1,181	1,277	1,294	1,309	1,232	1,269	1,277	1,233
30%	1,032	988	995	944	1,053	1,184	1,253	1,259	1,184	1,256	1,248	1,197
40%	994	939	966	833	994	1,037	1,213	1,202	1,165	1,247	1,225	1,137
50%	946	903	910	787	909	982	1,119	1,104	1,151	1,233	1,154	1,079
60%	878	822	843	679	793	935	1,071	1,066	1,131	1,167	1,032	972
70%	748	613	558	615	762	844	937	1,014	1,053	1,052	868	848
80%	453	409	376	323	674	769	864	976	1,003	907	753	796
90%	195	207	275	205	332	708	745	824	786	636	403	312
Long Term												
Full Simulation Period[a]	827	766	791	732	889	1,000	1,076	1,106	1,090	1,083	997	959
Water Year Types[b,c]												
Wet (32%)	1,129	1,045	1,094	1,067	1,210	1,297	1,313	1,316	1,246	1,290	1,279	1,258
Above Normal (16%)	1,024	973	944	737	981	1,130	1,199	1,185	1,182	1,258	1,235	1,164
Below Normal (13%)	866	823	726	709	890	943	1,076	1,097	1,126	1,171	1,038	990
Dry (24%)	648	573	650	543	684	811	958	1,037	1,060	1,004	837	818
Critical (15%)	221	204	261	337	433	586	627	690	668	497	359	298

Alternative 3 021719

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,320	1,343	1,362	1,451	1,484	1,508	1,420	1,435	1,384	1,391	1,348	1,333
20%	1,230	1,199	1,237	1,325	1,462	1,478	1,386	1,409	1,356	1,362	1,299	1,260
30%	1,165	1,143	1,148	1,191	1,393	1,459	1,368	1,383	1,336	1,345	1,266	1,214
40%	1,098	1,088	1,079	1,107	1,267	1,422	1,339	1,349	1,316	1,318	1,231	1,164
50%	1,039	1,012	1,013	994	1,127	1,327	1,310	1,324	1,290	1,273	1,169	1,102
60%	943	916	919	745	1,014	1,211	1,265	1,290	1,267	1,203	1,094	1,028
70%	722	734	691	619	832	979	1,101	1,141	1,194	1,115	1,039	979
80%	502	459	488	354	718	844	943	1,014	1,074	1,018	944	846
90%	289	269	374	226	417	749	823	925	934	842	549	415
Long Term												
Full Simulation Period[a]	896	889	913	886	1,060	1,190	1,190	1,233	1,202	1,160	1,070	1,005
Water Year Types[b,c]												
Wet (32%)	1,258	1,256	1,265	1,248	1,405	1,480	1,385	1,397	1,343	1,356	1,301	1,280
Above Normal (16%)	1,124	1,097	1,078	929	1,255	1,422	1,363	1,378	1,331	1,345	1,268	1,193
Below Normal (13%)	942	897	826	947	1,082	1,228	1,265	1,324	1,297	1,231	1,114	1,032
Dry (24%)	657	674	752	637	789	958	1,067	1,134	1,162	1,097	990	902
Critical (15%)	222	220	323	414	534	663	715	802	736	577	450	354

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	110	242	172	268	141	59	73	76	72	79	51	27
20%	148	177	201	314	281	201	93	101	124	94	22	27
30%	133	155	153	247	340	275	115	124	151	88	17	16
40%	105	150	112	274	273	385	126	147	152	71	6	27
50%	93	108	103	206	218	345	191	220	140	40	14	23
60%	65	94	76	66	221	276	194	224	136	36	62	55
70%	-26	121	133	5	70	135	164	127	141	64	171	131
80%	49	50	112	31	44	76	79	37	71	111	191	50
90%	94	62	99	21	85	40	78	101	149	206	146	103
Long Term												
Full Simulation Period[a]	69	123	123	154	172	190	114	127	112	77	73	46
Water Year Types[b,c]												
Wet (32%)	129	211	170	181	195	183	71	81	97	66	23	22
Above Normal (16%)	100	124	133	192	273	292	165	193	149	87	33	29
Below Normal (13%)	76	74	100	237	193	285	189	227	171	60	76	42
Dry (24%)	9	101	102	94	105	147	109	96	102	92	152	84
Critical (15%)	1	16	62	77	102	77	88	111	68	80	91	56

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 5-4. SWP Total Capacity, Monthly Capacity

No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,210	1,101	1,189	1,182	1,344	1,450	1,347	1,359	1,312	1,312	1,297	1,306
20%	1,082	1,023	1,037	1,010	1,181	1,277	1,294	1,309	1,232	1,269	1,277	1,233
30%	1,032	988	995	944	1,053	1,184	1,253	1,259	1,184	1,256	1,248	1,197
40%	994	939	966	833	994	1,037	1,213	1,202	1,165	1,247	1,225	1,137
50%	946	903	910	787	909	982	1,119	1,104	1,151	1,233	1,154	1,079
60%	878	822	843	679	793	935	1,071	1,066	1,131	1,167	1,032	972
70%	748	613	558	615	762	844	937	1,014	1,053	1,052	868	848
80%	453	409	376	323	674	769	864	976	1,003	907	753	796
90%	195	207	275	205	332	708	745	824	786	636	403	312
Long Term												
Full Simulation Period[a]	827	766	791	732	889	1,000	1,076	1,106	1,090	1,083	997	959
Water Year Types[b,c]												
Wet (32%)	1,129	1,045	1,094	1,067	1,210	1,297	1,313	1,316	1,246	1,290	1,279	1,258
Above Normal (16%)	1,024	973	944	737	981	1,130	1,199	1,185	1,182	1,258	1,235	1,164
Below Normal (13%)	866	823	726	709	890	943	1,076	1,097	1,126	1,171	1,038	990
Dry (24%)	648	573	650	543	684	811	958	1,037	1,060	1,004	837	818
Critical (15%)	221	204	261	337	433	586	627	690	668	497	359	298

Alternative 4 043019

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,273	1,274	1,268	1,378	1,461	1,456	1,356	1,393	1,324	1,332	1,295	1,271
20%	1,111	1,071	1,084	1,143	1,288	1,259	1,295	1,296	1,228	1,266	1,251	1,188
30%	1,048	1,004	998	997	1,169	1,180	1,219	1,243	1,181	1,253	1,216	1,126
40%	975	942	949	925	1,050	1,065	1,182	1,140	1,162	1,228	1,163	1,074
50%	899	863	889	829	967	997	1,117	1,081	1,139	1,181	1,090	990
60%	812	738	789	716	876	921	970	1,052	1,103	1,115	933	901
70%	667	468	480	645	780	840	912	1,006	1,029	930	859	825
80%	425	340	361	275	678	779	834	924	946	867	793	720
90%	213	232	267	216	327	706	755	804	792	701	377	284
Long Term												
Full Simulation Period[a]	812	767	793	782	939	1,009	1,055	1,093	1,081	1,062	977	905
Water Year Types[b,c]												
Wet (32%)	1,169	1,153	1,148	1,128	1,278	1,318	1,300	1,315	1,252	1,290	1,265	1,214
Above Normal (16%)	999	962	934	840	1,054	1,123	1,220	1,189	1,181	1,254	1,192	1,107
Below Normal (13%)	843	700	650	808	980	984	1,060	1,057	1,112	1,119	996	946
Dry (24%)	579	508	622	546	695	809	888	999	1,014	931	820	735
Critical (15%)	198	210	286	339	449	575	623	697	686	523	362	263

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Capacity (MW)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	63	173	78	195	117	7	8	34	12	20	-1	-35
20%	29	48	47	132	107	-18	2	-13	-4	-2	-26	-45
30%	17	16	3	53	116	-3	-34	-15	-3	-3	-33	-72
40%	-19	3	-18	92	56	28	-30	-62	-2	-19	-62	-63
50%	-47	-41	-22	42	58	15	-1	-23	-12	-51	-64	-89
60%	-66	-84	-54	37	83	-15	-100	-13	-29	-52	-99	-71
70%	-81	-145	-78	30	18	-5	-25	-8	-24	-121	-10	-23
80%	-28	-69	-14	-48	4	11	-30	-52	-57	-40	40	-76
90%	18	25	-8	11	-5	-2	10	-21	6	65	-25	-28
Long Term												
Full Simulation Period[a]	-14	1	2	50	50	9	-21	-13	-9	-22	-21	-54
Water Year Types[b,c]												
Wet (32%)	40	108	54	61	68	21	-14	-1	6	0	-13	-44
Above Normal (16%)	-25	-11	-11	103	72	-7	22	5	-1	-4	-43	-56
Below Normal (13%)	-24	-123	-76	99	90	41	-16	-40	-14	-52	-42	-45
Dry (24%)	-68	-65	-28	4	11	-2	-70	-38	-46	-73	-18	-83
Critical (15%)	-23	6	25	1	16	-11	-4	7	19	26	3	-35

a Based on the 82-year simulation period.

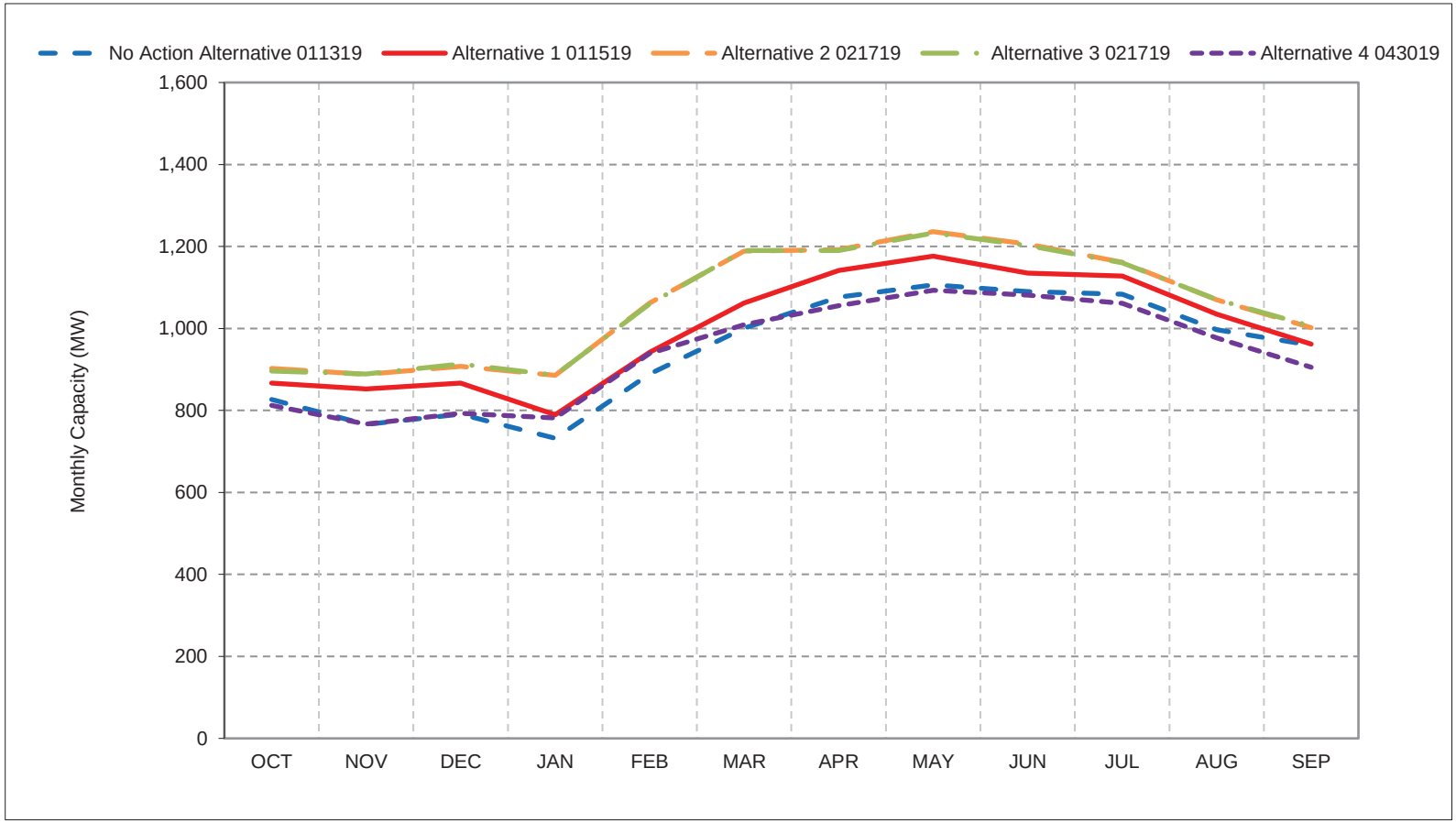
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

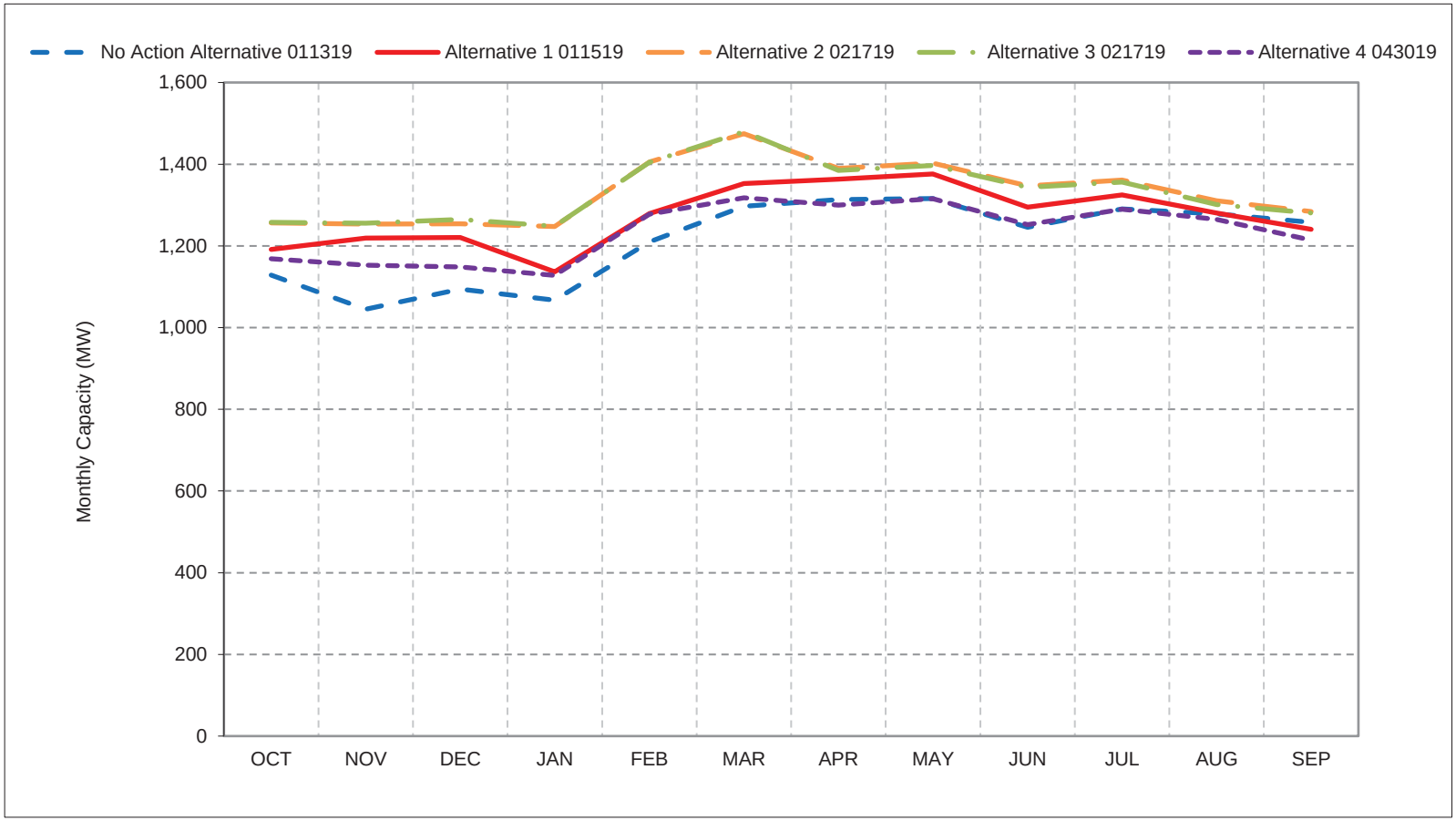
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-1. SWP Total Capacity, Long-Term Average Capacity



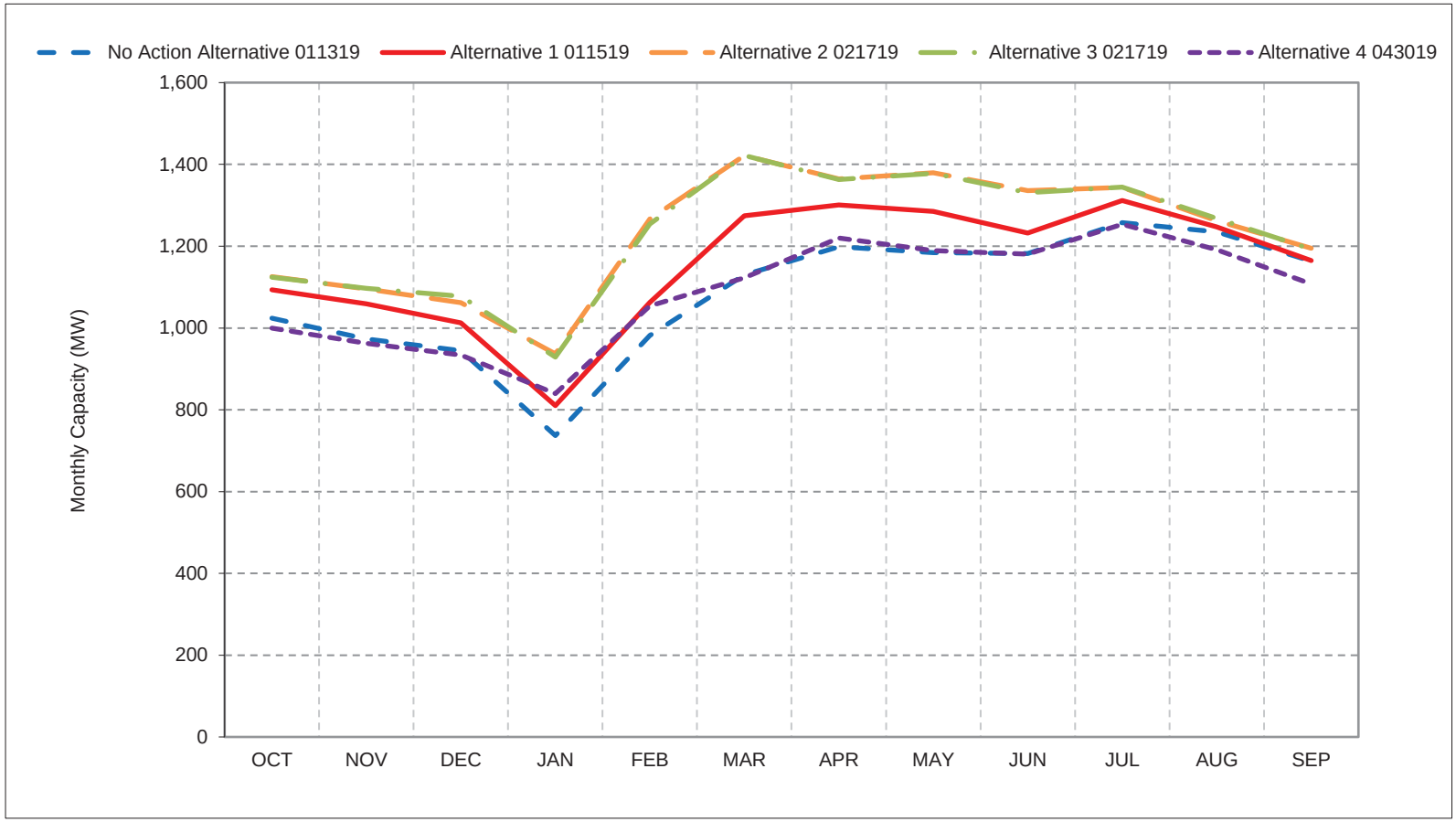
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-2. SWP Total Capacity, Wet Year Average Capacity



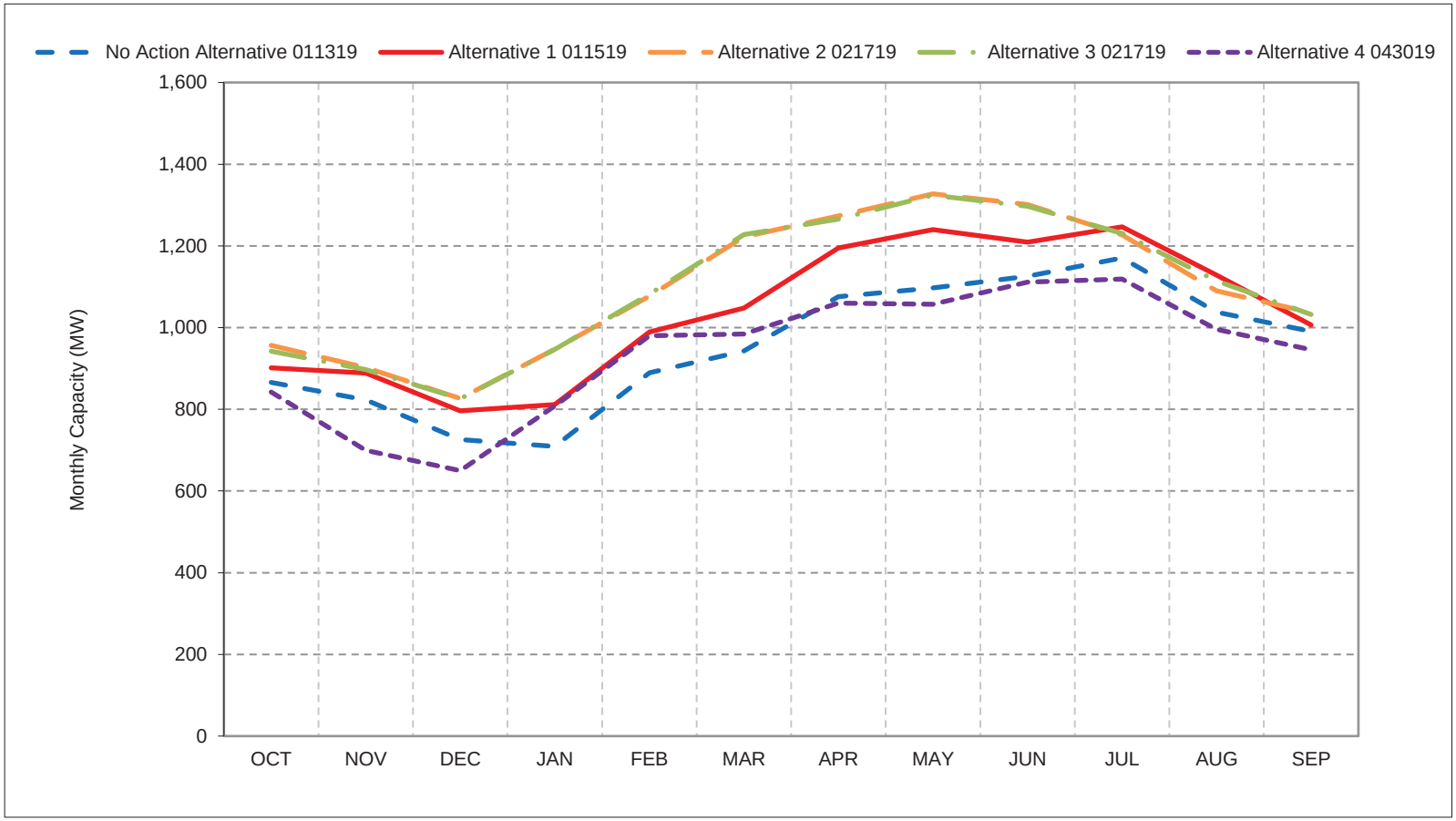
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-3. SWP Total Capacity, Above Normal Year Average Capacity



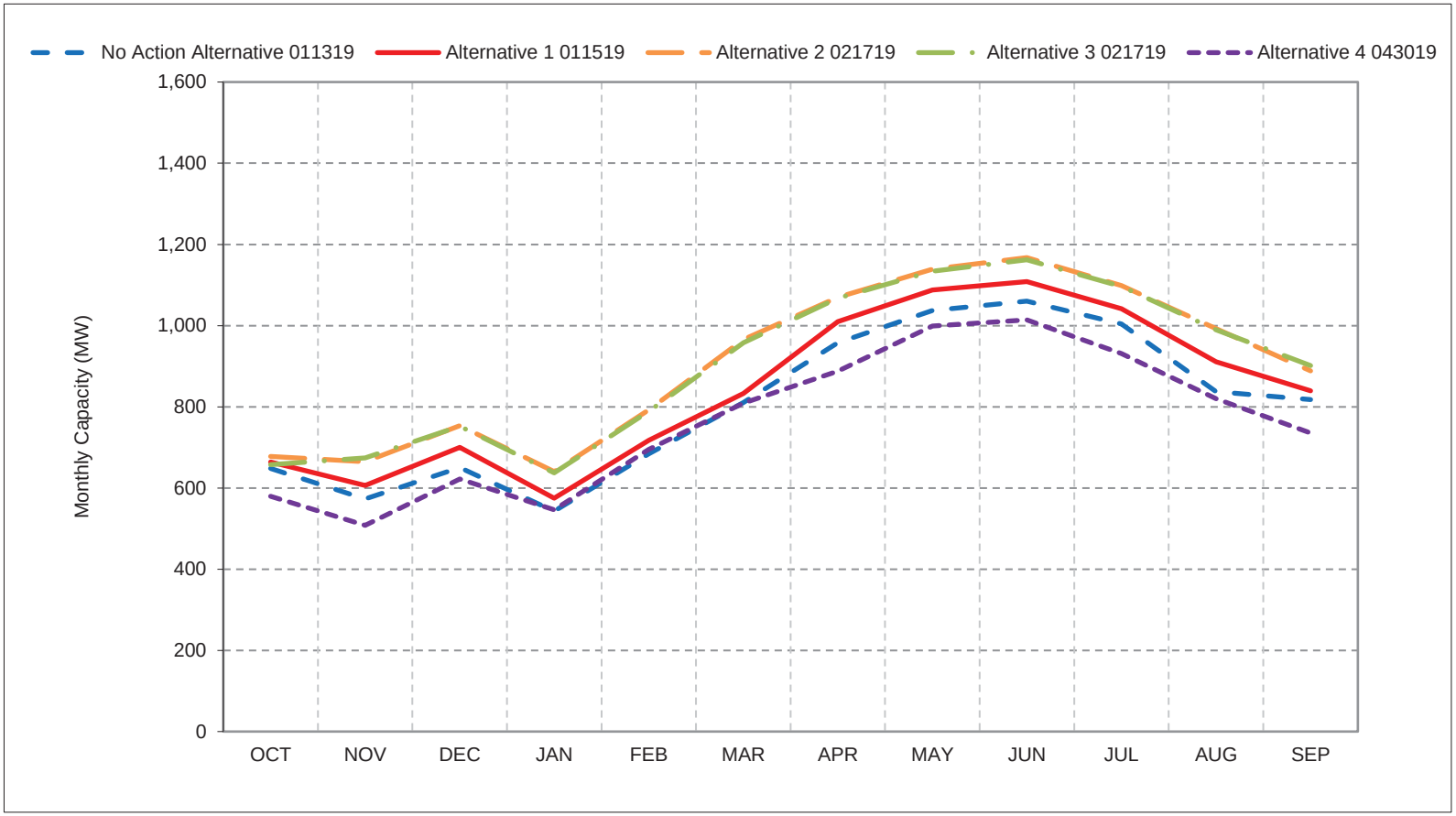
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-4. SWP Total Capacity, Below Normal Year Average Capacity



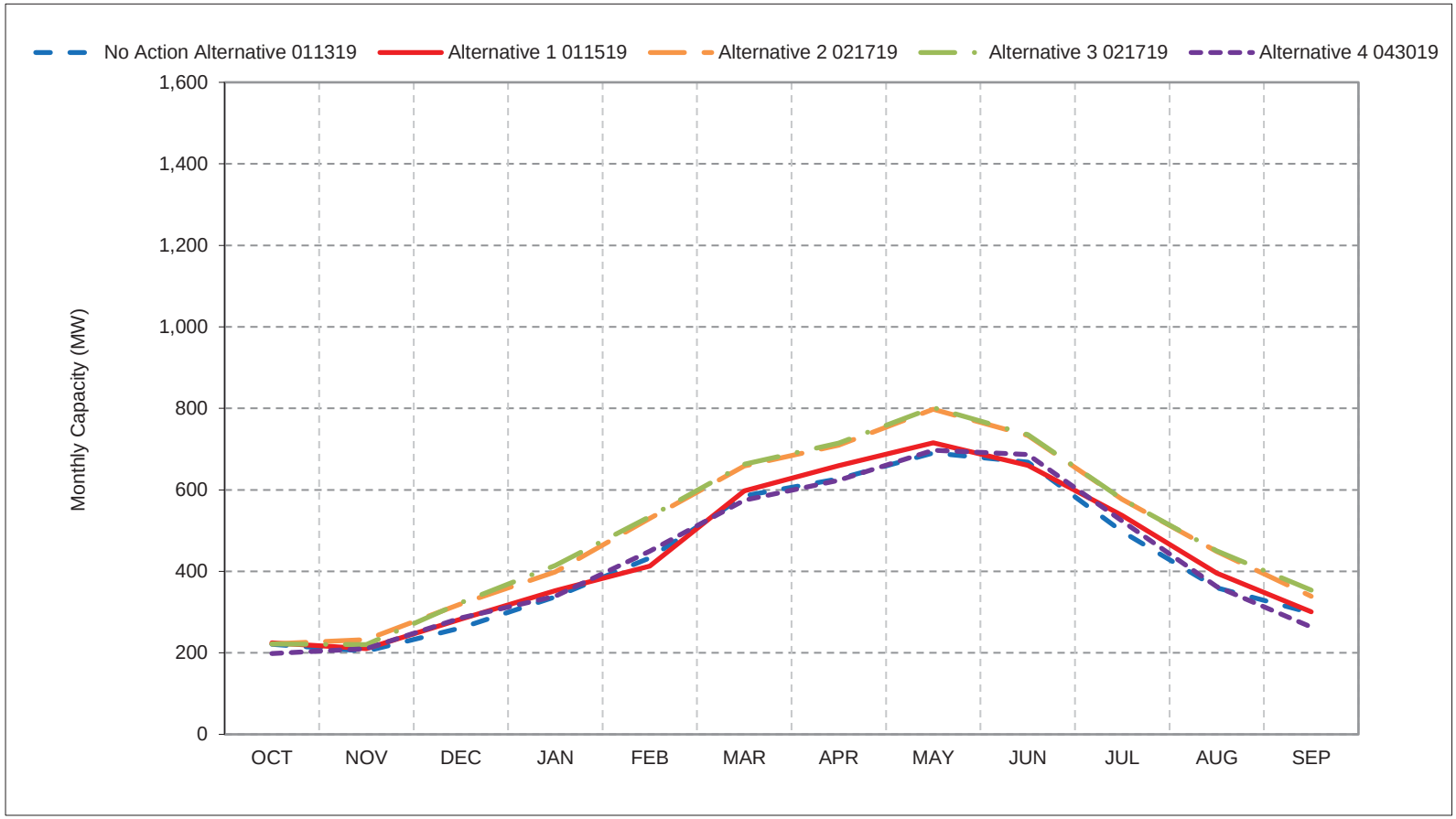
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-5. SWP Total Capacity, Dry Year Average Capacity



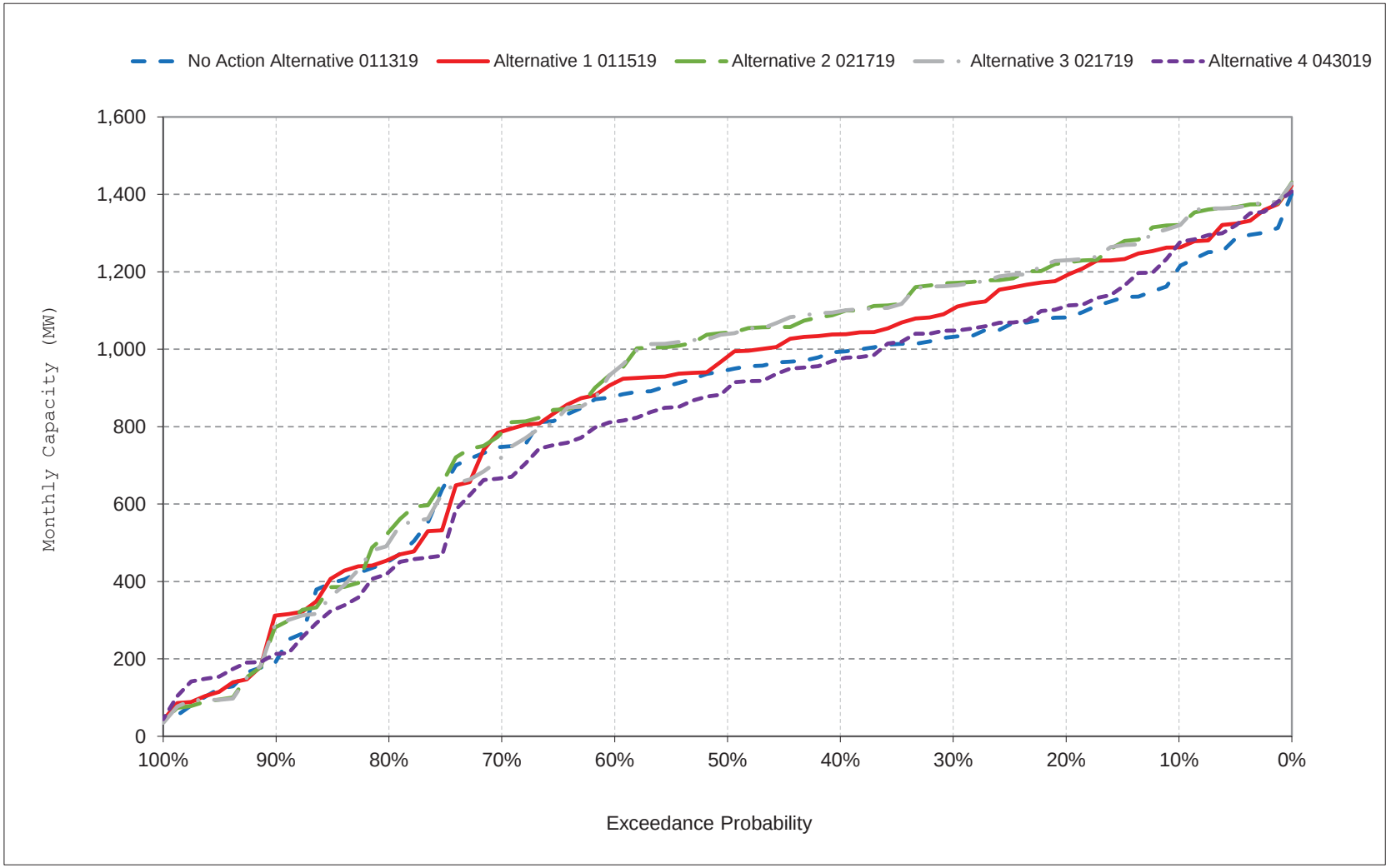
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-6. SWP Total Capacity, Critical Year Average Capacity



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

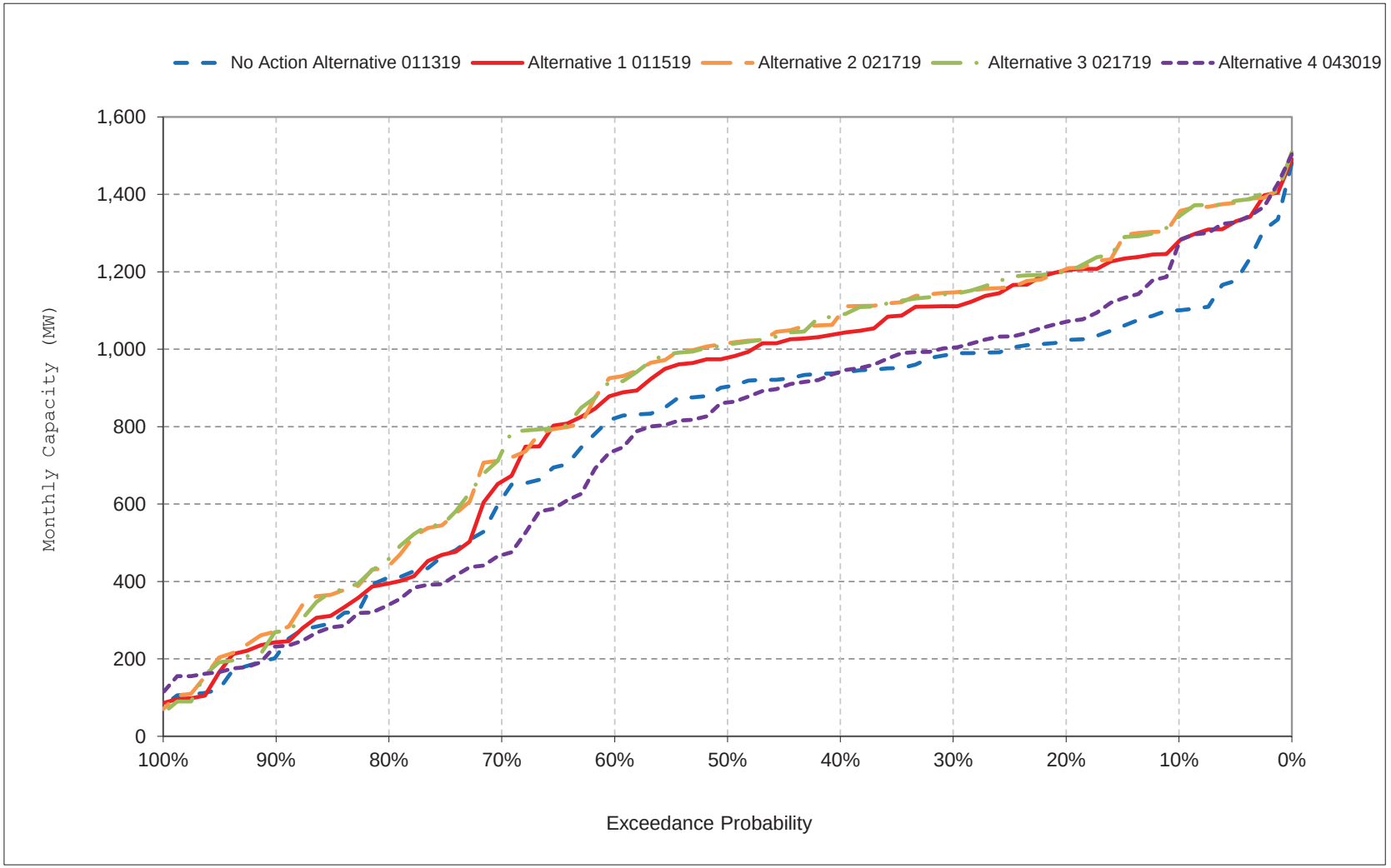
Figure 5-7. SWP Total Capacity, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

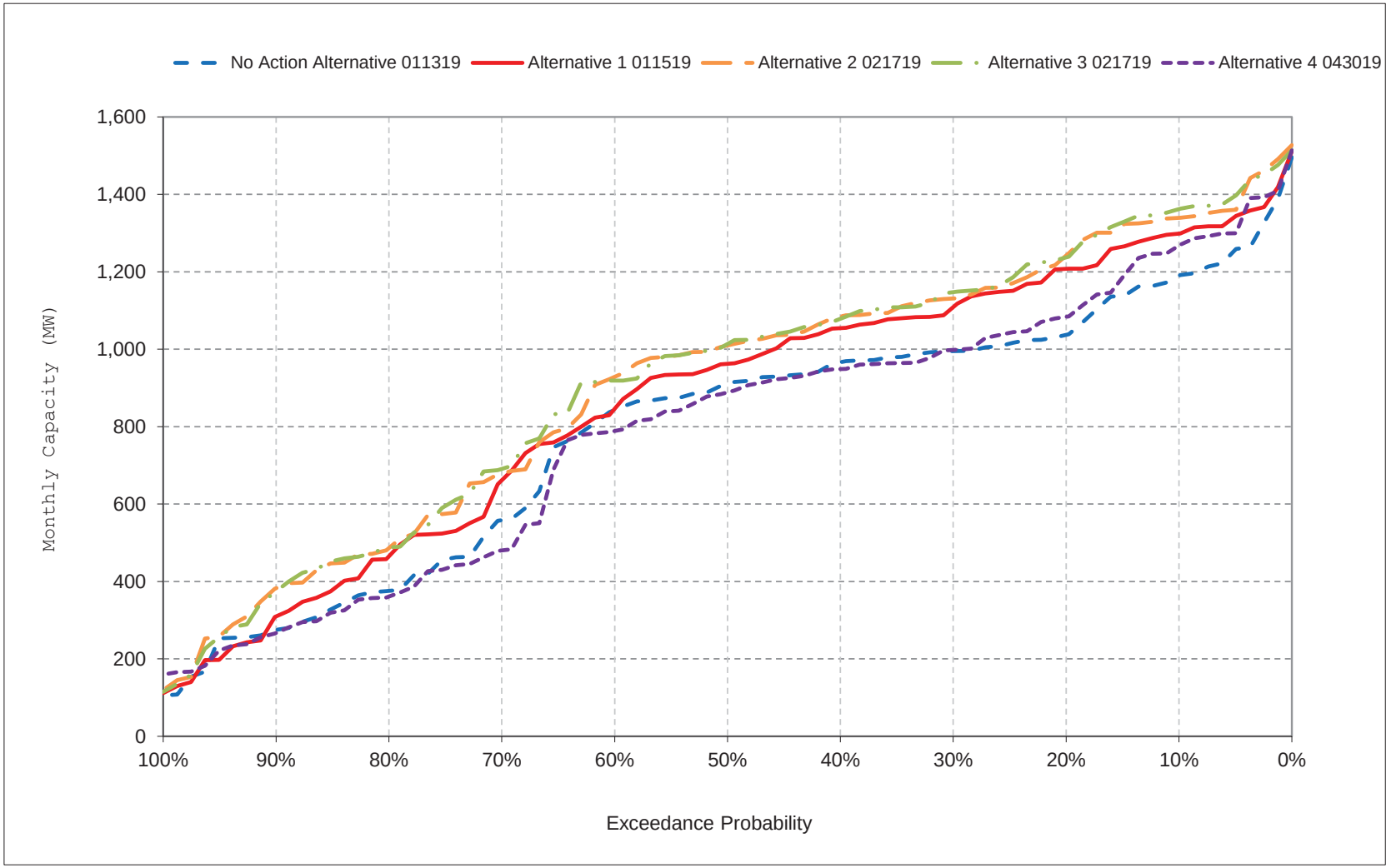
Figure 5-8. SWP Total Capacity, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

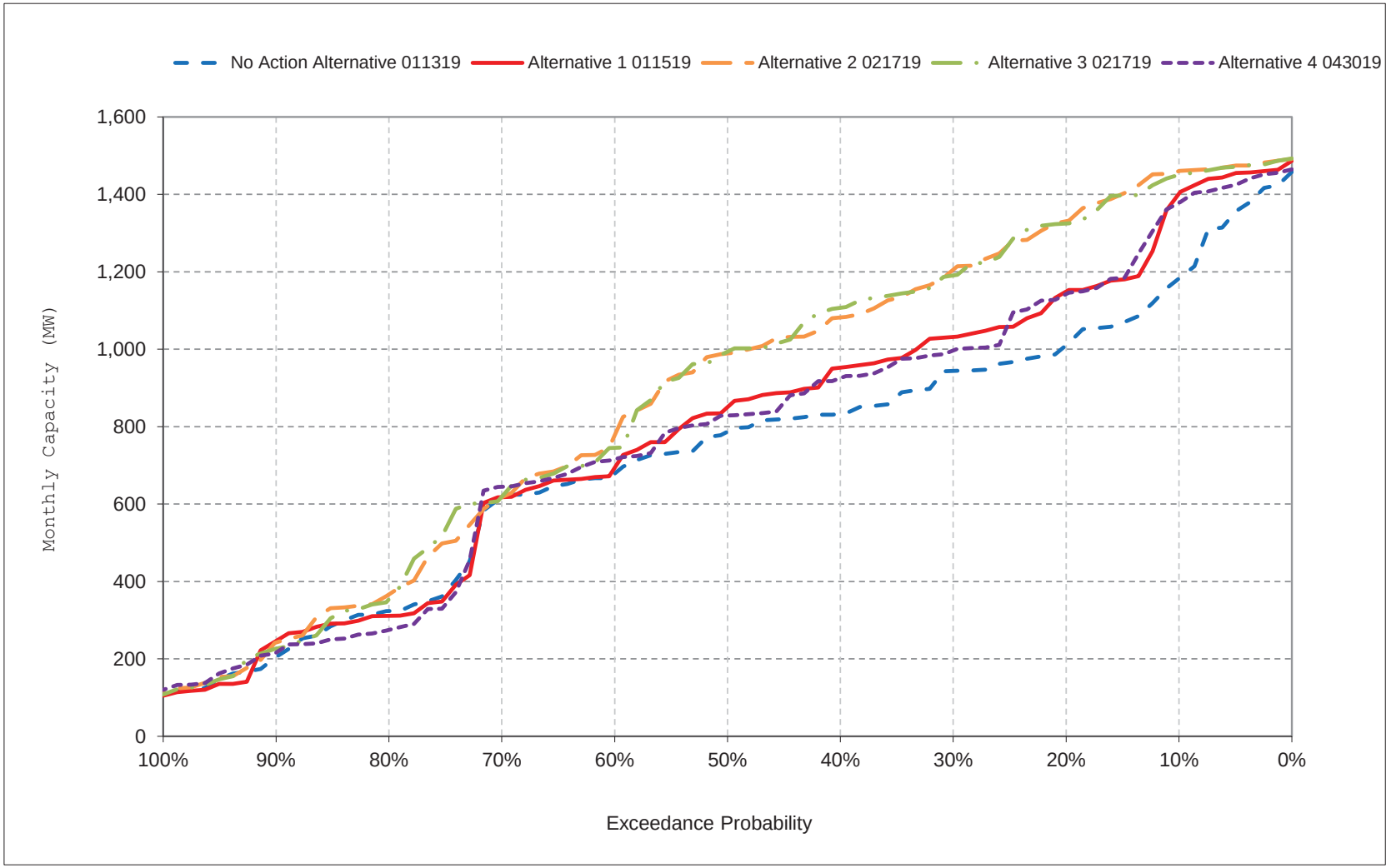
Figure 5-9. SWP Total Capacity, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

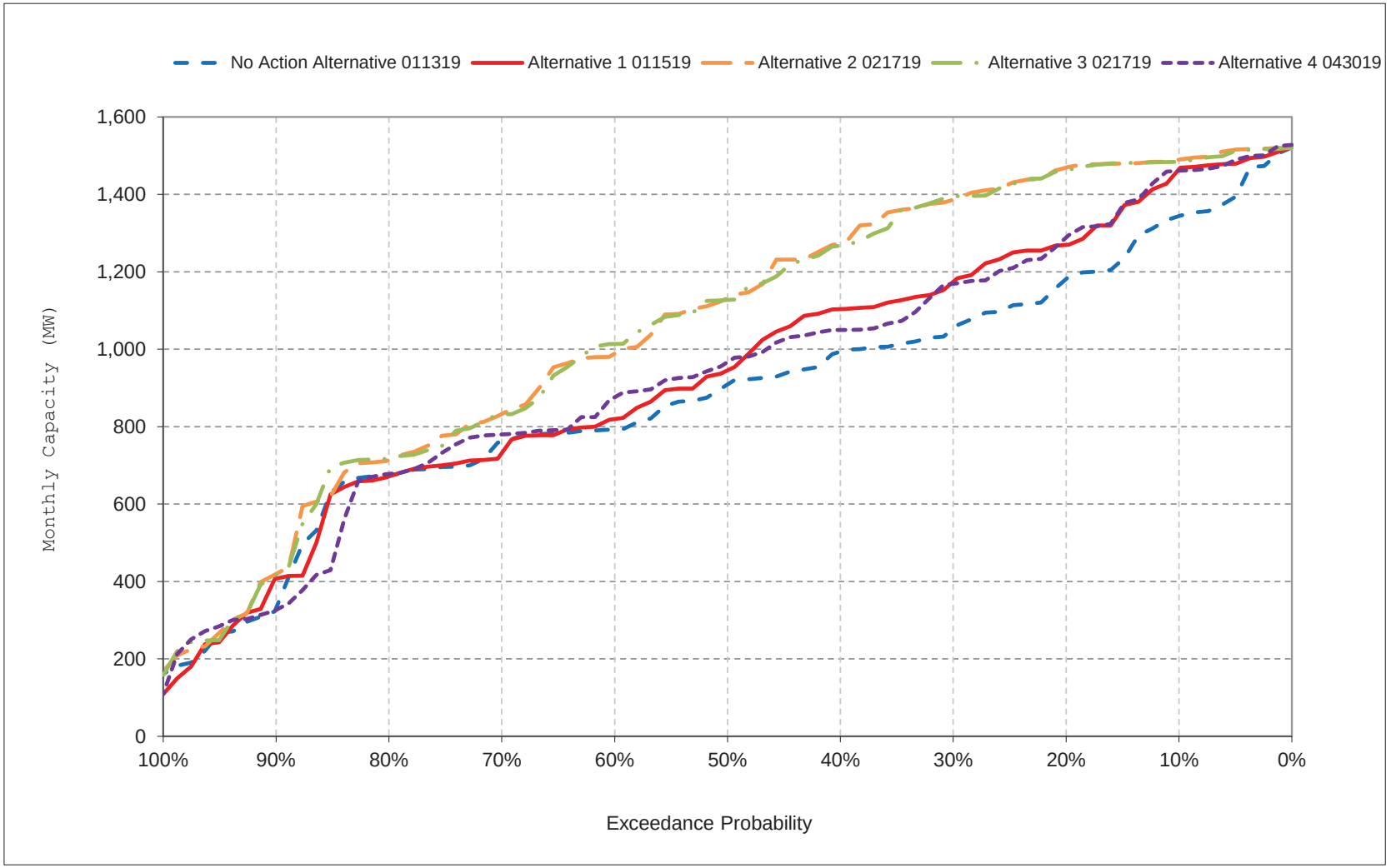
Figure 5-10. SWP Total Capacity, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

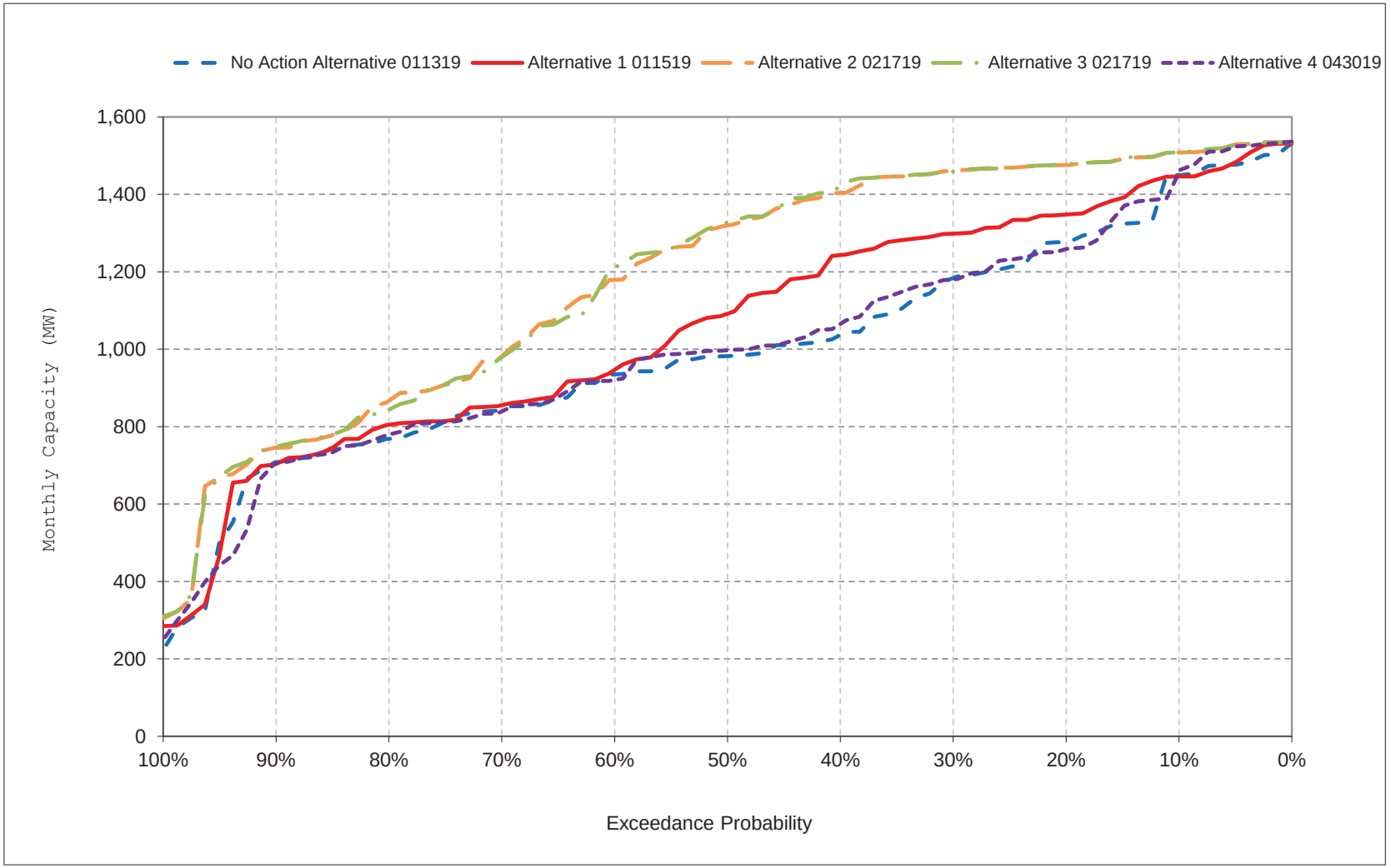
Figure 5-11. SWP Total Capacity, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

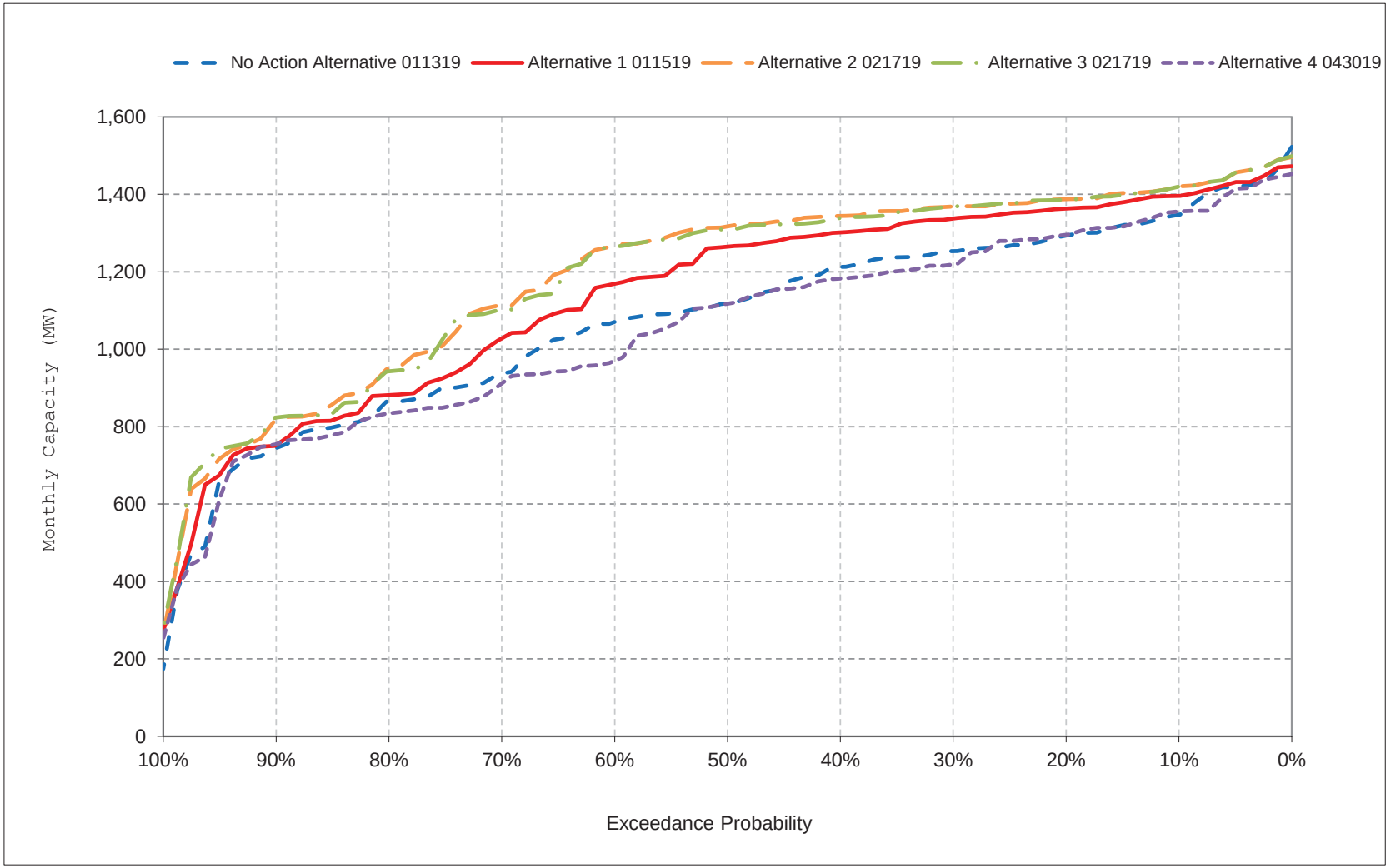
Figure 5-12. SWP Total Capacity, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

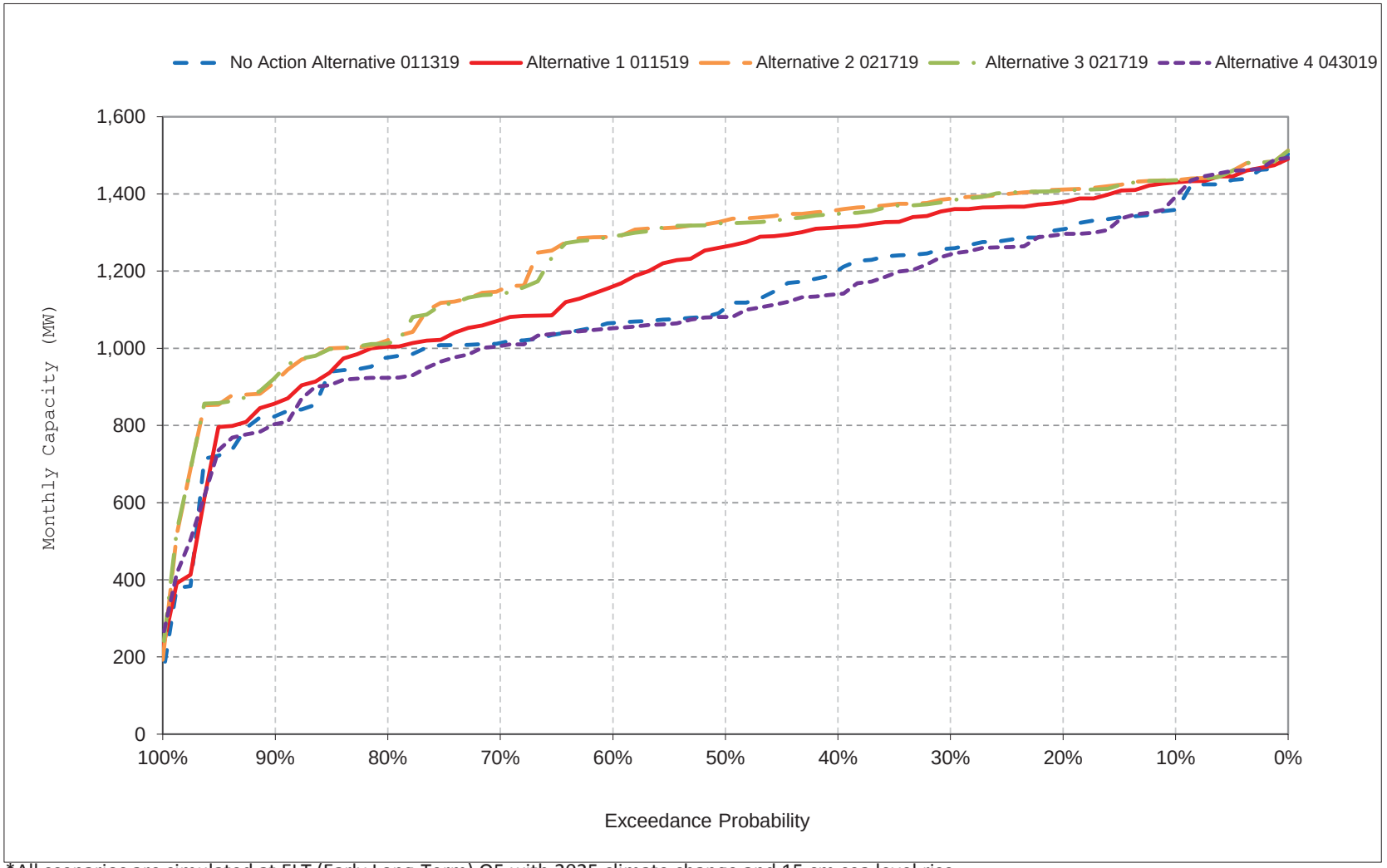
Figure 5-13. SWP Total Capacity, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-14. SWP Total Capacity, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

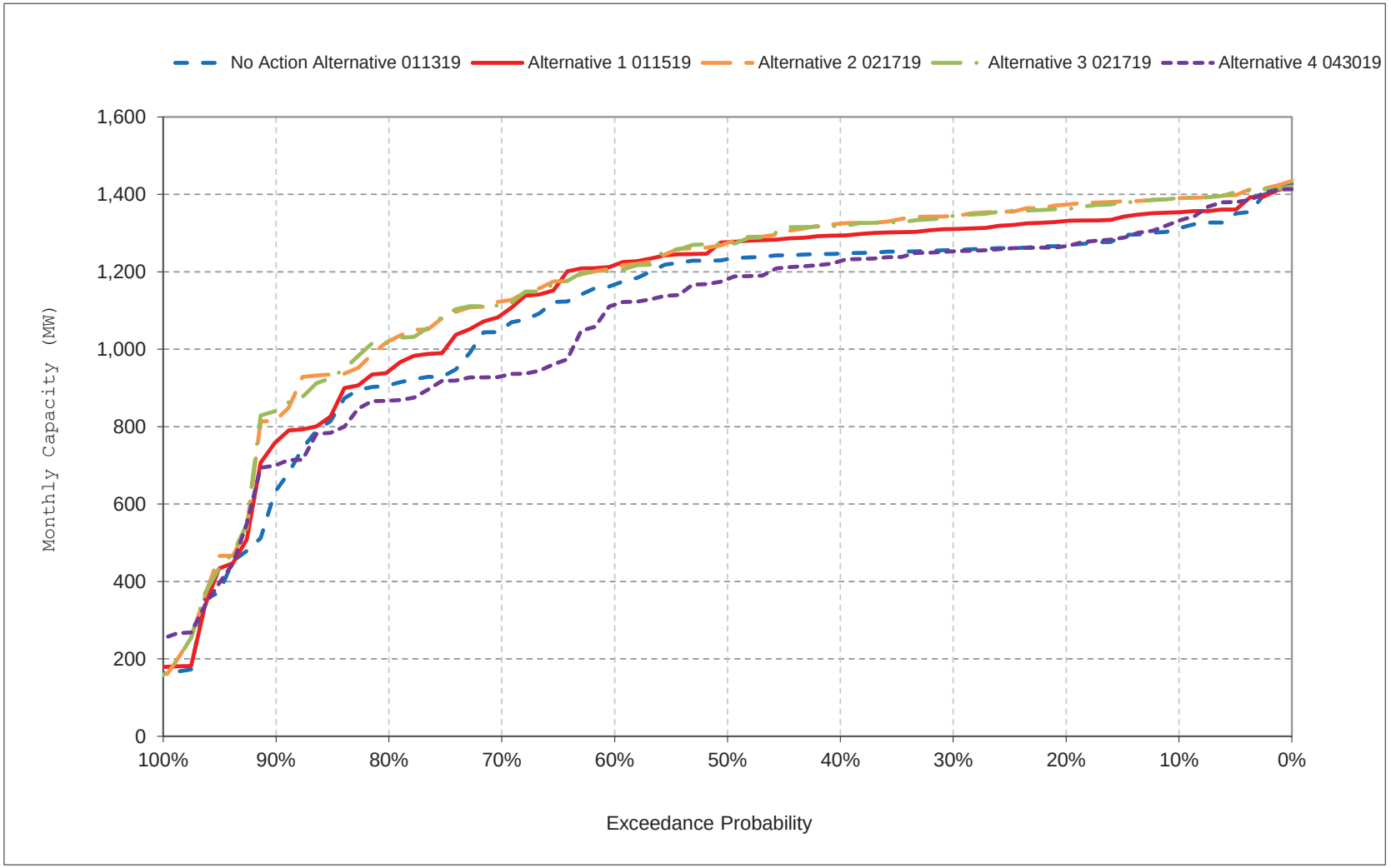
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-15. SWP Total Capacity, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

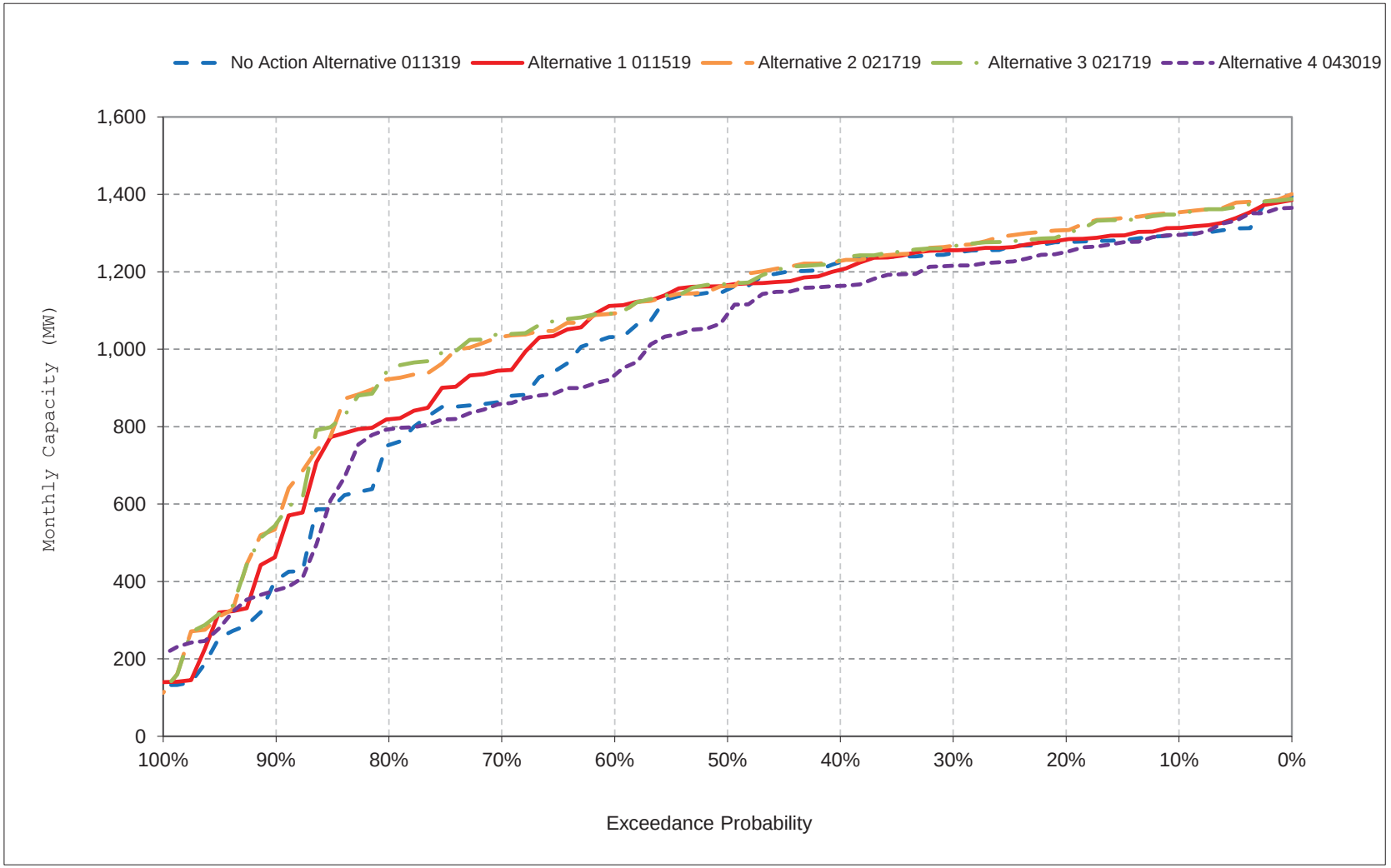
Figure 5-16. SWP Total Capacity, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

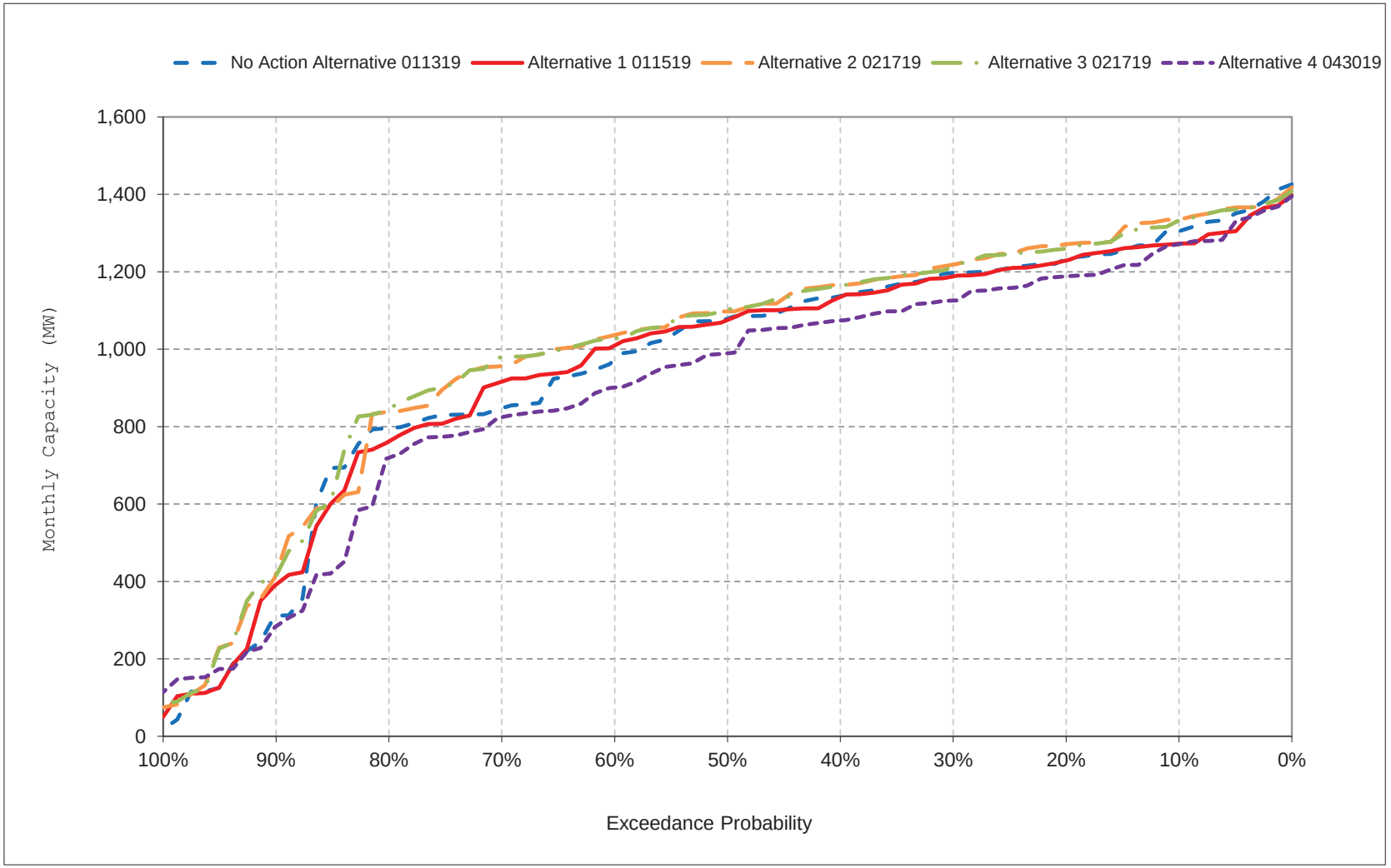
Figure 5-17. SWP Total Capacity, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 5-18. SWP Total Capacity, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 6-1. SWP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	488	393	452	663	683	688	599	719	538	697	619	656
20%	422	344	355	242	552	560	418	495	469	680	605	611
30%	396	323	302	183	214	378	352	427	437	658	576	577
40%	368	310	277	142	165	273	335	396	428	649	548	524
50%	338	283	263	102	121	134	281	355	415	632	506	458
60%	283	254	249	75	75	96	232	286	401	576	417	347
70%	235	208	211	57	59	84	175	263	368	469	313	285
80%	193	156	170	47	48	59	121	237	352	359	227	234
90%	97	93	123	36	32	48	93	214	266	264	153	146
Long Term												
Full Simulation Period[a]	312	268	278	198	235	284	306	396	407	537	433	419
Water Year Types[b,c]												
Wet (32%)	441	365	386	416	511	591	521	620	487	624	552	617
Above Normal (16%)	392	326	297	149	208	329	328	383	413	668	607	557
Below Normal (13%)	298	271	245	117	112	116	242	317	390	625	479	366
Dry (24%)	230	210	237	81	76	76	170	284	405	473	304	274
Critical (15%)	97	92	121	51	44	69	106	184	243	232	157	133

Alternative 1 011519

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	486	420	493	758	731	769	617	714	582	719	632	514
20%	441	399	400	275	609	607	460	576	525	699	612	481
30%	421	386	363	224	386	511	379	504	500	693	597	437
40%	373	359	330	180	192	344	353	440	481	667	559	395
50%	334	326	311	95	160	254	323	413	464	648	502	379
60%	295	290	271	78	77	118	266	356	433	568	453	353
70%	243	220	239	65	63	90	186	307	418	471	355	289
80%	193	181	183	48	47	60	130	253	370	379	281	250
90%	108	121	116	36	31	47	102	203	288	282	215	168
Long Term												
Full Simulation Period[a]	318	300	320	227	274	332	330	431	447	558	457	356
Water Year Types[b,c]												
Wet (32%)	419	415	462	472	562	647	526	632	516	642	554	420
Above Normal (16%)	438	371	348	177	270	469	390	450	455	712	623	510
Below Normal (13%)	314	308	290	143	199	170	300	418	466	665	550	366
Dry (24%)	238	221	246	90	83	76	184	303	447	481	339	291
Critical (15%)	105	99	132	54	44	78	109	197	269	238	178	147

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-2	27	41	95	49	81	17	-5	44	23	14	-142
20%	19	55	46	33	57	47	42	81	56	19	7	-130
30%	25	63	60	41	172	132	28	77	62	35	21	-140
40%	5	48	53	38	27	71	18	44	53	18	11	-129
50%	-3	43	48	-7	39	121	41	58	49	16	-4	-79
60%	12	35	21	3	2	23	35	70	32	-8	35	7
70%	8	13	29	8	4	5	11	45	50	2	42	4
80%	-1	25	13	1	-1	1	9	16	18	20	54	17
90%	11	28	-6	0	-1	-1	9	-11	22	18	62	22
Long Term												
Full Simulation Period[a]	6	32	42	28	39	49	23	34	40	21	24	-64
Water Year Types[b,c]												
Wet (32%)	-22	51	76	56	52	57	5	12	30	18	2	-198
Above Normal (16%)	46	45	51	28	62	140	62	67	42	44	16	-47
Below Normal (13%)	17	37	45	26	87	54	58	101	75	40	71	0
Dry (24%)	7	10	9	9	6	0	15	18	42	8	36	17
Critical (15%)	8	7	11	2	0	9	3	13	26	6	21	13

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 6-2. SWP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	488	393	452	663	683	688	599	719	538	697	619	656
20%	422	344	355	242	552	560	418	495	469	680	605	611
30%	396	323	302	183	214	378	352	427	437	658	576	577
40%	368	310	277	142	165	273	335	396	428	649	548	524
50%	338	283	263	102	121	134	281	355	415	632	506	458
60%	283	254	249	75	75	96	232	286	401	576	417	347
70%	235	208	211	57	59	84	175	263	368	469	313	285
80%	193	156	170	47	48	59	121	237	352	359	227	234
90%	97	93	123	36	32	48	93	214	266	264	153	146
Long Term												
Full Simulation Period[a]	312	268	278	198	235	284	306	396	407	537	433	419
Water Year Types[b,c]												
Wet (32%)	441	365	386	416	511	591	521	620	487	624	552	617
Above Normal (16%)	392	326	297	149	208	329	328	383	413	668	607	557
Below Normal (13%)	298	271	245	117	112	116	242	317	390	625	479	366
Dry (24%)	230	210	237	81	76	76	170	284	405	473	304	274
Critical (15%)	97	92	121	51	44	69	106	184	243	232	157	133

Alternative 2 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	485	422	511	806	779	853	601	685	626	726	632	511
20%	466	404	379	382	617	660	440	611	605	703	600	468
30%	439	393	348	314	463	564	396	534	582	681	542	436
40%	422	377	334	231	316	463	356	471	560	663	496	396
50%	381	346	320	203	198	325	334	443	528	582	468	387
60%	330	308	295	158	177	252	302	399	494	544	437	370
70%	260	264	267	66	121	153	239	337	474	492	396	343
80%	217	220	221	53	58	106	141	277	410	426	356	296
90%	145	147	171	38	40	57	117	241	362	354	285	217
Long Term												
Full Simulation Period[a]	340	321	334	276	322	395	340	455	508	559	458	372
Water Year Types[b,c]												
Wet (32%)	455	420	451	530	607	707	523	629	543	633	524	425
Above Normal (16%)	445	387	355	236	368	533	389	492	561	706	600	496
Below Normal (13%)	347	340	316	229	239	270	333	483	604	619	474	379
Dry (24%)	258	258	278	122	123	151	208	333	496	502	406	337
Critical (15%)	107	121	168	69	60	89	119	217	304	282	234	173

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	30	60	143	97	165	1	-34	88	30	14	-145
20%	43	60	24	140	65	100	22	116	135	22	-4	-143
30%	42	70	46	131	249	186	45	107	145	23	-33	-141
40%	54	67	57	89	150	190	21	76	133	14	-52	-128
50%	43	63	58	102	77	192	52	89	113	-50	-39	-70
60%	48	54	46	83	101	156	71	113	93	-33	20	23
70%	25	57	56	9	62	68	64	74	106	23	84	58
80%	23	63	51	7	10	47	19	40	57	67	129	62
90%	48	54	49	2	8	10	24	27	96	90	132	71
Long Term												
Full Simulation Period[a]	27	53	56	77	87	111	34	59	101	22	26	-48
Water Year Types[b,c]												
Wet (32%)	13	56	66	114	97	116	2	9	57	9	-27	-193
Above Normal (16%)	53	62	58	87	159	205	61	109	148	37	-7	-60
Below Normal (13%)	49	69	71	112	127	154	91	166	214	-6	-5	13
Dry (24%)	27	48	41	41	47	75	39	48	91	29	102	63
Critical (15%)	10	30	47	17	16	21	12	33	61	50	77	39

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 6-3. SWP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	488	393	452	663	683	688	599	719	538	697	619	656
20%	422	344	355	242	552	560	418	495	469	680	605	611
30%	396	323	302	183	214	378	352	427	437	658	576	577
40%	368	310	277	142	165	273	335	396	428	649	548	524
50%	338	283	263	102	121	134	281	355	415	632	506	458
60%	283	254	249	75	75	96	232	286	401	576	417	347
70%	235	208	211	57	59	84	175	263	368	469	313	285
80%	193	156	170	47	48	59	121	237	352	359	227	234
90%	97	93	123	36	32	48	93	214	266	264	153	146
Long Term												
Full Simulation Period[a]	312	268	278	198	235	284	306	396	407	537	433	419
Water Year Types[b,c]												
Wet (32%)	441	365	386	416	511	591	521	620	487	624	552	617
Above Normal (16%)	392	326	297	149	208	329	328	383	413	668	607	557
Below Normal (13%)	298	271	245	117	112	116	242	317	390	625	479	366
Dry (24%)	230	210	237	81	76	76	170	284	405	473	304	274
Critical (15%)	97	92	121	51	44	69	106	184	243	232	157	133

Alternative 3 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	485	430	511	807	779	853	601	686	624	713	627	501
20%	463	409	388	378	616	693	437	600	590	701	588	468
30%	442	387	364	319	469	560	396	527	569	677	533	429
40%	416	369	335	232	312	487	355	467	552	652	488	396
50%	384	348	320	204	211	314	328	427	527	584	467	385
60%	329	314	298	137	173	255	303	383	489	543	438	369
70%	257	255	273	67	125	154	237	343	459	495	400	328
80%	195	218	229	54	56	104	147	280	424	425	367	292
90%	114	134	172	39	40	58	117	240	367	355	295	243
Long Term												
Full Simulation Period[a]	335	320	338	275	321	396	338	450	501	557	456	371
Water Year Types[b,c]												
Wet (32%)	452	419	460	533	607	714	522	616	540	628	507	426
Above Normal (16%)	448	387	362	230	359	534	388	489	549	708	603	497
Below Normal (13%)	337	336	306	225	245	275	327	478	589	622	491	370
Dry (24%)	245	260	281	116	120	145	207	333	493	499	410	338
Critical (15%)	107	115	170	75	64	86	114	217	298	279	232	173

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-3	38	60	143	97	165	1	-33	87	17	8	-155
20%	40	65	33	136	64	132	19	105	120	21	-17	-143
30%	46	63	61	137	255	182	44	100	132	18	-43	-148
40%	49	59	58	90	147	213	20	71	124	3	-60	-129
50%	46	65	58	102	90	180	47	72	111	-48	-39	-73
60%	46	60	48	62	98	159	72	96	88	-33	21	22
70%	22	47	62	9	66	70	62	80	91	26	87	43
80%	2	61	59	7	8	45	26	43	72	66	140	58
90%	18	41	50	3	8	10	24	27	101	92	141	97
Long Term												
Full Simulation Period[a]	23	51	60	77	86	113	31	54	95	20	24	-48
Water Year Types[b,c]												
Wet (32%)	11	55	74	117	96	124	1	-4	53	4	-44	-191
Above Normal (16%)	56	61	65	81	151	205	60	106	136	40	-5	-60
Below Normal (13%)	39	65	61	108	133	160	86	161	198	-4	11	4
Dry (24%)	15	50	45	35	44	69	37	48	88	26	106	63
Critical (15%)	10	23	49	24	20	18	8	33	55	47	75	40

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 6-4. SWP Total Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	488	393	452	663	683	688	599	719	538	697	619	656
20%	422	344	355	242	552	560	418	495	469	680	605	611
30%	396	323	302	183	214	378	352	427	437	658	576	577
40%	368	310	277	142	165	273	335	396	428	649	548	524
50%	338	283	263	102	121	134	281	355	415	632	506	458
60%	283	254	249	75	75	96	232	286	401	576	417	347
70%	235	208	211	57	59	84	175	263	368	469	313	285
80%	193	156	170	47	48	59	121	237	352	359	227	234
90%	97	93	123	36	32	48	93	214	266	264	153	146
Long Term												
Full Simulation Period[a]	312	268	278	198	235	284	306	396	407	537	433	419
Water Year Types[b,c]												
Wet (32%)	441	365	386	416	511	591	521	620	487	624	552	617
Above Normal (16%)	392	326	297	149	208	329	328	383	413	668	607	557
Below Normal (13%)	298	271	245	117	112	116	242	317	390	625	479	366
Dry (24%)	230	210	237	81	76	76	170	284	405	473	304	274
Critical (15%)	97	92	121	51	44	69	106	184	243	232	157	133

Alternative 4 043019

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	471	383	439	682	705	711	583	689	488	682	616	468
20%	394	336	352	294	547	538	492	561	456	654	594	429
30%	342	313	281	210	297	389	445	480	442	639	559	396
40%	326	289	267	163	211	299	395	402	426	616	499	366
50%	306	263	244	116	139	198	327	326	410	563	449	326
60%	244	217	224	84	113	136	253	299	384	476	351	290
70%	197	181	181	62	77	99	133	259	364	426	290	247
80%	158	132	146	50	49	67	111	237	341	361	251	204
90%	109	99	104	35	38	51	99	202	286	263	176	136
Long Term												
Full Simulation Period[a]	284	255	272	221	265	304	332	399	399	508	418	314
Water Year Types[b,c]												
Wet (32%)	397	373	410	450	533	609	548	626	470	614	545	402
Above Normal (16%)	358	307	282	171	235	342	436	426	421	642	591	460
Below Normal (13%)	292	234	222	171	196	194	305	304	396	584	406	305
Dry (24%)	200	175	200	87	103	88	136	266	378	404	288	232
Critical (15%)	91	92	131	45	48	65	105	189	256	235	185	112

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-16	-10	-13	19	22	23	-17	-30	-49	-14	-3	-188
20%	-28	-8	-2	52	-5	-22	74	66	-14	-26	-11	-182
30%	-54	-10	-21	28	84	11	93	53	5	-19	-17	-181
40%	-42	-21	-10	21	46	26	60	6	-2	-33	-49	-158
50%	-32	-20	-19	15	18	65	45	-28	-6	-69	-57	-132
60%	-38	-37	-26	9	37	41	21	12	-17	-100	-66	-57
70%	-38	-27	-30	4	18	15	-42	-4	-4	-44	-22	-37
80%	-35	-24	-25	4	1	8	-10	0	-12	2	24	-30
90%	12	6	-19	0	6	4	6	-12	21	0	23	-10
Long Term												
Full Simulation Period[a]	-29	-14	-5	22	30	21	26	3	-8	-29	-14	-105
Water Year Types[b,c]												
Wet (32%)	-44	9	24	35	22	19	27	6	-17	-10	-7	-216
Above Normal (16%)	-34	-19	-15	22	27	13	109	42	8	-26	-16	-96
Below Normal (13%)	-6	-38	-23	54	84	78	63	-13	5	-42	-73	-60
Dry (24%)	-30	-35	-37	6	27	12	-34	-18	-27	-69	-16	-42
Critical (15%)	-6	0	10	-6	4	-4	-1	5	13	3	28	-22

a Based on the 82-year simulation period.

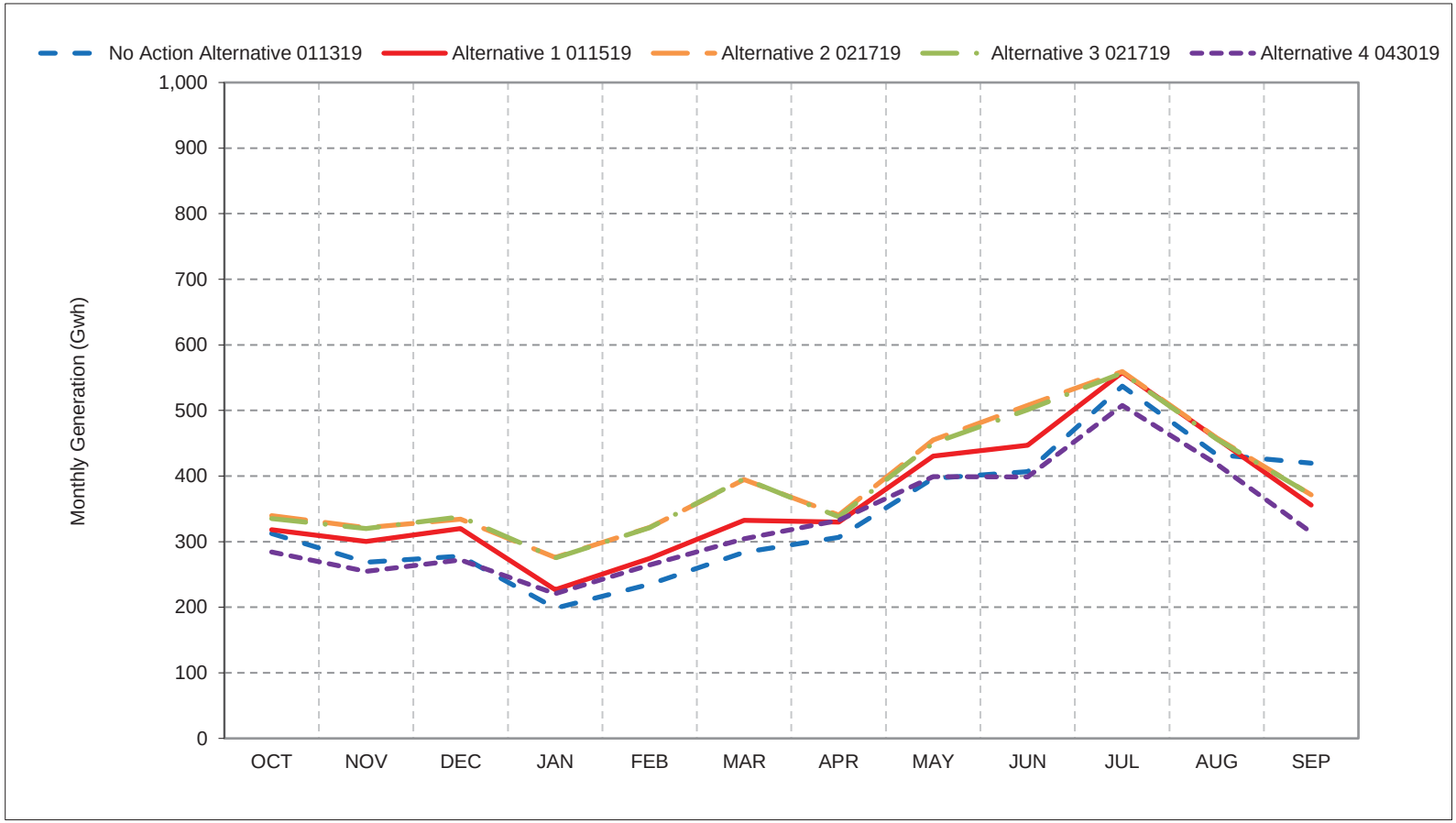
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

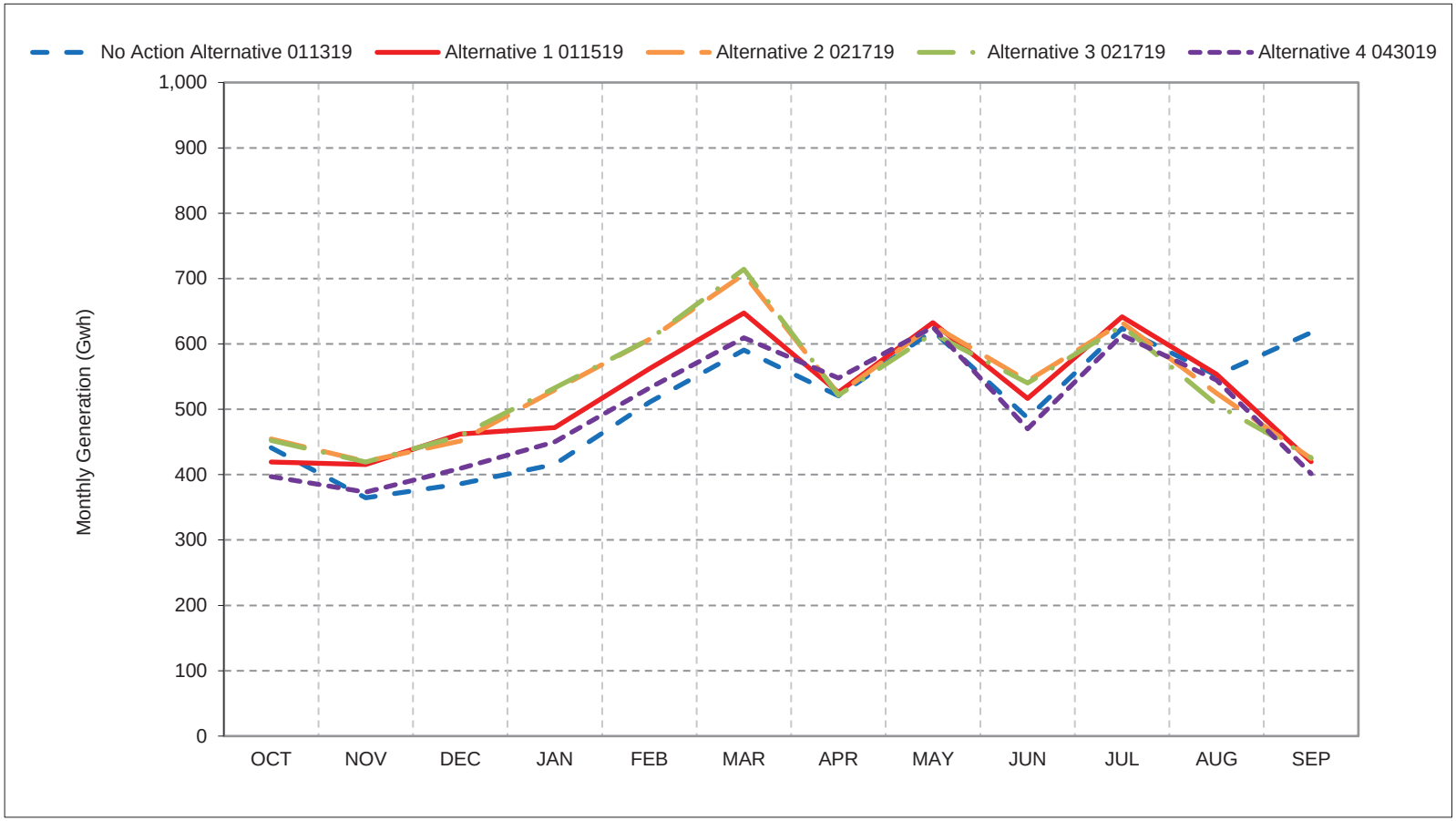
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-1. SWP Total Generation, Long-Term Average Generation



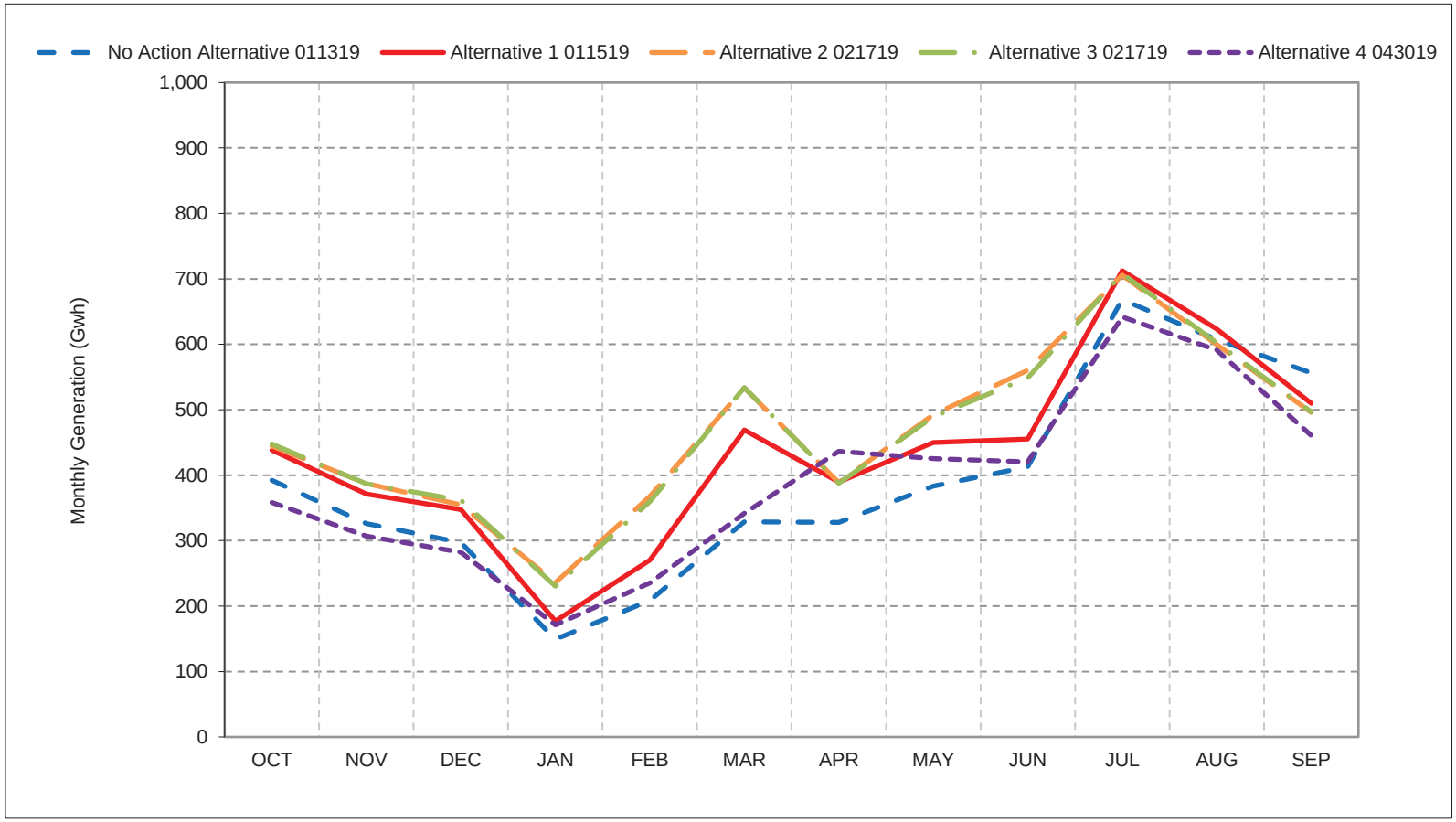
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-2. SWP Total Generation, Wet Year Average Generation



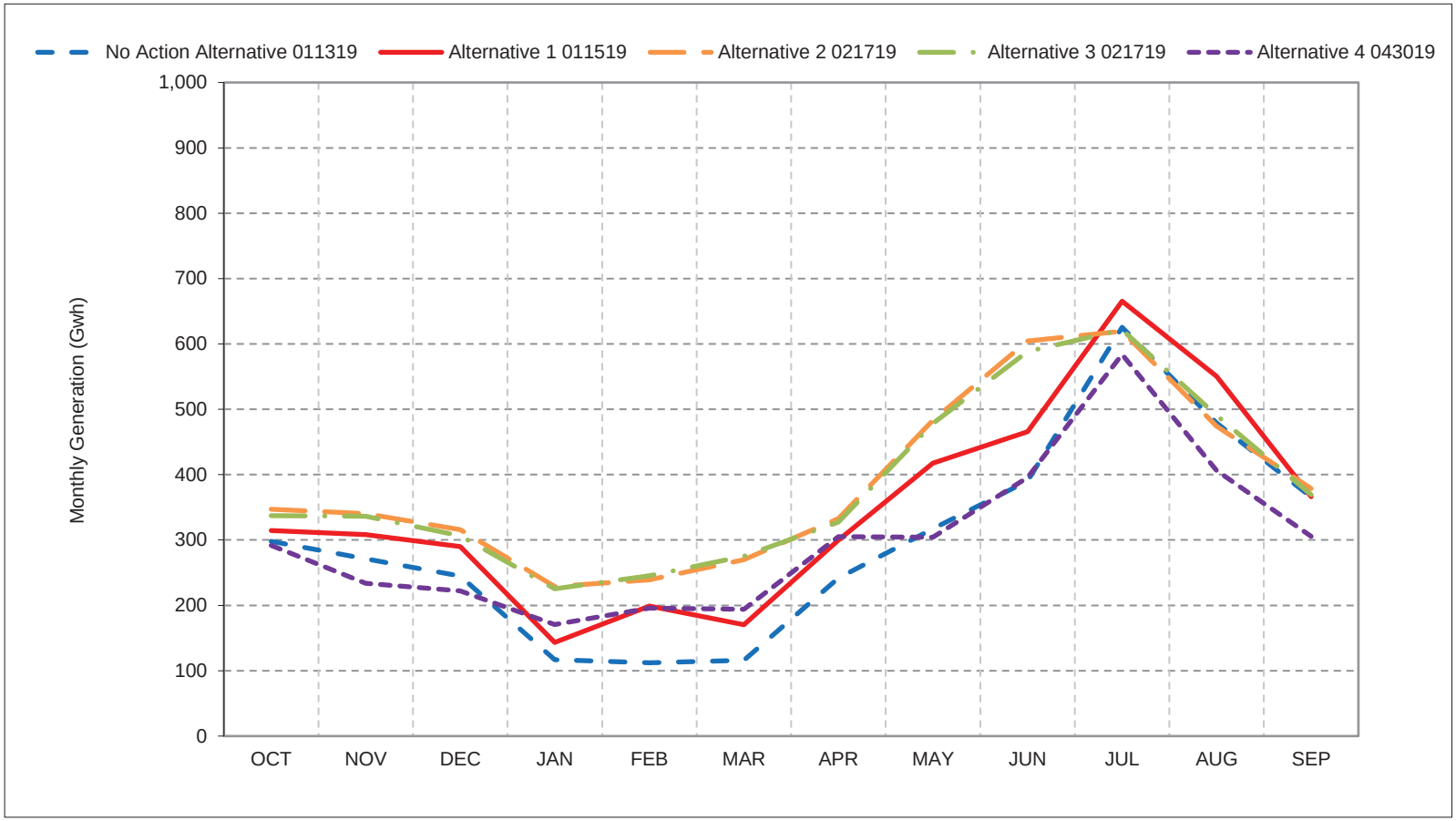
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-3. SWP Total Generation, Above Normal Year Average Generation



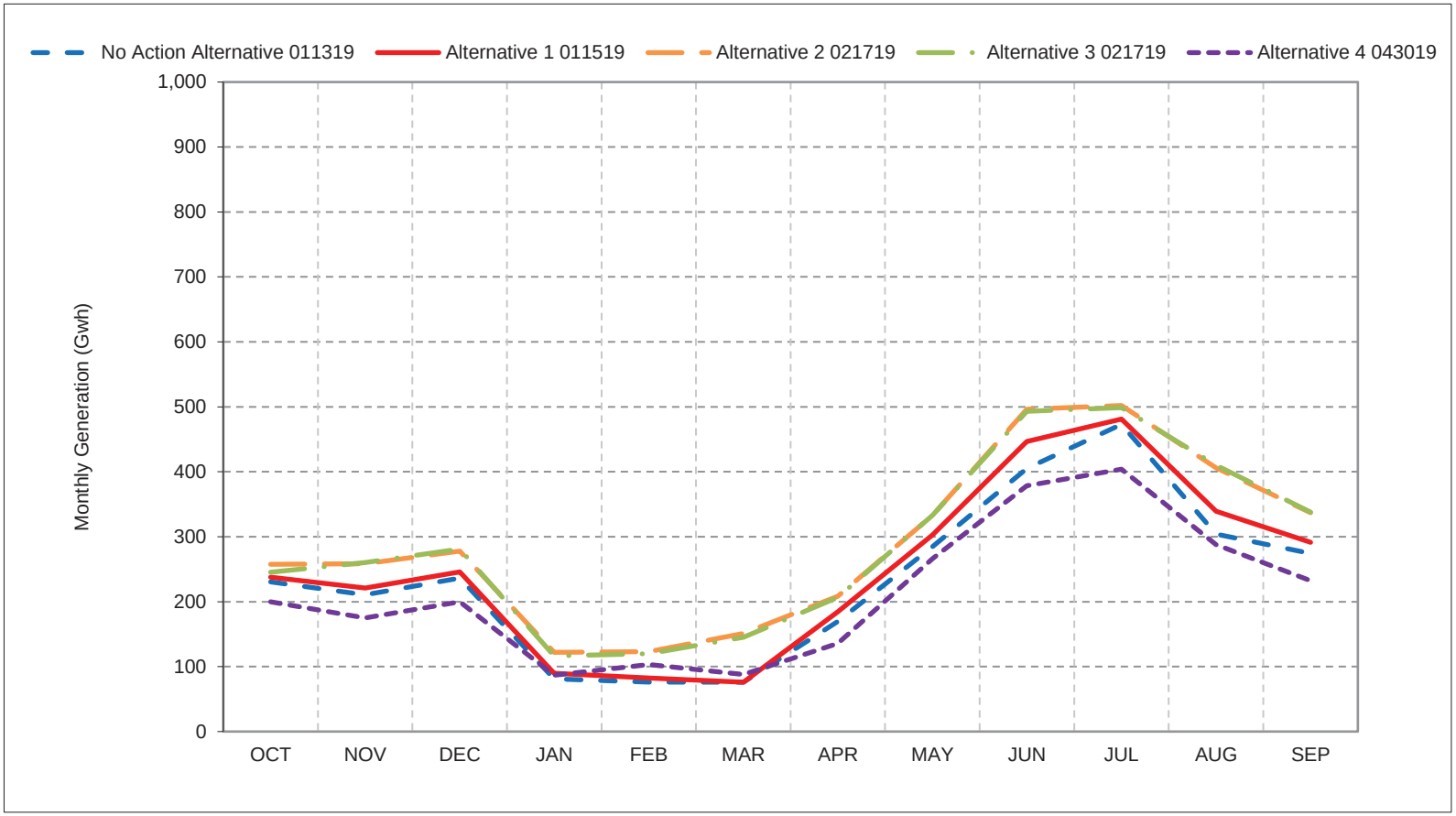
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-4. SWP Total Generation, Below Normal Year Average Generation



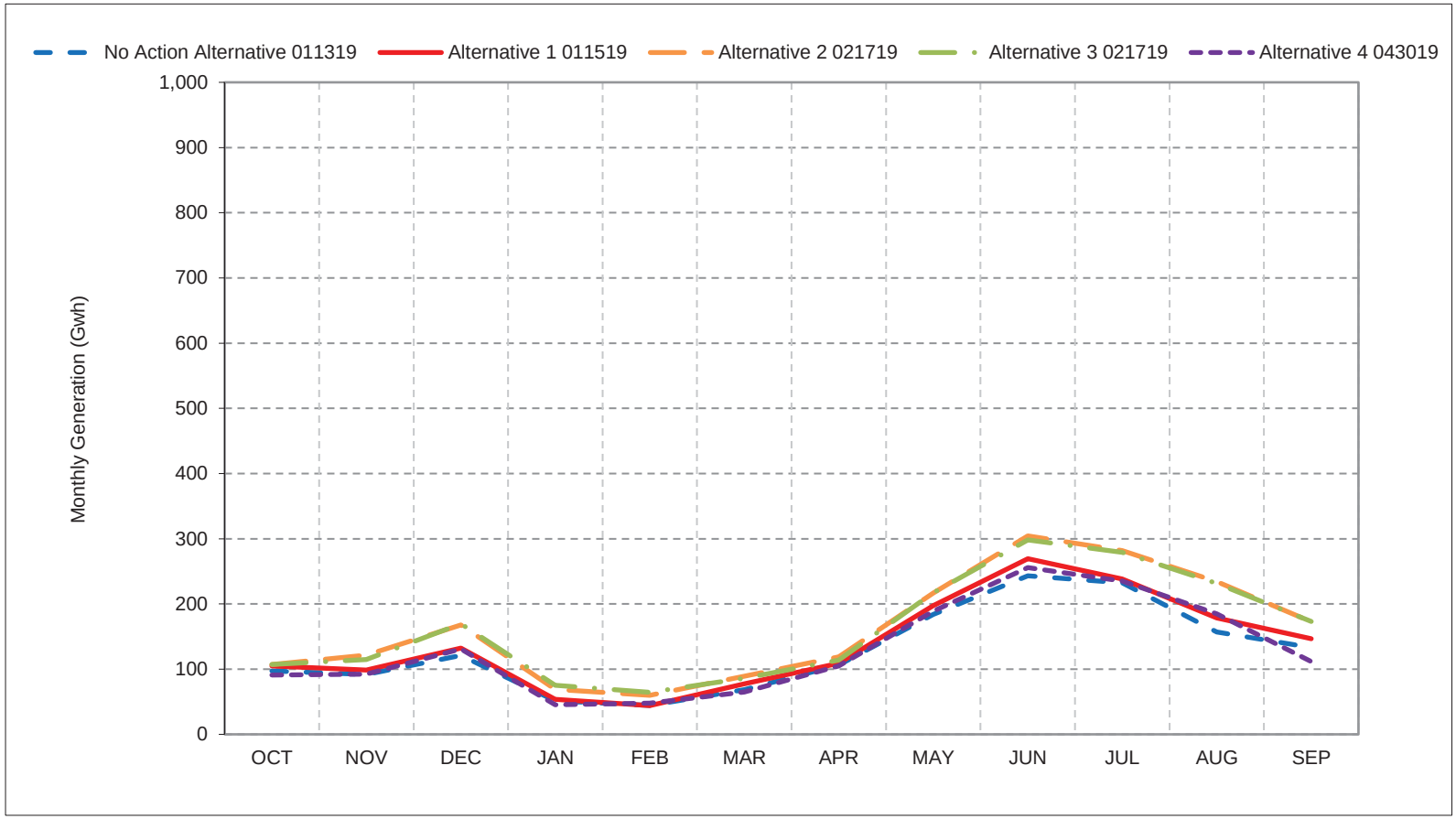
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-5. SWP Total Generation, Dry Year Average Generation



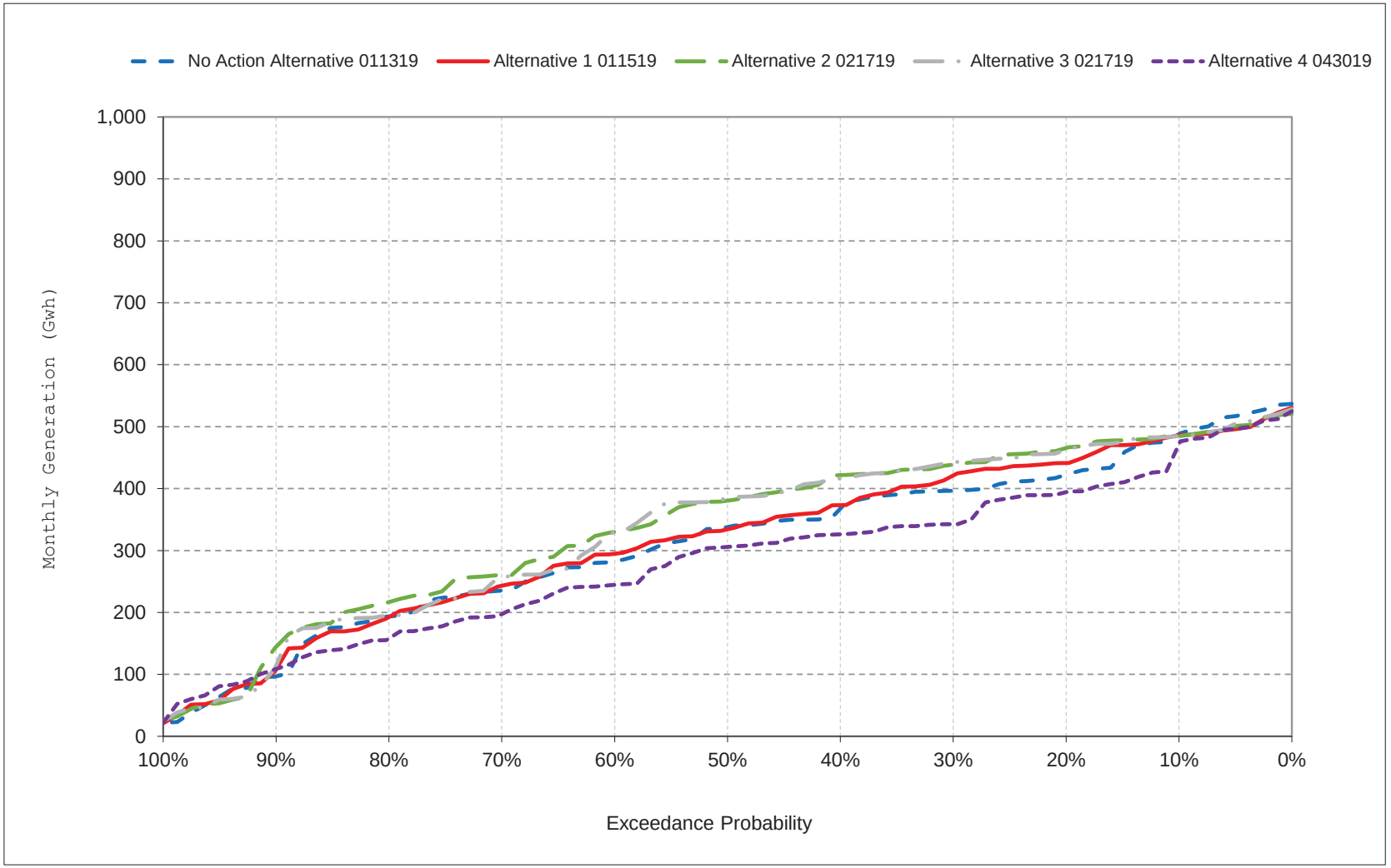
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-6. SWP Total Generation, Critical Year Average Generation



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

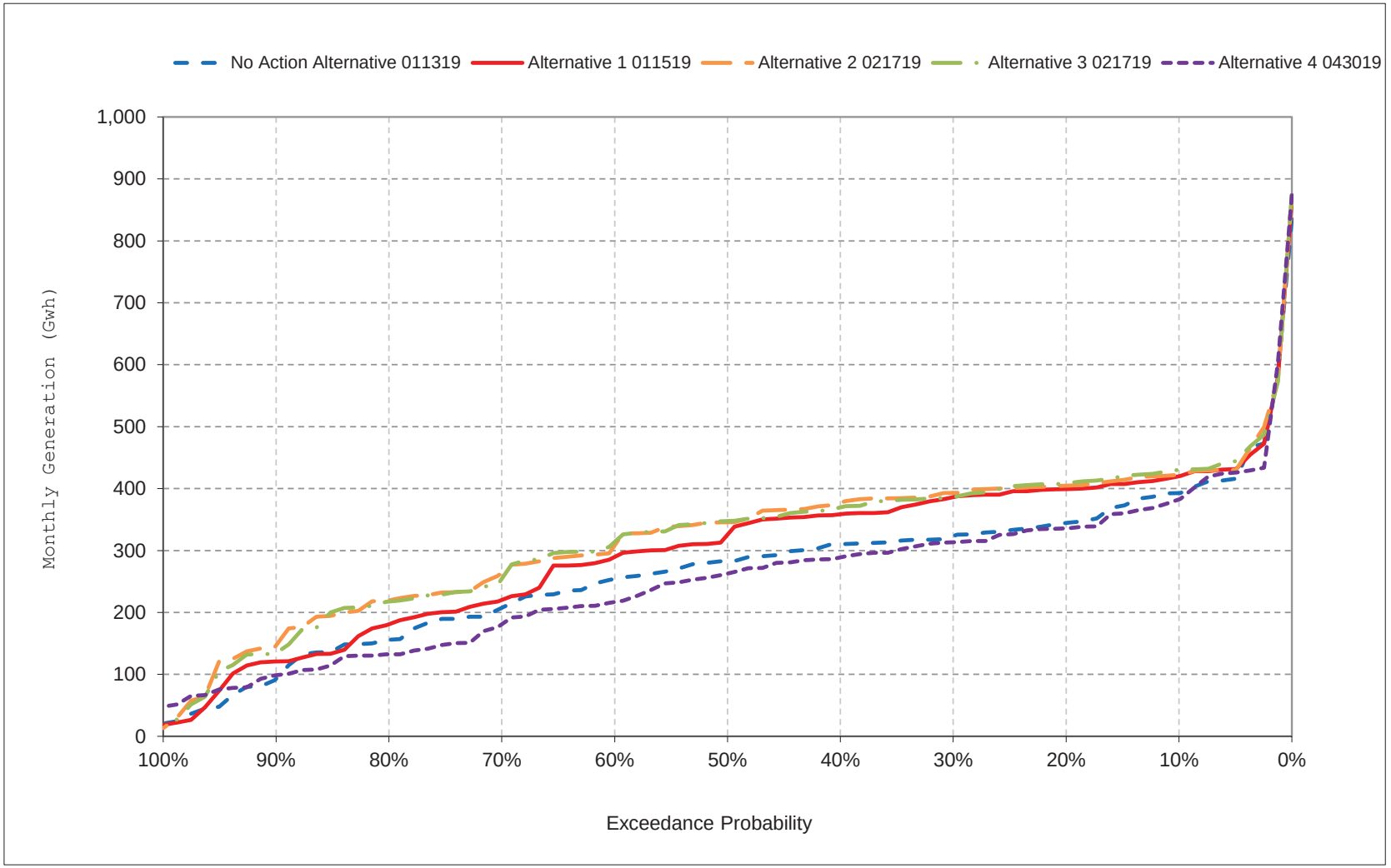
Figure 6-7. SWP Total Generation, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

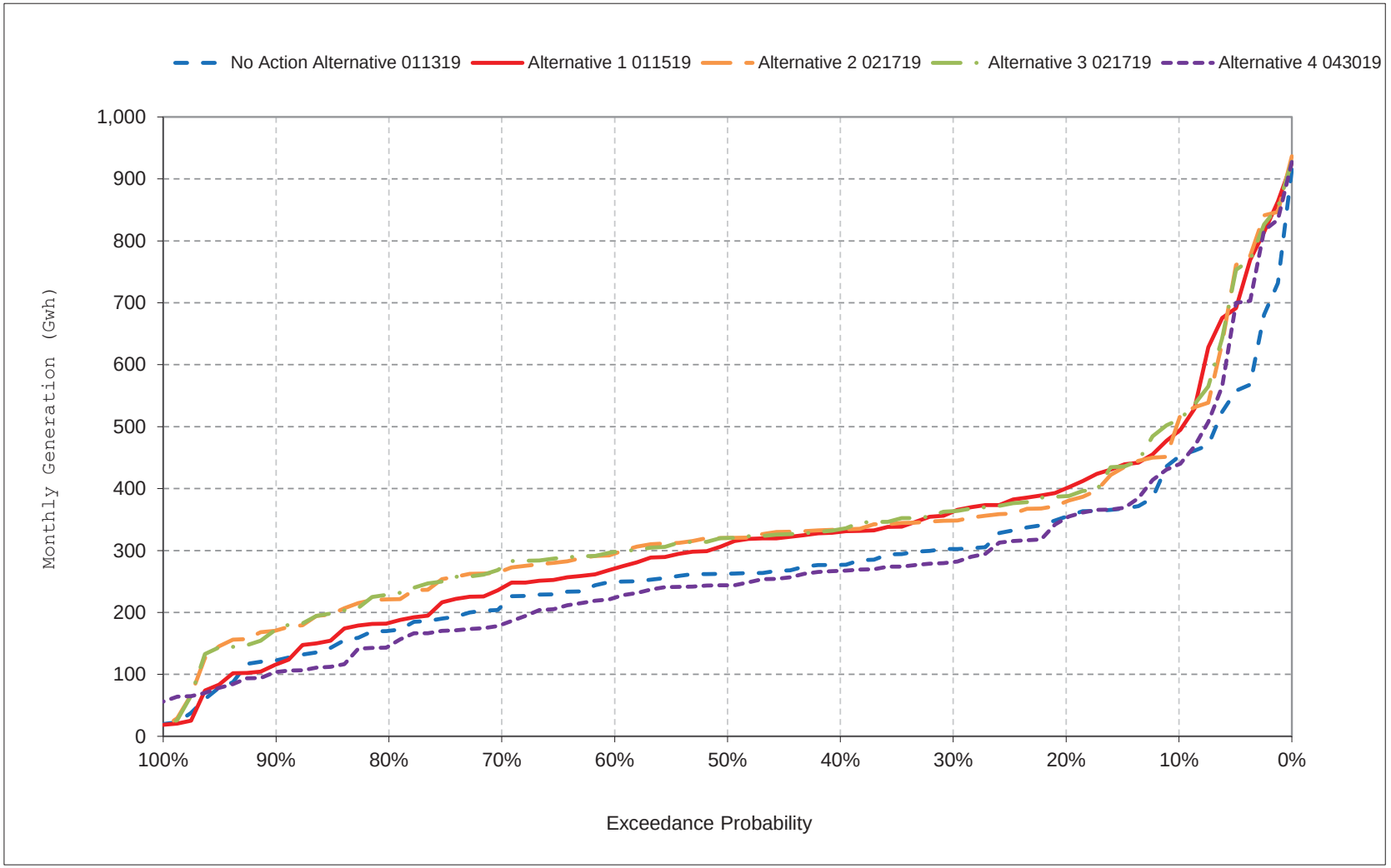
Figure 6-8. SWP Total Generation, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

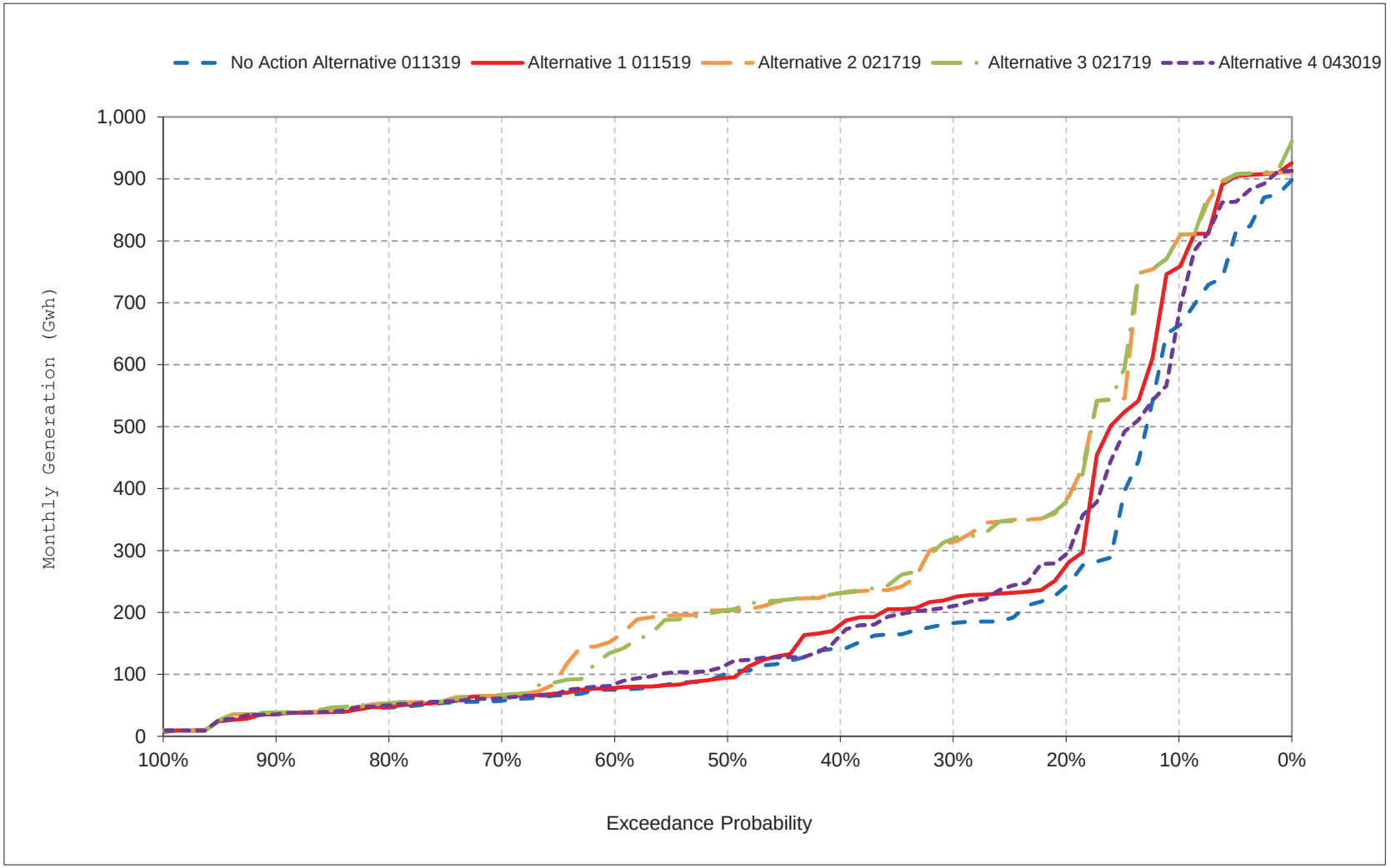
Figure 6-9. SWP Total Generation, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

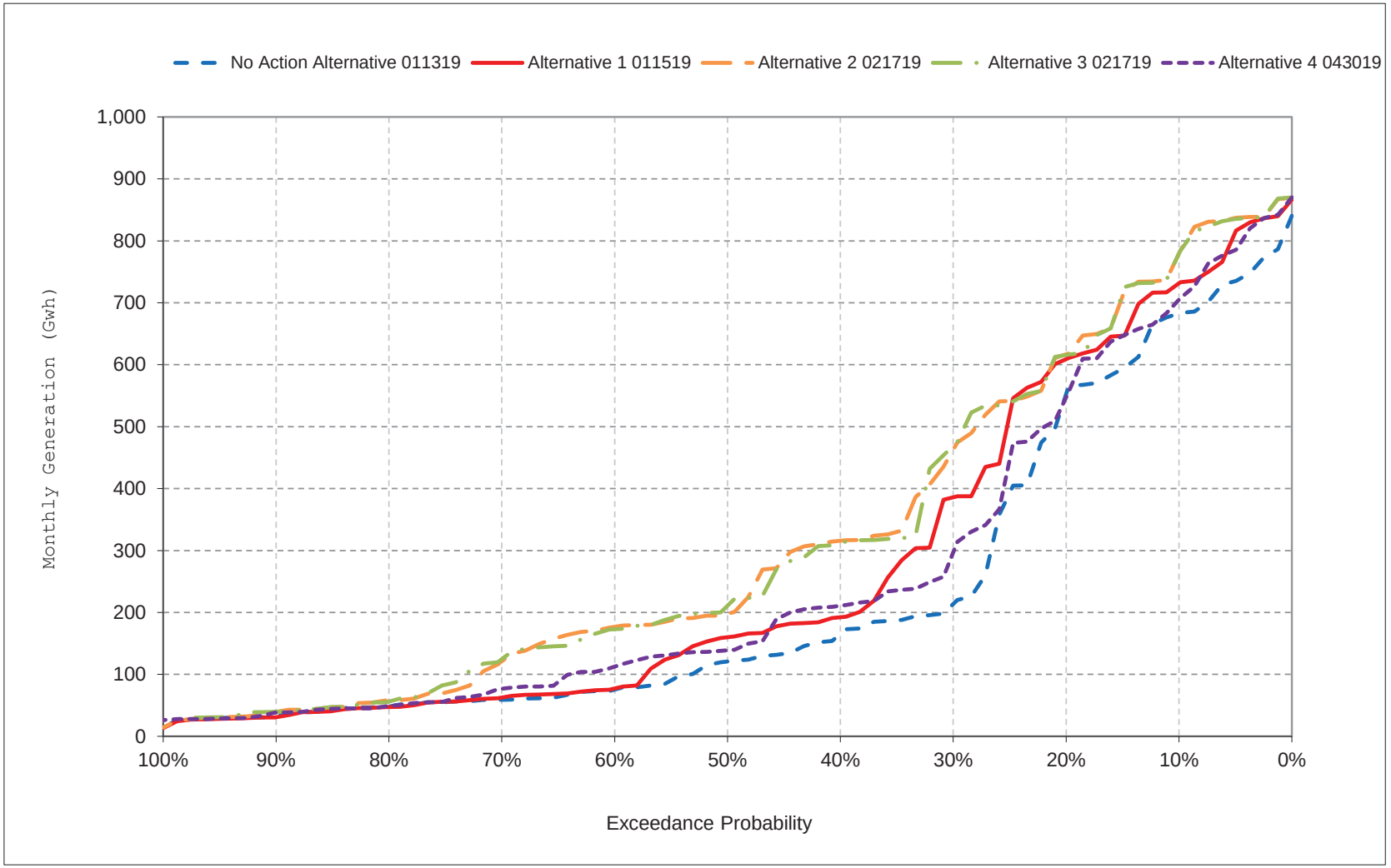
Figure 6-10. SWP Total Generation, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

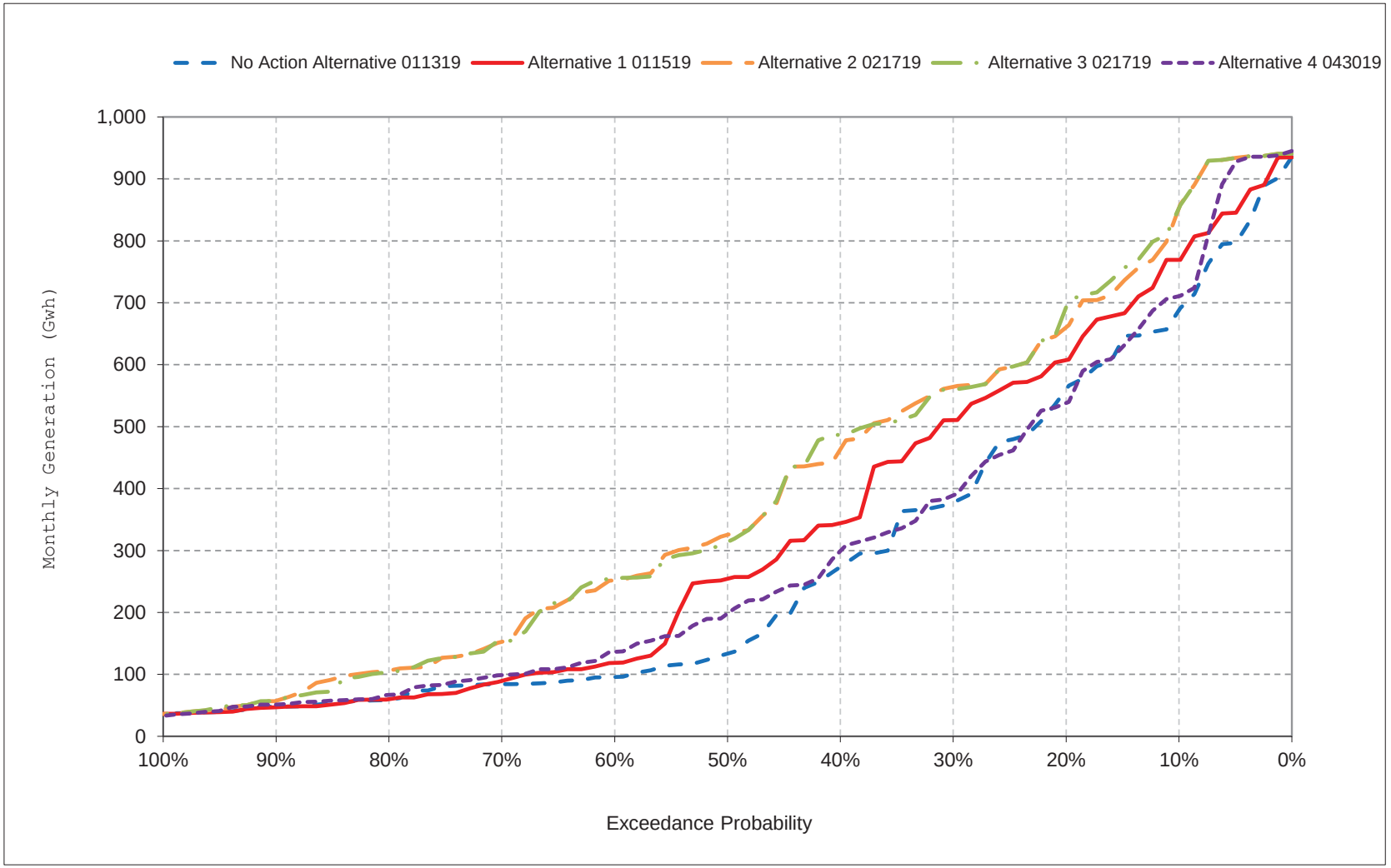
Figure 6-11. SWP Total Generation, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

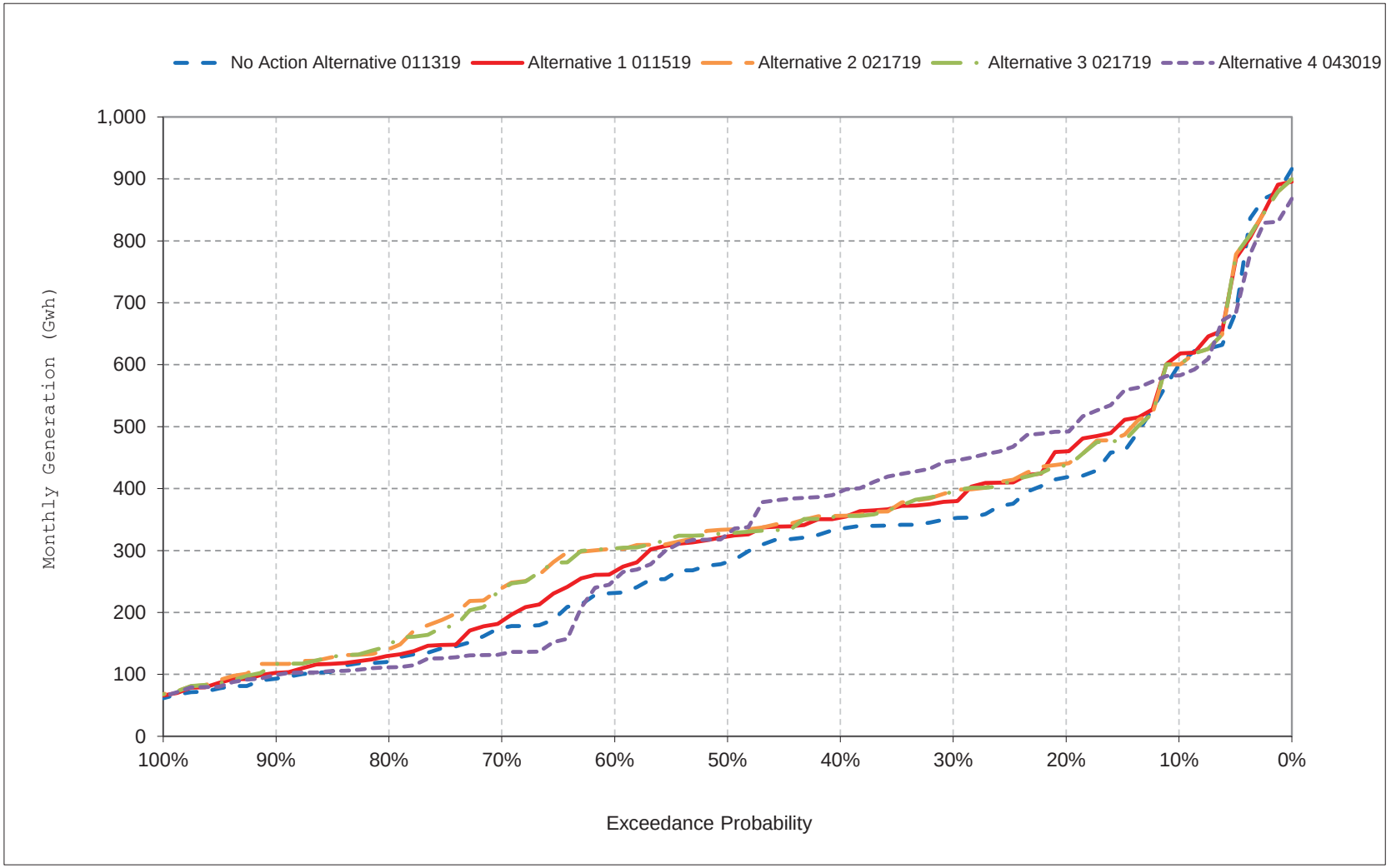
Figure 6-12. SWP Total Generation, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

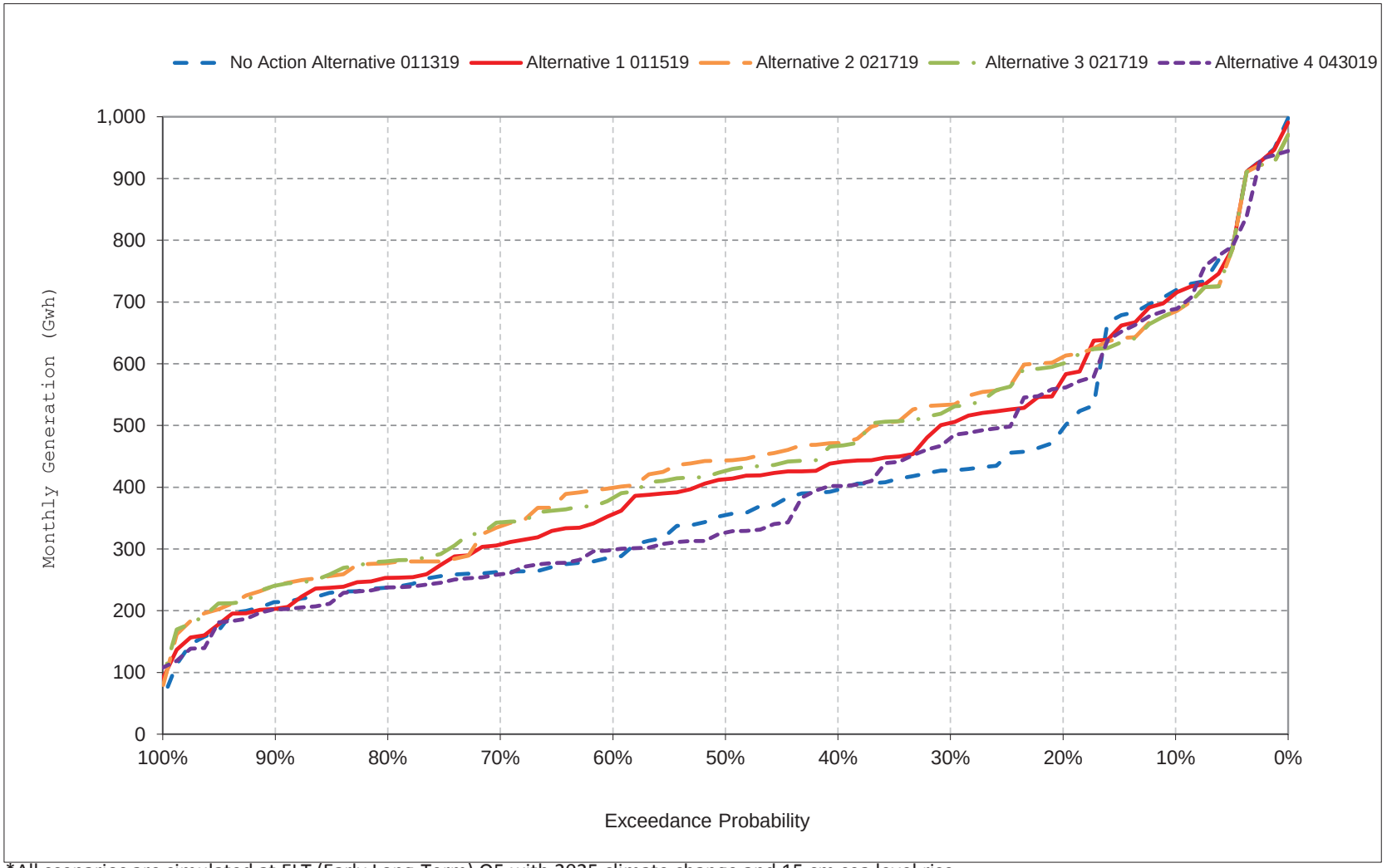
Figure 6-13. SWP Total Generation, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-14. SWP Total Generation, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

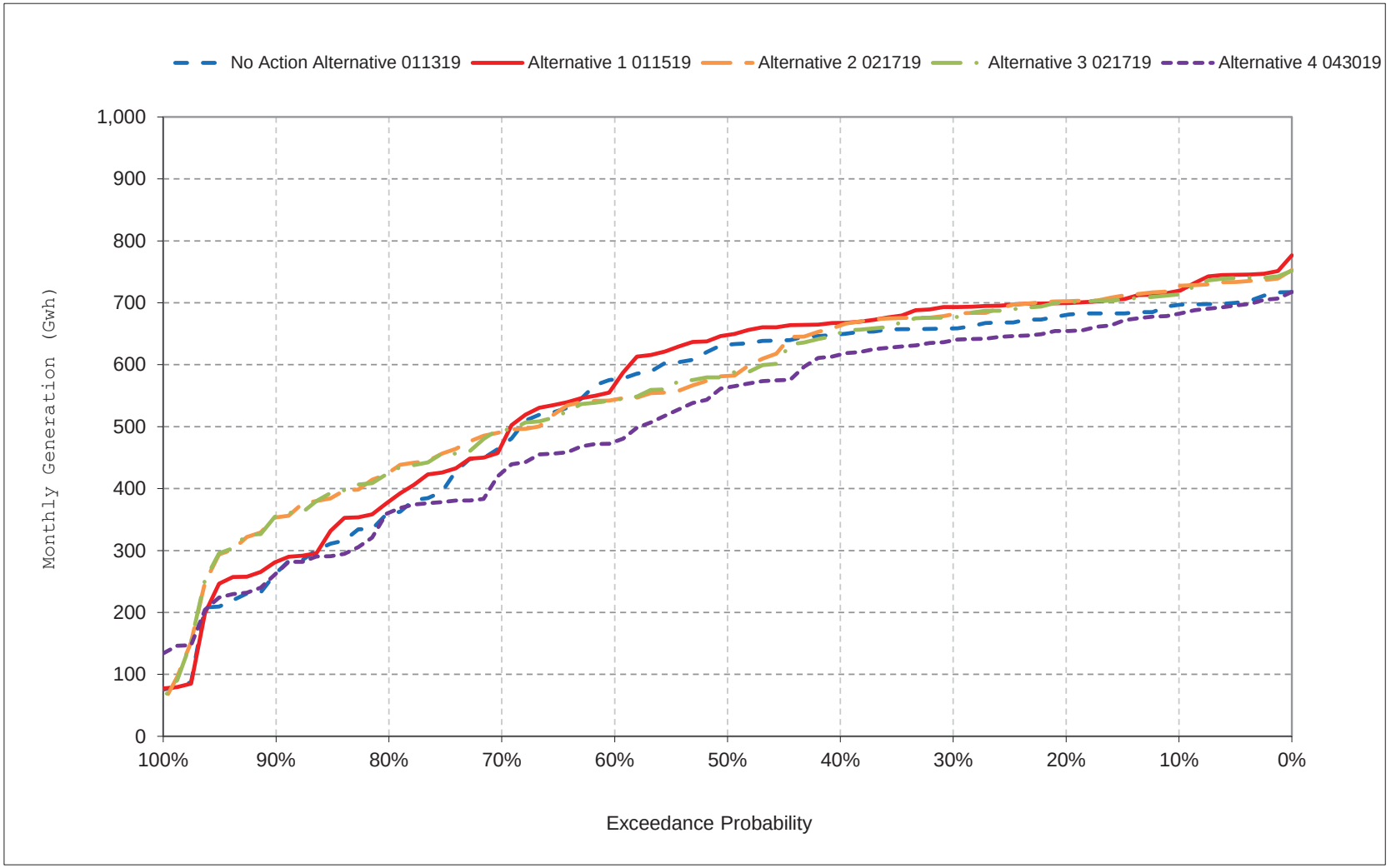
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-15. SWP Total Generation, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

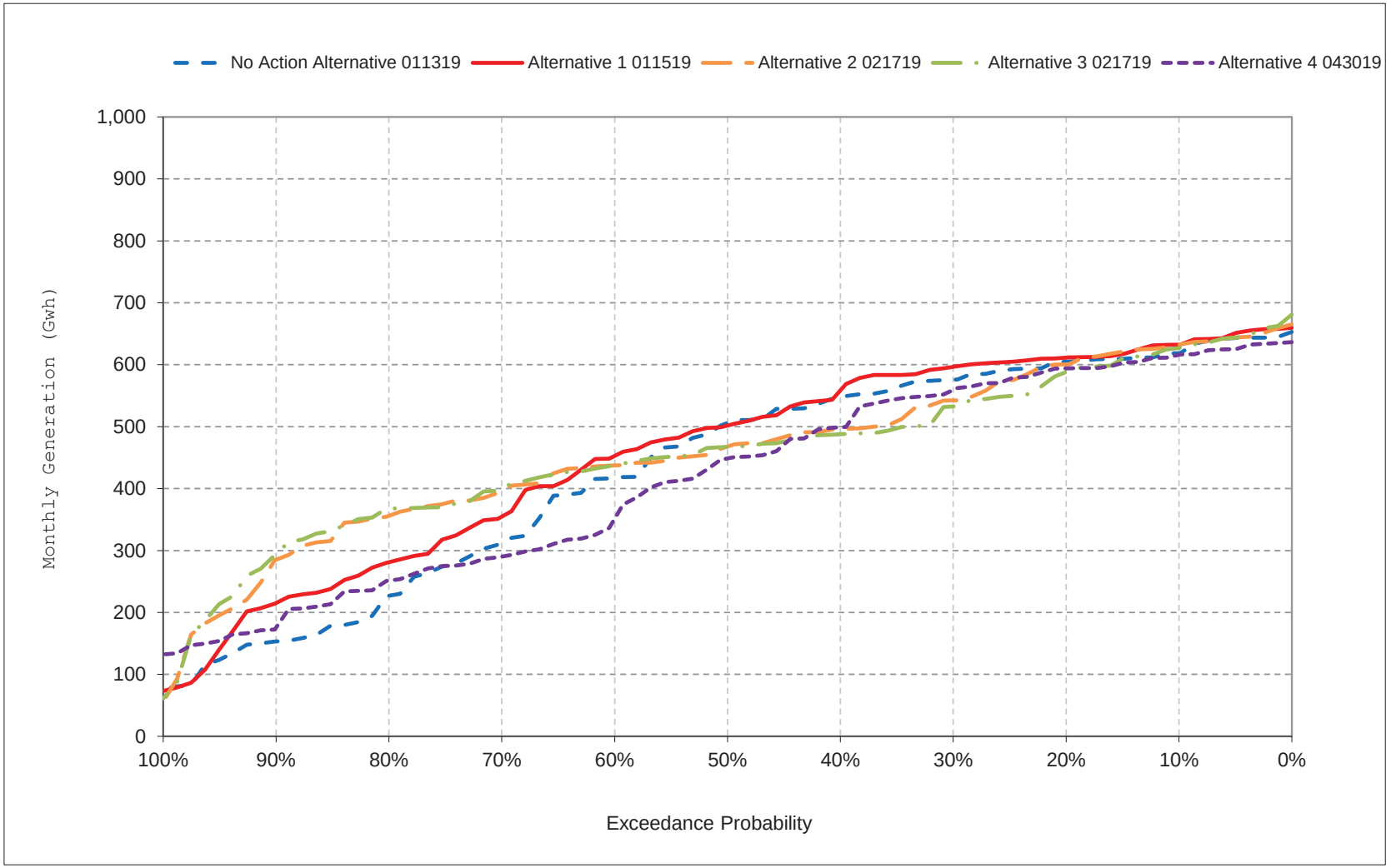
Figure 6-16. SWP Total Generation, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

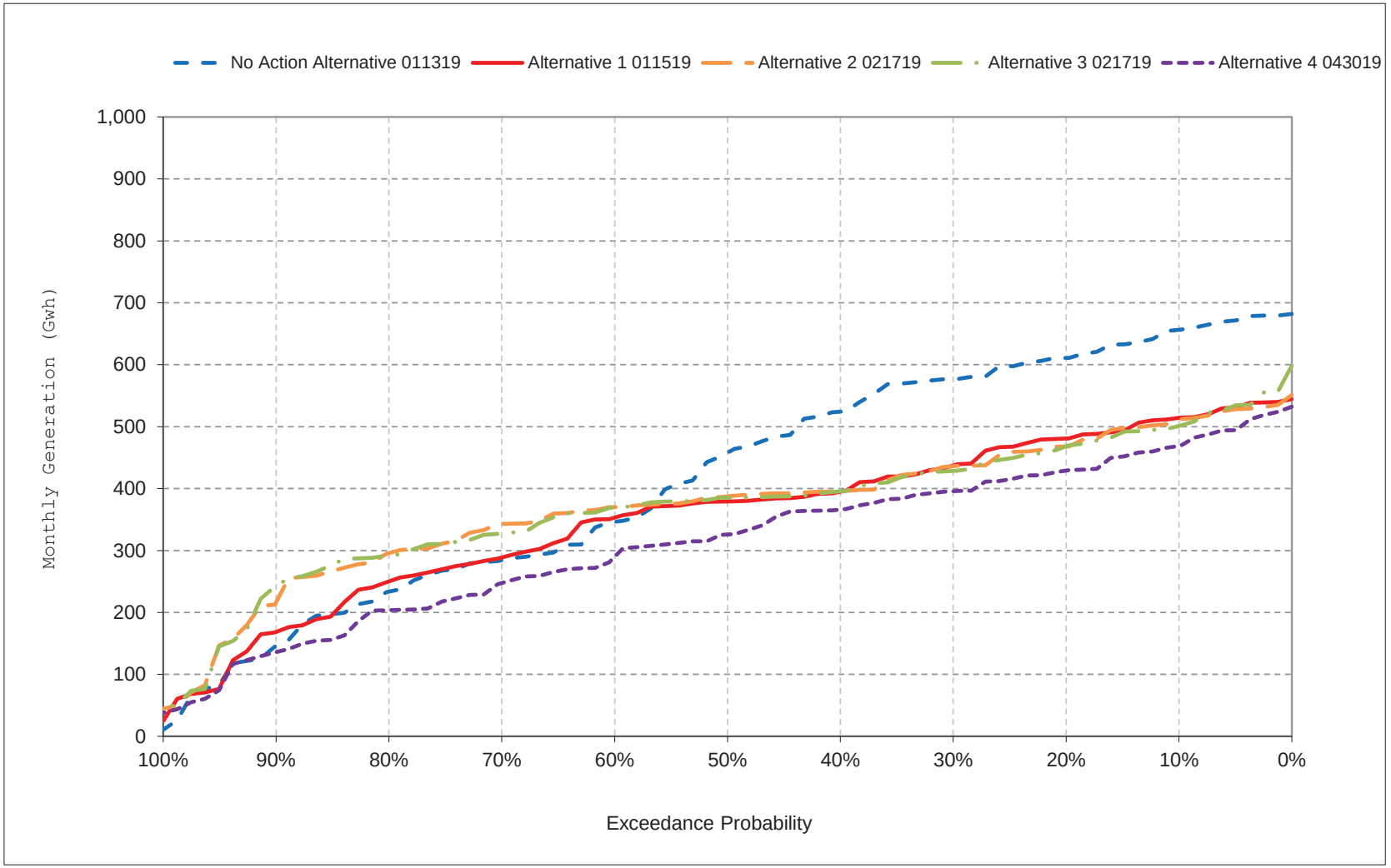
Figure 6-17. SWP Total Generation, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 6-18. SWP Total Generation, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 7-1. SWP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,034	947	1,044	664	803	1,019	818	1,009	985	1,120	1,124	1,112
20%	917	867	911	465	530	767	714	860	814	1,047	1,103	1,091
30%	862	775	807	373	455	596	657	782	760	1,013	1,077	1,056
40%	830	734	761	278	339	375	545	696	733	992	1,052	999
50%	777	687	722	153	248	254	417	477	716	966	1,033	952
60%	710	596	670	119	165	196	385	430	643	911	945	883
70%	570	539	551	109	124	166	194	401	553	783	667	721
80%	406	380	433	101	93	130	121	380	483	611	471	569
90%	263	221	276	86	65	108	105	281	352	389	235	379
Long Term												
Full Simulation Period[a]	696	635	683	301	334	424	453	593	666	846	833	841
Water Year Types[b,c]												
Wet (32%)	912	759	905	516	591	790	722	856	858	1,030	1,082	1,046
Above Normal (16%)	865	788	768	272	341	484	553	660	738	988	1,066	1,035
Below Normal (13%)	750	709	668	242	270	256	399	512	643	946	902	925
Dry (24%)	544	548	522	174	167	185	273	446	577	736	614	694
Critical (15%)	248	277	393	131	109	116	106	270	342	385	343	356

Alternative 1 011519

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,140	1,100	1,065	934	956	1,028	980	1,098	1,010	1,150	1,150	1,143
20%	1,099	1,067	1,008	556	754	961	924	1,062	954	1,135	1,127	1,133
30%	1,035	1,027	980	485	526	849	865	1,011	910	1,120	1,119	1,111
40%	959	961	932	389	452	711	837	962	827	1,105	1,105	1,092
50%	853	870	875	196	343	488	720	815	751	1,036	1,050	1,022
60%	733	763	706	131	222	290	547	588	689	958	1,013	896
70%	586	583	632	120	131	174	332	420	569	850	791	818
80%	400	451	447	111	118	157	162	395	548	619	599	634
90%	264	274	270	104	102	143	118	299	362	397	399	406
Long Term												
Full Simulation Period[a]	767	774	759	366	419	539	608	733	727	907	898	880
Water Year Types[b,c]												
Wet (32%)	990	1,022	985	617	722	892	893	996	895	1,091	1,107	1,088
Above Normal (16%)	1,027	983	898	367	452	784	848	913	815	1,098	1,116	1,120
Below Normal (13%)	834	832	795	326	370	414	637	789	783	1,029	1,058	929
Dry (24%)	570	580	549	198	200	214	357	505	623	766	697	726
Critical (15%)	267	281	436	136	134	166	124	299	389	423	398	380

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	106	153	21	270	153	9	162	89	25	30	26	31
20%	181	200	97	91	224	194	210	203	140	88	25	42
30%	173	251	172	111	72	252	209	228	150	107	42	55
40%	130	227	172	111	113	336	292	266	94	113	53	93
50%	76	183	154	42	95	234	303	337	35	70	17	71
60%	23	167	37	12	58	93	162	158	46	47	69	13
70%	16	44	81	11	7	8	138	19	16	67	124	98
80%	-6	71	14	10	25	27	41	15	65	8	127	65
90%	2	53	-6	18	38	35	13	18	9	8	164	27
Long Term												
Full Simulation Period[a]	71	139	76	65	85	115	156	140	60	61	65	39
Water Year Types[b,c]												
Wet (32%)	78	263	80	101	132	103	171	140	36	61	25	42
Above Normal (16%)	162	195	130	96	111	299	295	252	77	110	50	85
Below Normal (13%)	84	123	126	85	100	157	237	277	139	84	156	5
Dry (24%)	26	32	28	25	33	28	84	60	46	30	83	32
Critical (15%)	19	4	42	6	25	50	18	29	46	37	55	25

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 7-2. SWP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,034	947	1,044	664	803	1,019	818	1,009	985	1,120	1,124	1,112
20%	917	867	911	465	530	767	714	860	814	1,047	1,103	1,091
30%	862	775	807	373	455	596	657	782	760	1,013	1,077	1,056
40%	830	734	761	278	339	375	545	696	733	992	1,052	999
50%	777	687	722	153	248	254	417	477	716	966	1,033	952
60%	710	596	670	119	165	196	385	430	643	911	945	883
70%	570	539	551	109	124	166	194	401	553	783	667	721
80%	406	380	433	101	93	130	121	380	483	611	471	569
90%	263	221	276	86	65	108	105	281	352	389	235	379
Long Term												
Full Simulation Period[a]	696	635	683	301	334	424	453	593	666	846	833	841
Water Year Types[b,c]												
Wet (32%)	912	759	905	516	591	790	722	856	858	1,030	1,082	1,046
Above Normal (16%)	865	788	768	272	341	484	553	660	738	988	1,066	1,035
Below Normal (13%)	750	709	668	242	270	256	399	512	643	946	902	925
Dry (24%)	544	548	522	174	167	185	273	446	577	736	614	694
Critical (15%)	248	277	393	131	109	116	106	270	342	385	343	356

Alternative 2 021719

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,137	1,108	1,098	1,073	1,009	1,104	972	1,096	1,048	1,152	1,147	1,141
20%	1,106	1,078	1,041	1,025	974	1,102	950	1,073	1,028	1,143	1,138	1,125
30%	1,079	1,058	1,013	826	941	1,097	923	1,045	982	1,125	1,123	1,116
40%	1,049	1,028	976	675	869	1,024	861	988	959	1,105	1,077	1,083
50%	978	967	928	594	615	880	807	924	872	1,053	1,024	1,029
60%	855	877	890	410	510	759	689	813	808	965	985	998
70%	628	736	828	290	357	473	458	533	744	916	913	864
80%	496	516	722	262	277	293	265	412	576	757	792	788
90%	334	433	478	166	133	174	177	390	539	597	602	499
Long Term												
Full Simulation Period[a]	819	845	865	596	625	746	666	799	828	953	952	936
Water Year Types[b,c]												
Wet (32%)	1,071	1,036	1,001	865	912	1,070	906	1,012	963	1,090	1,094	1,091
Above Normal (16%)	1,071	1,042	999	678	826	1,040	916	1,042	990	1,124	1,118	1,113
Below Normal (13%)	893	928	938	681	569	733	756	915	925	1,050	983	998
Dry (24%)	613	709	729	365	403	465	443	578	714	868	882	871
Critical (15%)	274	369	583	232	211	203	162	340	459	527	556	460

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	103	161	54	409	206	85	154	87	63	32	22	29
20%	189	211	131	560	444	335	236	213	214	96	36	34
30%	217	283	205	453	487	500	267	262	222	112	47	60
40%	219	294	216	397	530	649	316	293	226	113	25	84
50%	201	280	206	440	367	626	389	446	156	87	-9	77
60%	146	281	220	291	345	563	305	383	165	54	40	114
70%	58	198	277	182	233	308	263	132	190	134	246	143
80%	89	136	289	161	183	163	144	33	93	146	321	218
90%	71	212	202	79	68	66	72	109	187	208	367	120
Long Term												
Full Simulation Period[a]	123	210	182	296	291	322	213	206	161	107	119	95
Water Year Types[b,c]												
Wet (32%)	159	277	96	349	321	281	183	156	104	60	11	45
Above Normal (16%)	205	255	231	407	485	556	363	381	252	136	52	78
Below Normal (13%)	144	220	269	440	300	477	357	403	282	104	81	74
Dry (24%)	69	161	208	191	236	280	169	132	137	132	268	177
Critical (15%)	25	92	190	101	102	87	56	70	116	142	213	104

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 7-3. SWP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,034	947	1,044	664	803	1,019	818	1,009	985	1,120	1,124	1,112
20%	917	867	911	465	530	767	714	860	814	1,047	1,103	1,091
30%	862	775	807	373	455	596	657	782	760	1,013	1,077	1,056
40%	830	734	761	278	339	375	545	696	733	992	1,052	999
50%	777	687	722	153	248	254	417	477	716	966	1,033	952
60%	710	596	670	119	165	196	385	430	643	911	945	883
70%	570	539	551	109	124	166	194	401	553	783	667	721
80%	406	380	433	101	93	130	121	380	483	611	471	569
90%	263	221	276	86	65	108	105	281	352	389	235	379
Long Term												
Full Simulation Period[a]	696	635	683	301	334	424	453	593	666	846	833	841
Water Year Types[b,c]												
Wet (32%)	912	759	905	516	591	790	722	856	858	1,030	1,082	1,046
Above Normal (16%)	865	788	768	272	341	484	553	660	738	988	1,066	1,035
Below Normal (13%)	750	709	668	242	270	256	399	512	643	946	902	925
Dry (24%)	544	548	522	174	167	185	273	446	577	736	614	694
Critical (15%)	248	277	393	131	109	116	106	270	342	385	343	356

Alternative 3 021719

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,135	1,120	1,140	1,085	1,004	1,104	975	1,096	1,041	1,149	1,146	1,141
20%	1,116	1,075	1,061	1,019	974	1,102	946	1,068	1,020	1,143	1,139	1,125
30%	1,074	1,057	1,025	826	935	1,090	911	1,046	983	1,125	1,121	1,111
40%	1,009	1,025	984	685	781	1,029	844	964	939	1,087	1,046	1,052
50%	943	965	936	533	604	906	788	897	868	1,012	1,022	1,023
60%	854	883	877	375	487	714	682	823	806	958	983	986
70%	559	723	826	288	353	473	448	542	724	894	926	870
80%	400	520	694	262	281	269	250	424	582	757	794	773
90%	234	414	466	169	144	153	175	388	545	598	624	563
Long Term												
Full Simulation Period[a]	796	839	871	588	620	744	656	793	818	946	951	932
Water Year Types[b,c]												
Wet (32%)	1,064	1,032	1,018	854	917	1,072	890	1,002	952	1,079	1,078	1,079
Above Normal (16%)	1,071	1,042	998	674	786	1,044	913	1,040	981	1,119	1,118	1,108
Below Normal (13%)	862	915	924	669	563	749	743	908	908	1,040	1,027	987
Dry (24%)	553	714	739	351	396	451	440	569	708	865	882	875
Critical (15%)	265	342	590	240	226	195	152	341	454	514	543	463

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	101	174	96	422	201	85	157	87	56	29	22	29
20%	199	208	150	554	444	335	232	208	207	97	36	34
30%	212	281	218	453	480	494	254	264	223	112	44	55
40%	179	291	223	407	443	654	298	268	206	95	-6	53
50%	166	278	215	379	357	652	371	420	152	45	-11	71
60%	144	287	208	256	323	517	298	393	163	47	38	103
70%	-11	184	275	180	229	307	254	141	170	112	259	149
80%	-6	140	262	160	188	139	128	44	99	145	323	204
90%	-29	193	190	83	79	45	70	107	192	209	389	184
Long Term												
Full Simulation Period[a]	100	205	188	288	286	321	204	200	152	100	118	90
Water Year Types[b,c]												
Wet (32%)	151	274	113	338	327	283	168	146	94	50	-4	33
Above Normal (16%)	206	255	230	402	445	559	360	380	243	131	52	73
Below Normal (13%)	113	206	256	428	293	493	344	396	264	95	126	62
Dry (24%)	8	166	217	177	229	265	167	124	131	130	268	181
Critical (15%)	16	65	197	109	117	79	46	71	111	129	200	108

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 7-4. SWP Total Energy Use, Monthly Energy Use

No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,034	947	1,044	664	803	1,019	818	1,009	985	1,120	1,124	1,112
20%	917	867	911	465	530	767	714	860	814	1,047	1,103	1,091
30%	862	775	807	373	455	596	657	782	760	1,013	1,077	1,056
40%	830	734	761	278	339	375	545	696	733	992	1,052	999
50%	777	687	722	153	248	254	417	477	716	966	1,033	952
60%	710	596	670	119	165	196	385	430	643	911	945	883
70%	570	539	551	109	124	166	194	401	553	783	667	721
80%	406	380	433	101	93	130	121	380	483	611	471	569
90%	263	221	276	86	65	108	105	281	352	389	235	379
Long Term												
Full Simulation Period[a]	696	635	683	301	334	424	453	593	666	846	833	841
Water Year Types[b,c]												
Wet (32%)	912	759	905	516	591	790	722	856	858	1,030	1,082	1,046
Above Normal (16%)	865	788	768	272	341	484	553	660	738	988	1,066	1,035
Below Normal (13%)	750	709	668	242	270	256	399	512	643	946	902	925
Dry (24%)	544	548	522	174	167	185	273	446	577	736	614	694
Critical (15%)	248	277	393	131	109	116	106	270	342	385	343	356

Alternative 4 043019

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1,104	972	968	899	942	994	781	958	930	1,067	1,124	1,113
20%	901	894	879	518	699	564	684	793	783	1,011	1,082	1,063
30%	857	800	733	412	505	445	590	715	726	973	1,056	1,016
40%	802	737	683	317	386	282	434	527	694	943	1,021	941
50%	753	659	629	224	322	192	405	434	646	909	958	886
60%	584	548	531	144	244	134	246	398	572	742	768	774
70%	442	427	451	115	183	95	120	391	551	631	601	615
80%	382	319	347	109	121	83	105	323	439	488	464	481
90%	244	281	281	100	103	79	95	258	356	392	369	338
Long Term												
Full Simulation Period[a]	673	625	615	348	401	349	399	546	634	791	811	781
Water Year Types[b,c]												
Wet (32%)	944	887	825	575	673	708	679	821	829	1,008	1,064	1,028
Above Normal (16%)	874	799	719	368	402	353	567	640	728	962	1,061	1,025
Below Normal (13%)	673	578	548	331	391	205	331	413	600	871	820	809
Dry (24%)	453	407	424	193	209	121	143	364	496	592	551	580
Critical (15%)	234	278	426	109	142	77	98	276	368	392	415	288

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Energy Use (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	70	25	-76	235	139	-24	-37	-51	-55	-53	-1	1
20%	-16	28	-32	53	169	-203	-30	-67	-31	-36	-21	-28
30%	-5	25	-75	39	51	-152	-67	-67	-34	-41	-21	-40
40%	-28	3	-78	40	48	-93	-111	-169	-39	-49	-31	-58
50%	-24	-28	-93	71	75	-63	-13	-43	-70	-58	-75	-66
60%	-125	-48	-138	26	79	-63	-139	-32	-72	-169	-177	-109
70%	-128	-111	-100	6	58	-71	-75	-10	-3	-152	-66	-106
80%	-24	-61	-86	8	28	-47	-17	-57	-44	-123	-7	-88
90%	-18	59	5	13	39	-29	-10	-23	4	3	134	-41
Long Term												
Full Simulation Period[a]	-23	-9	-68	47	67	-75	-54	-47	-33	-55	-22	-60
Water Year Types[b,c]												
Wet (32%)	31	128	-80	59	82	-82	-44	-35	-30	-22	-19	-18
Above Normal (16%)	9	12	-48	96	61	-132	14	-21	-9	-26	-5	-11
Below Normal (13%)	-76	-131	-120	89	122	-52	-68	-99	-44	-75	-82	-116
Dry (24%)	-91	-140	-97	19	42	-64	-131	-82	-81	-144	-63	-113
Critical (15%)	-14	1	33	-22	33	-38	-9	7	26	7	72	-68

a Based on the 82-year simulation period.

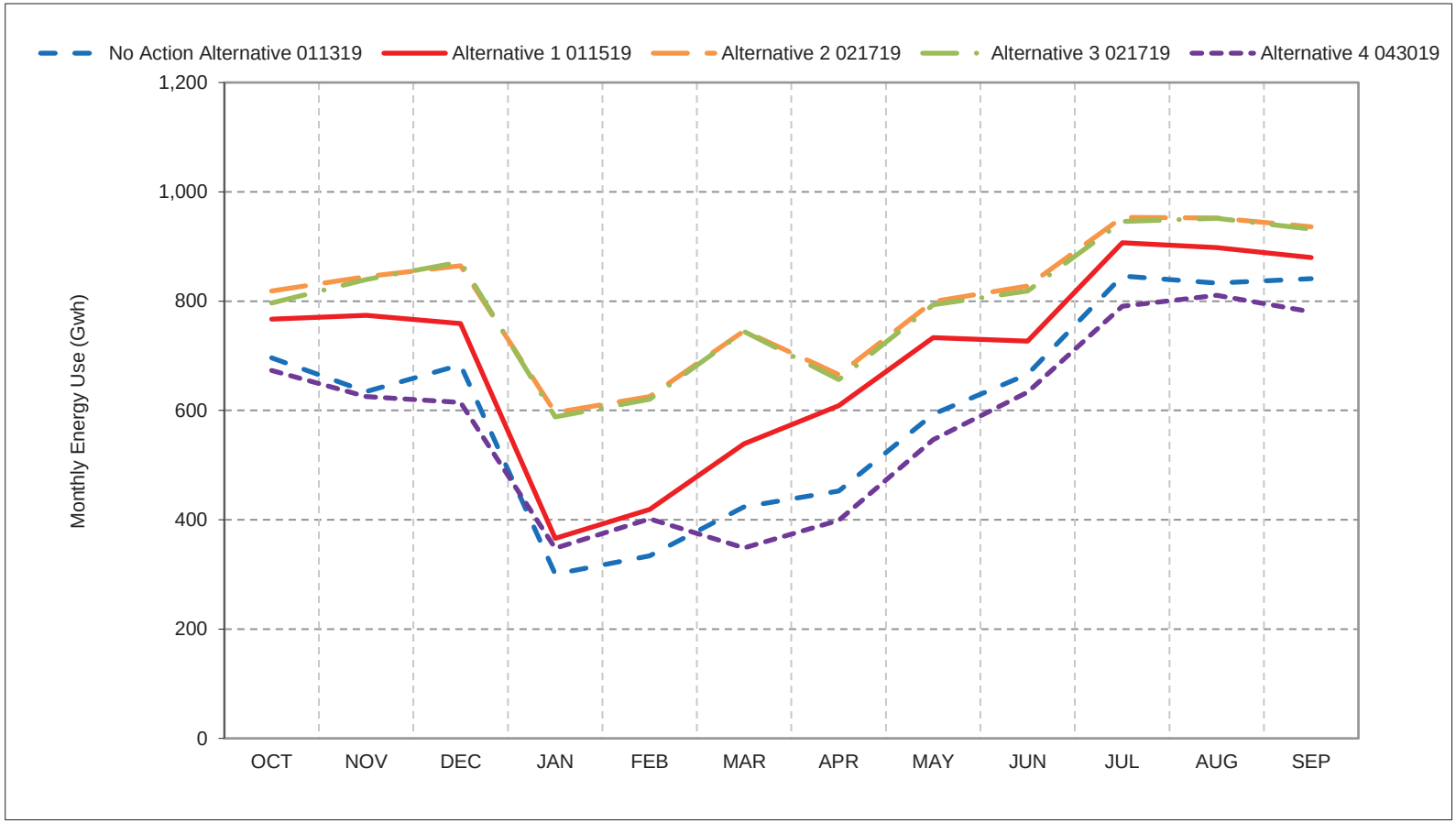
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

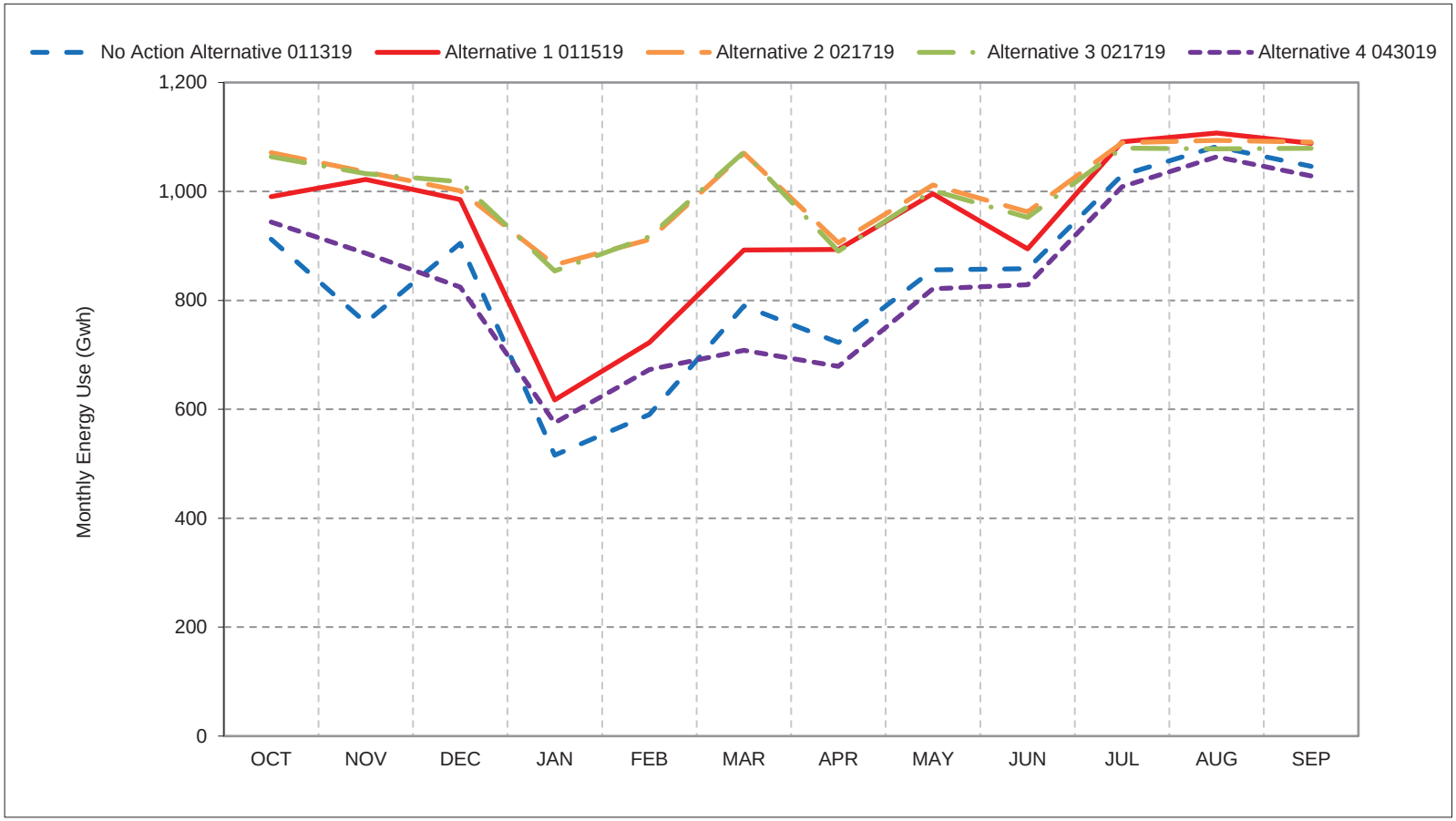
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-1. SWP Total Energy Use, Long-Term Average Energy Use



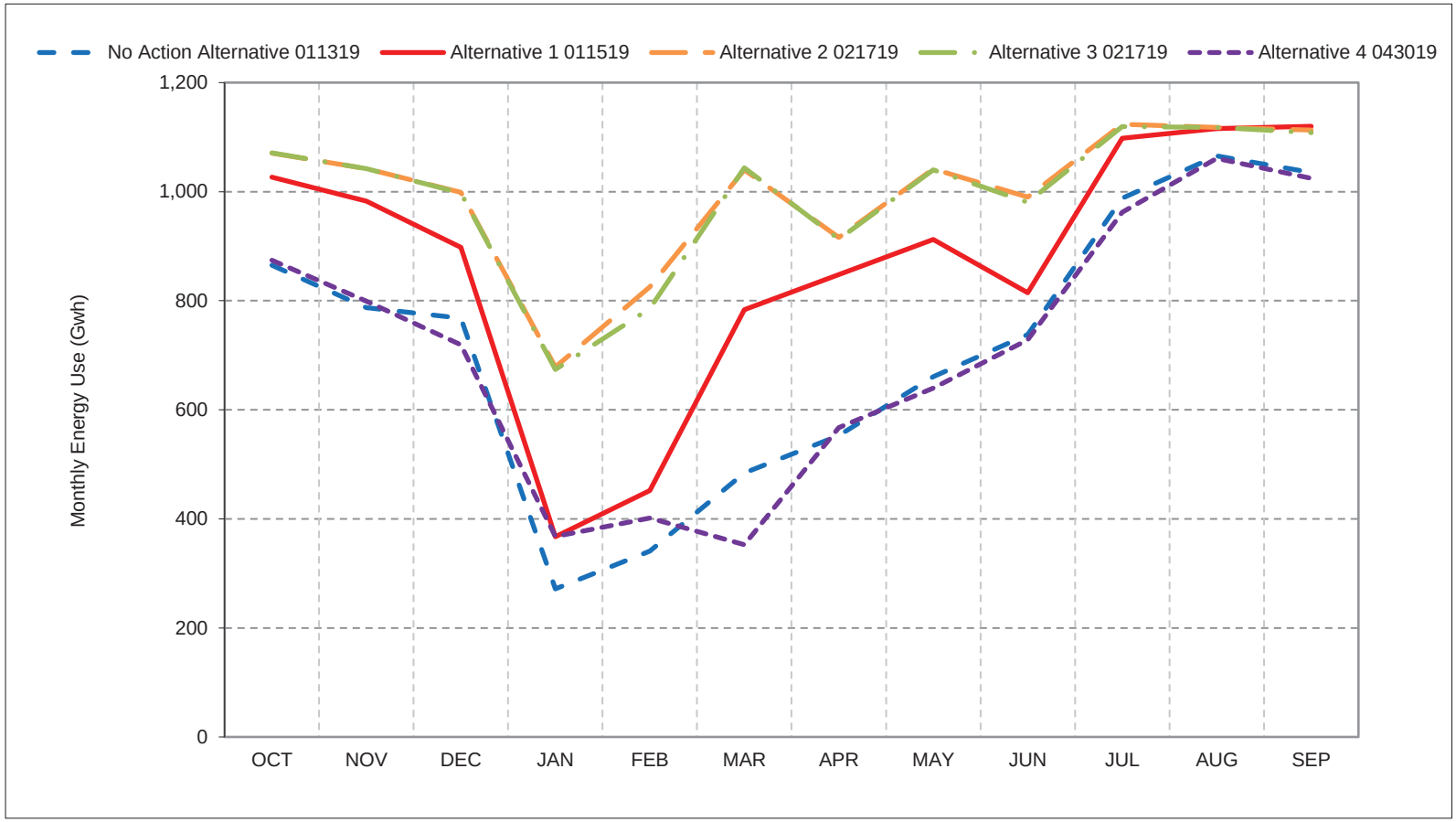
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-2. SWP Total Energy Use, Wet Year Average Energy Use



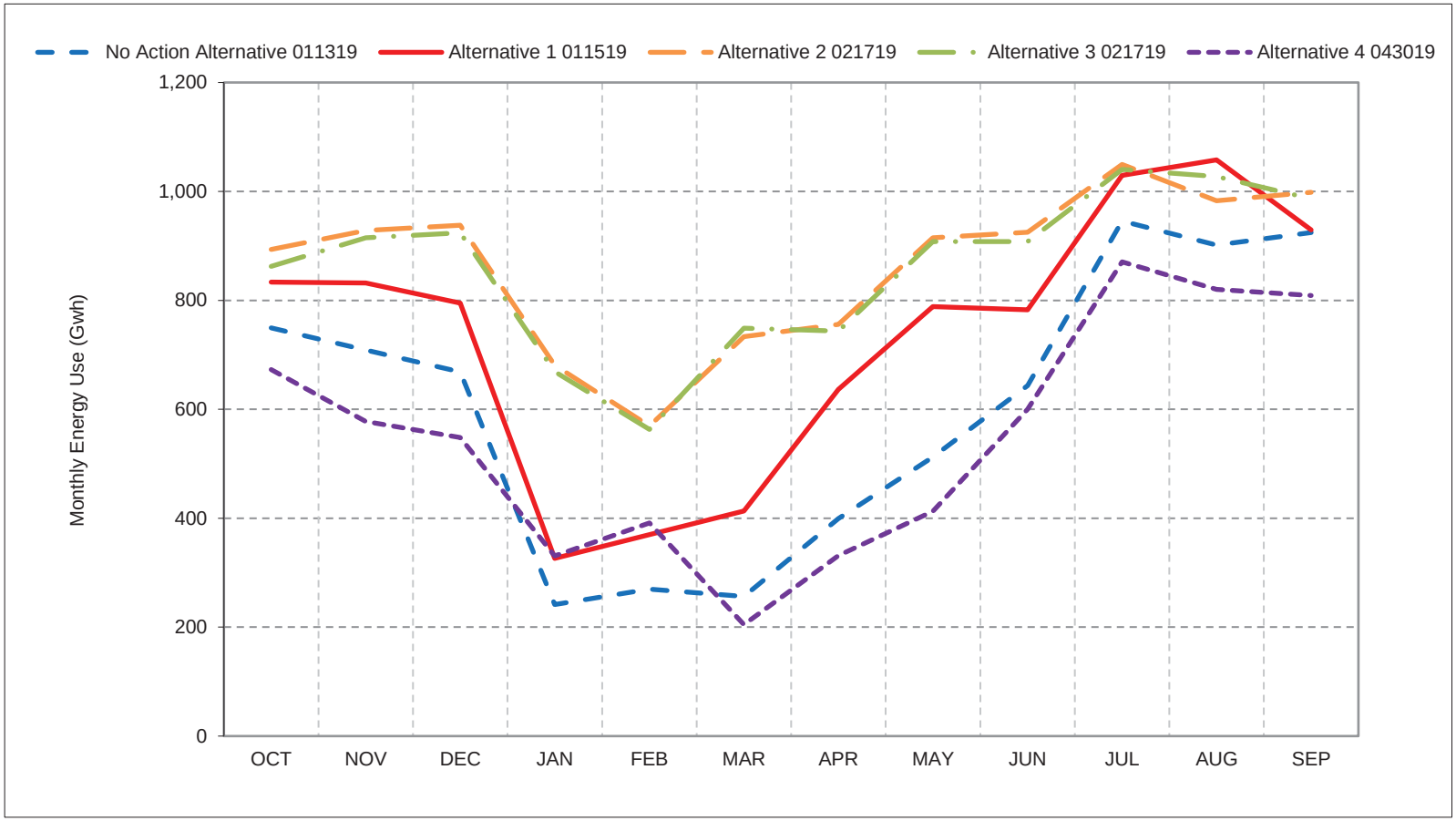
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-3. SWP Total Energy Use, Above Normal Year Average Energy Use



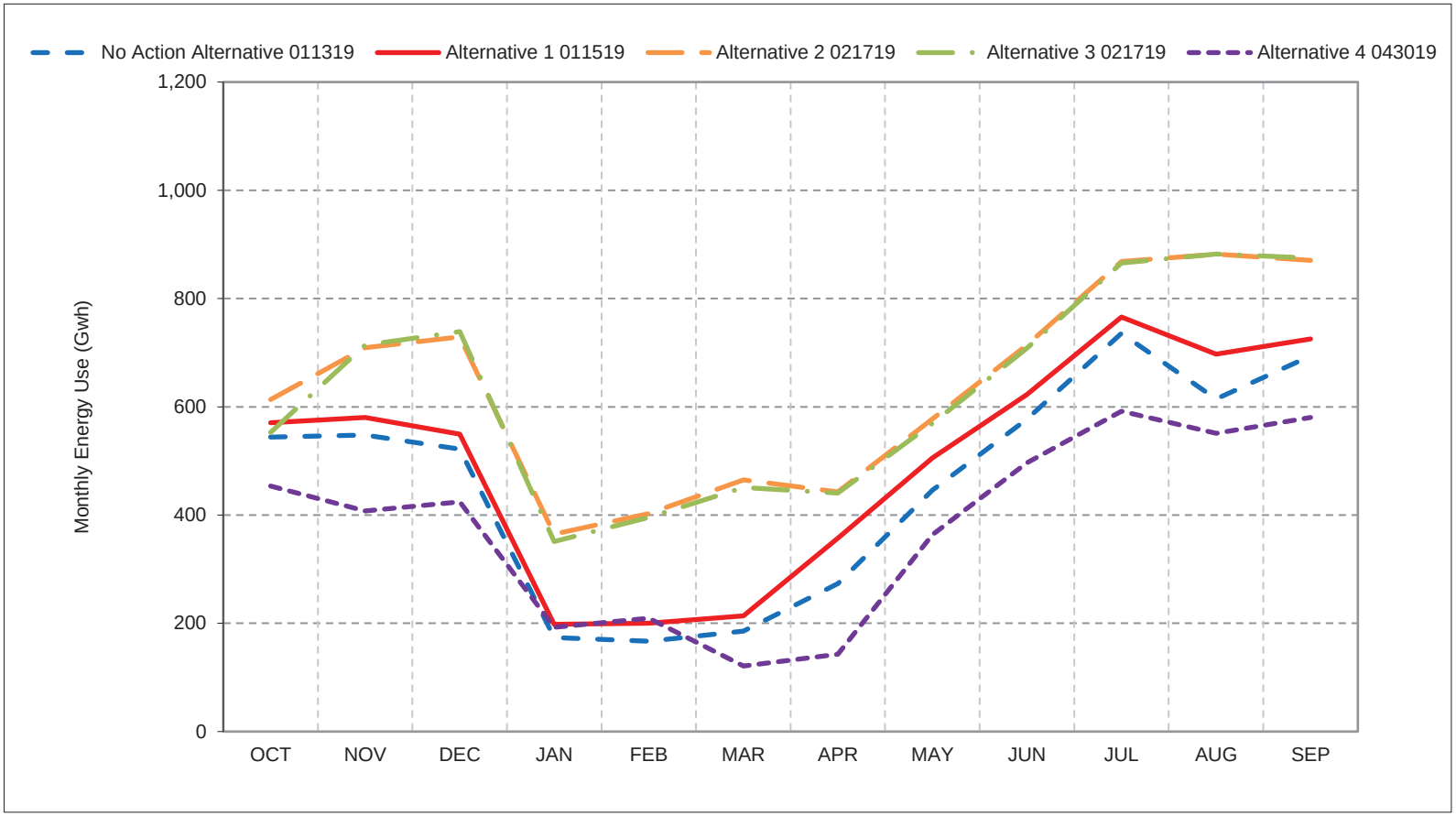
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-4. SWP Total Energy Use, Below Normal Year Average Energy Use



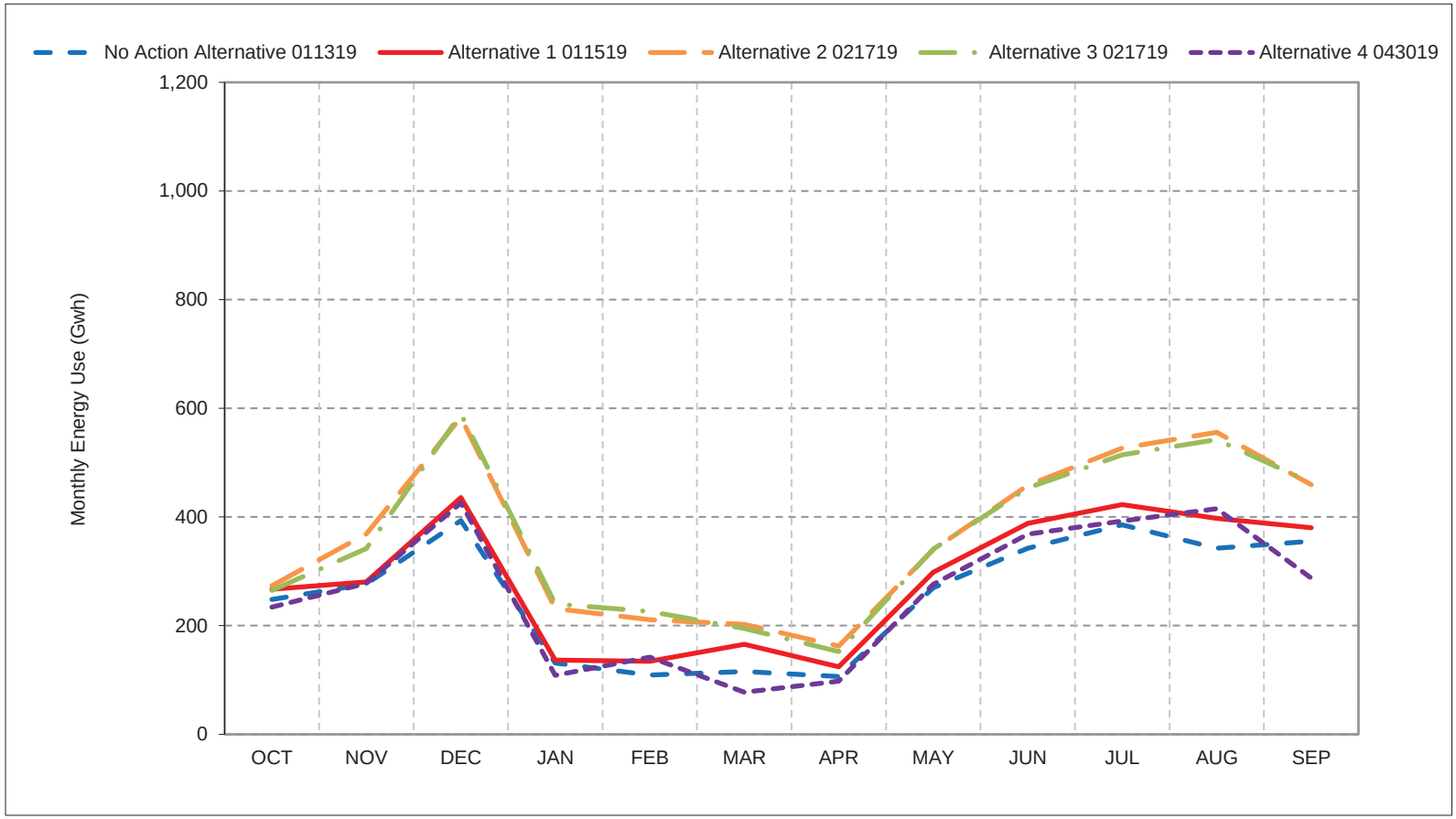
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-5. SWP Total Energy Use, Dry Year Average Energy Use



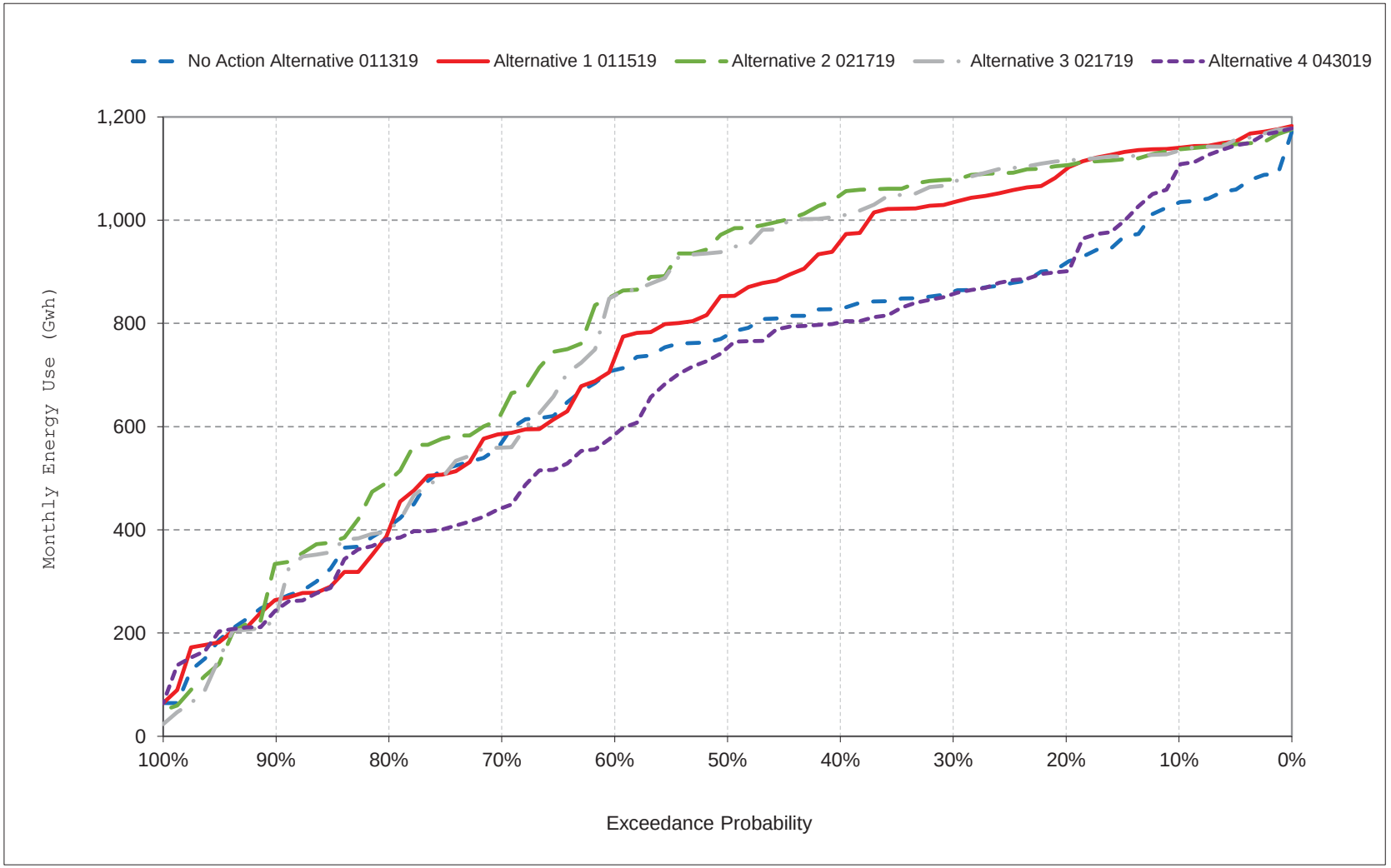
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-6. SWP Total Energy Use, Critical Year Average Energy Use



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

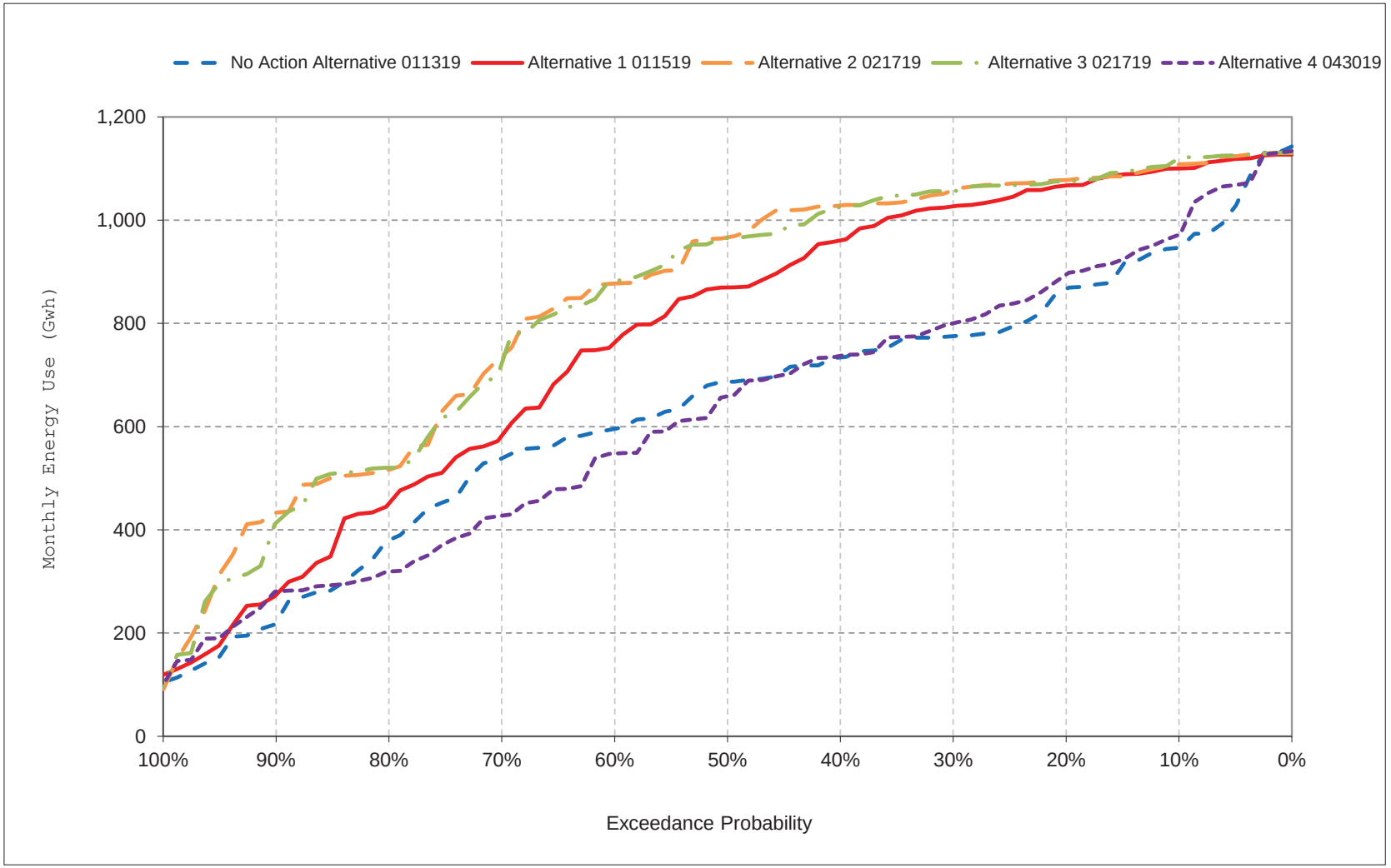
Figure 7-7. SWP Total Energy Use, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

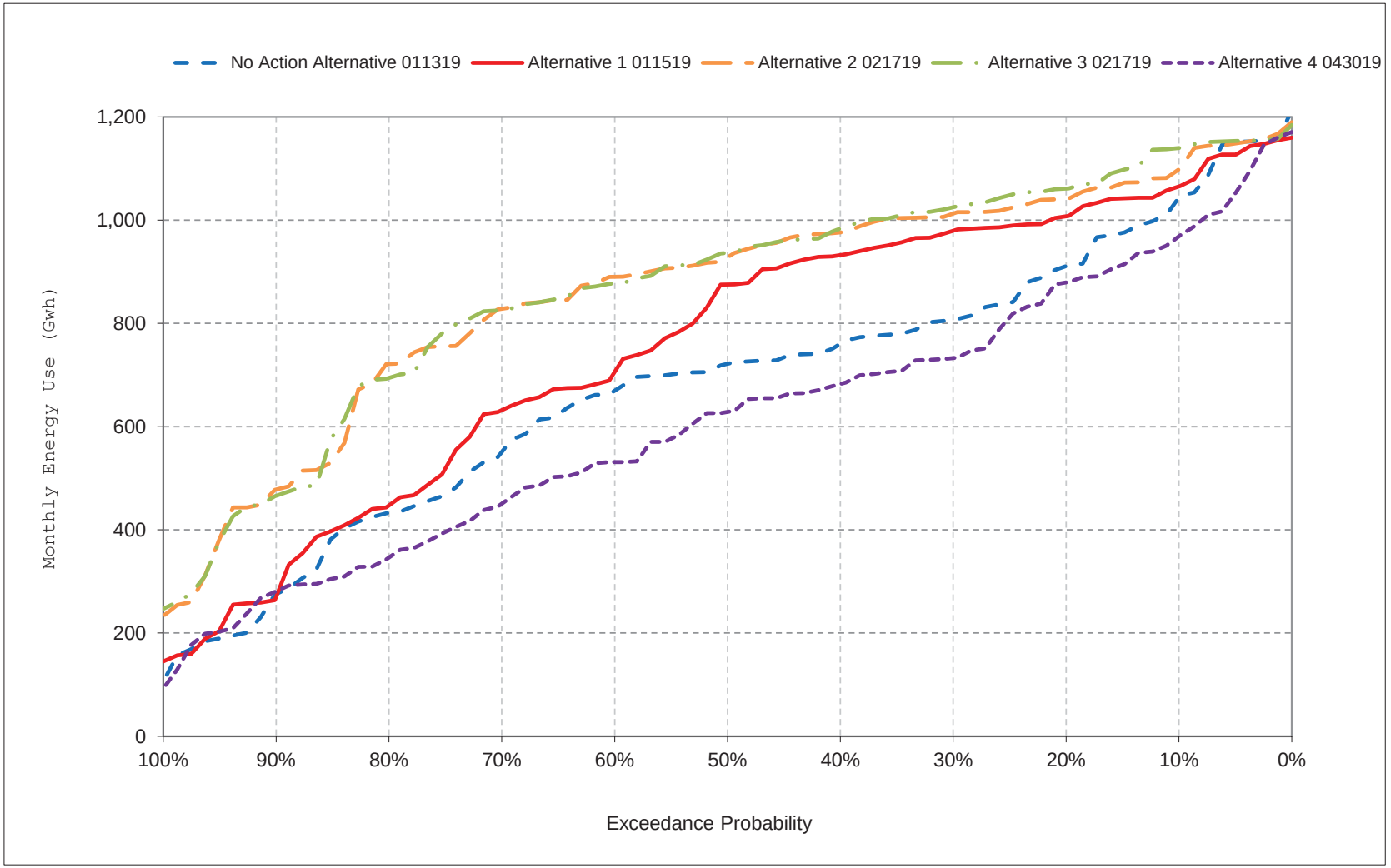
Figure 7-8. SWP Total Energy Use, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

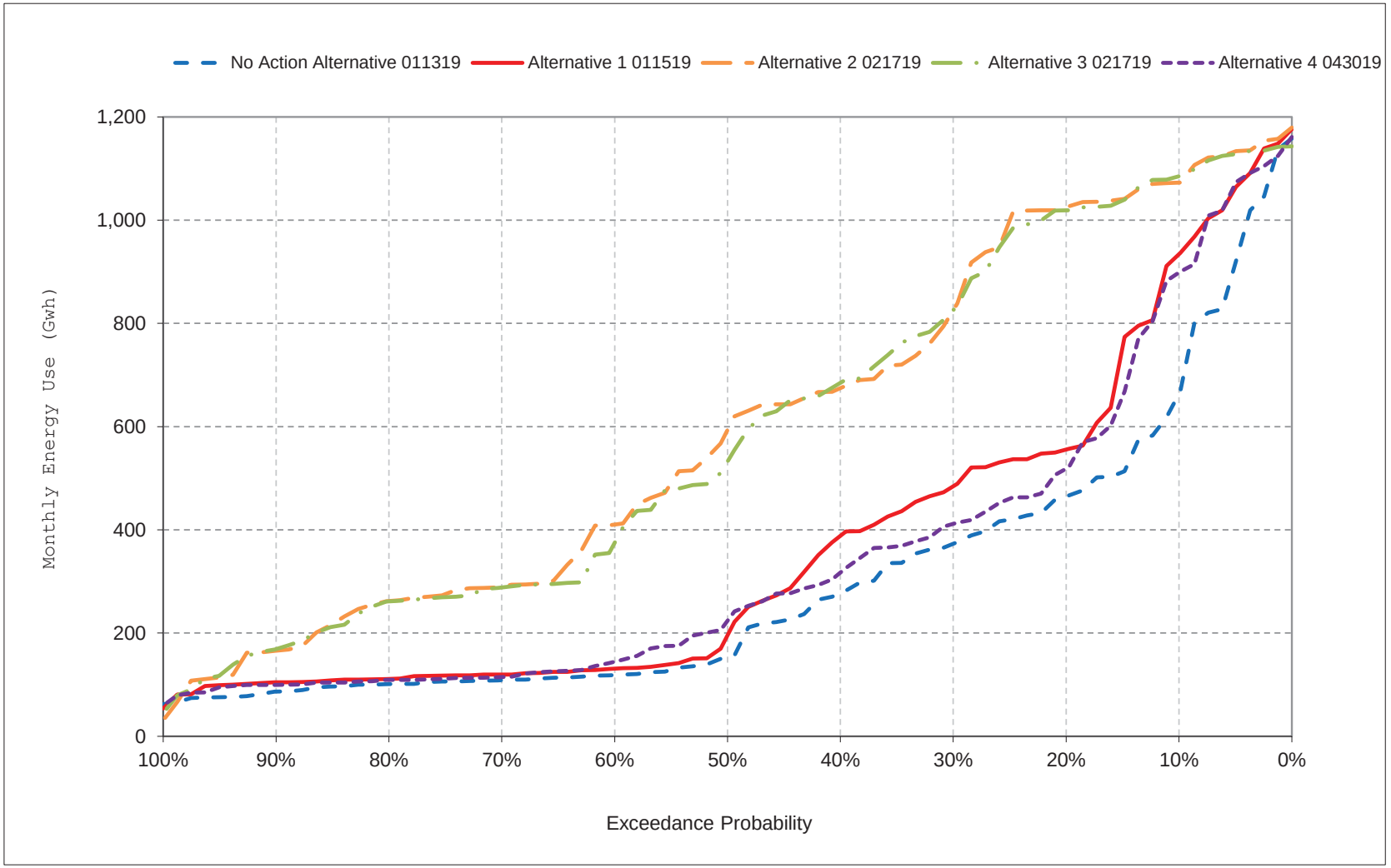
Figure 7-9. SWP Total Energy Use, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

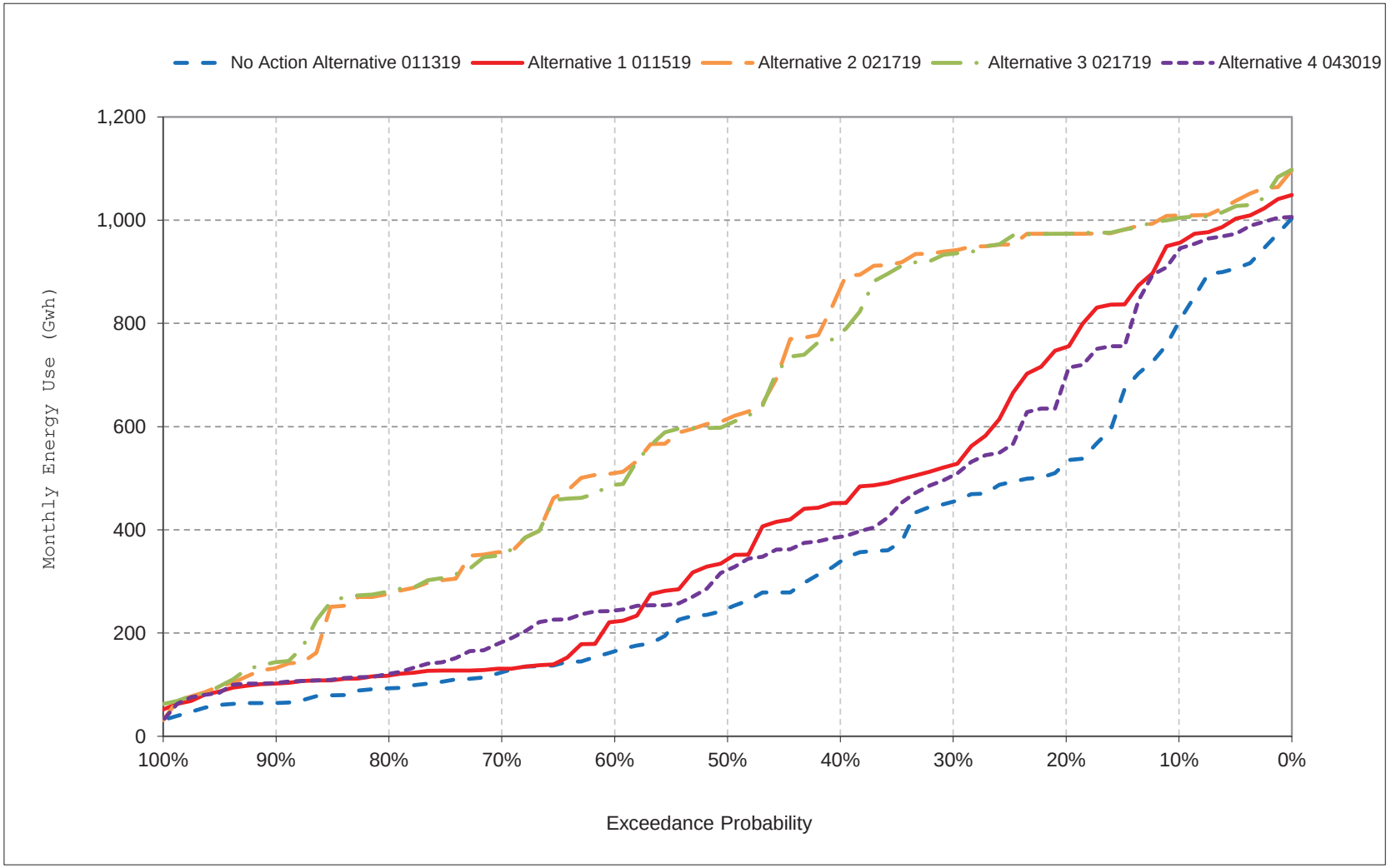
Figure 7-10. SWP Total Energy Use, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

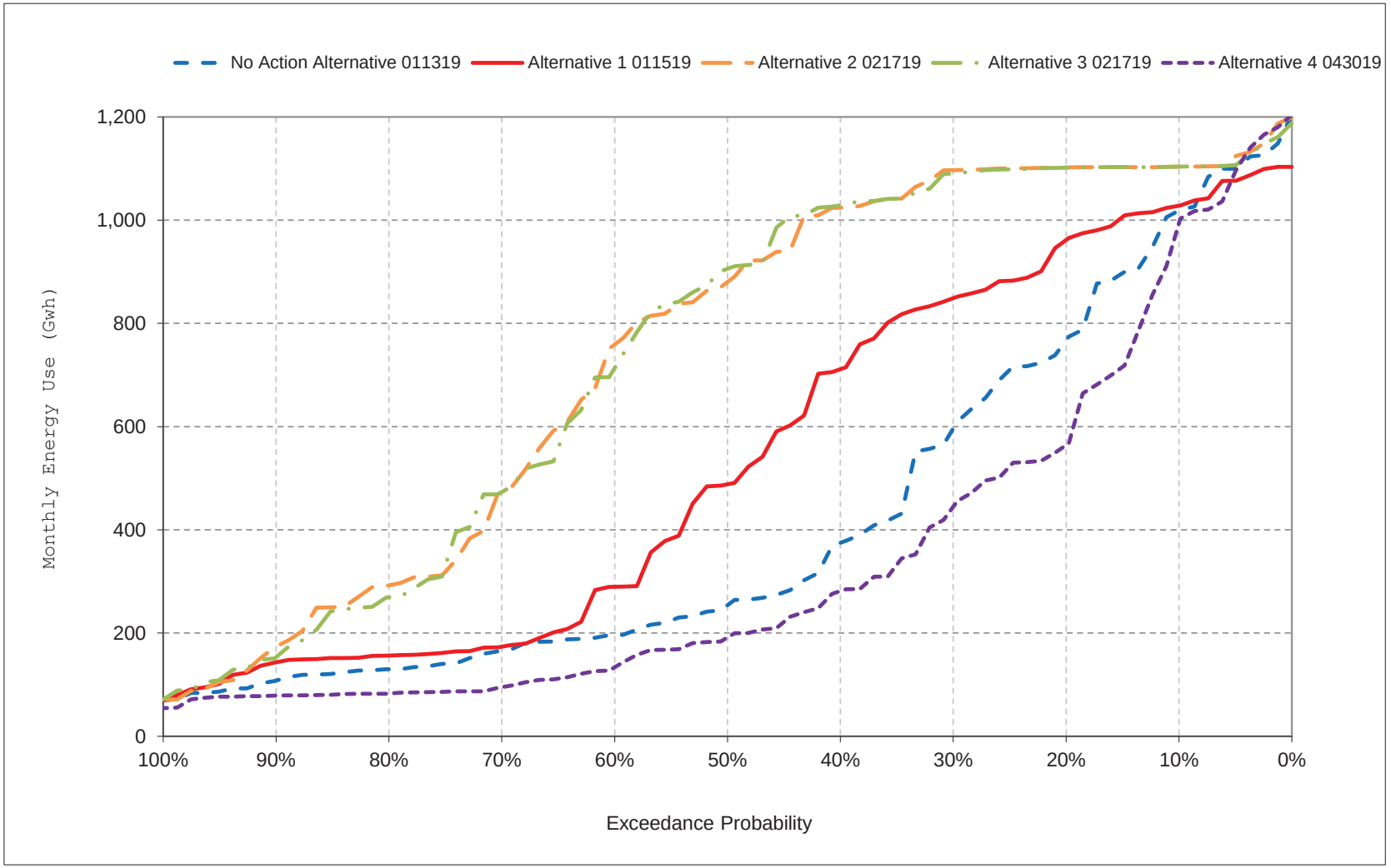
Figure 7-11. SWP Total Energy Use, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

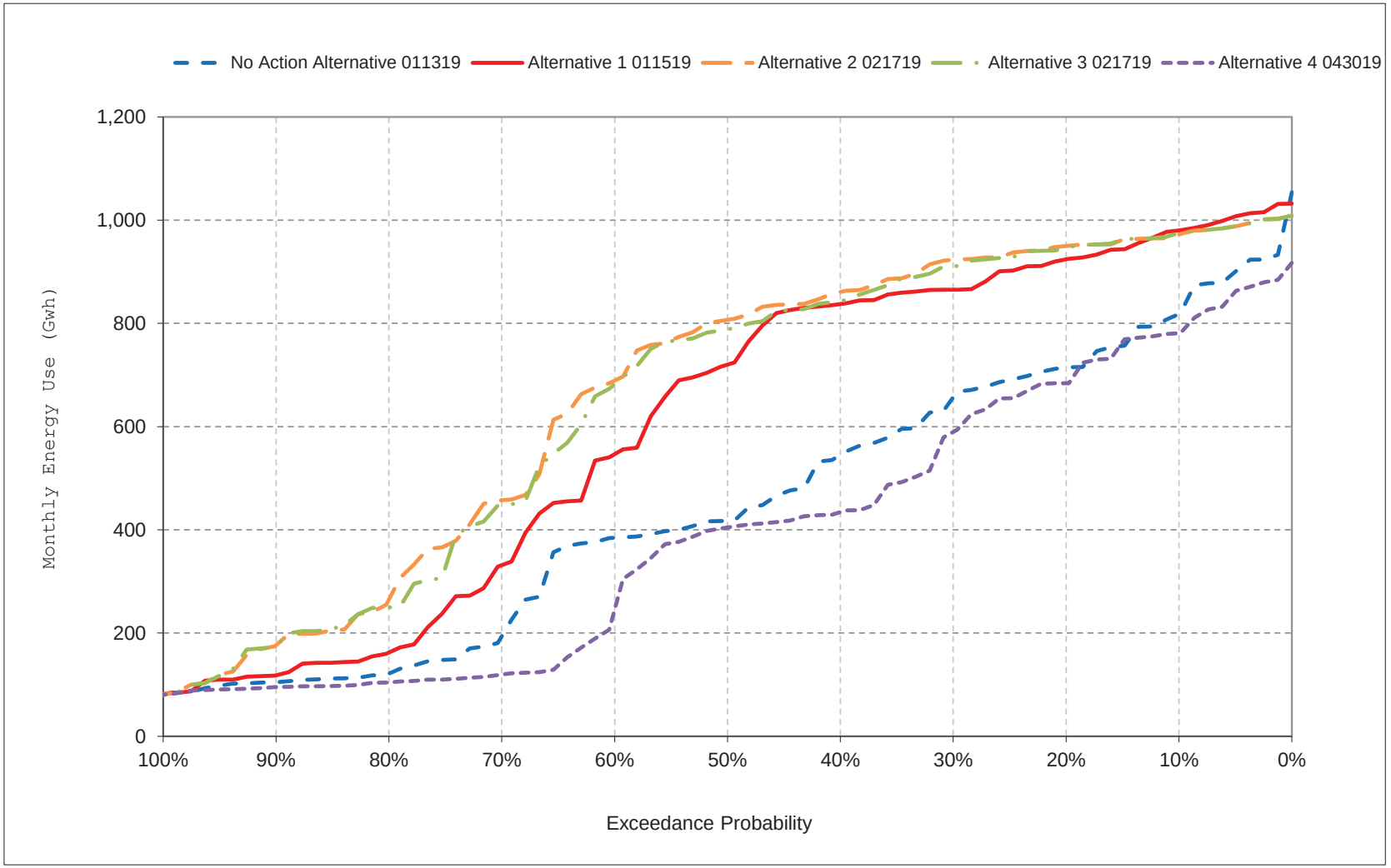
Figure 7-12. SWP Total Energy Use, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

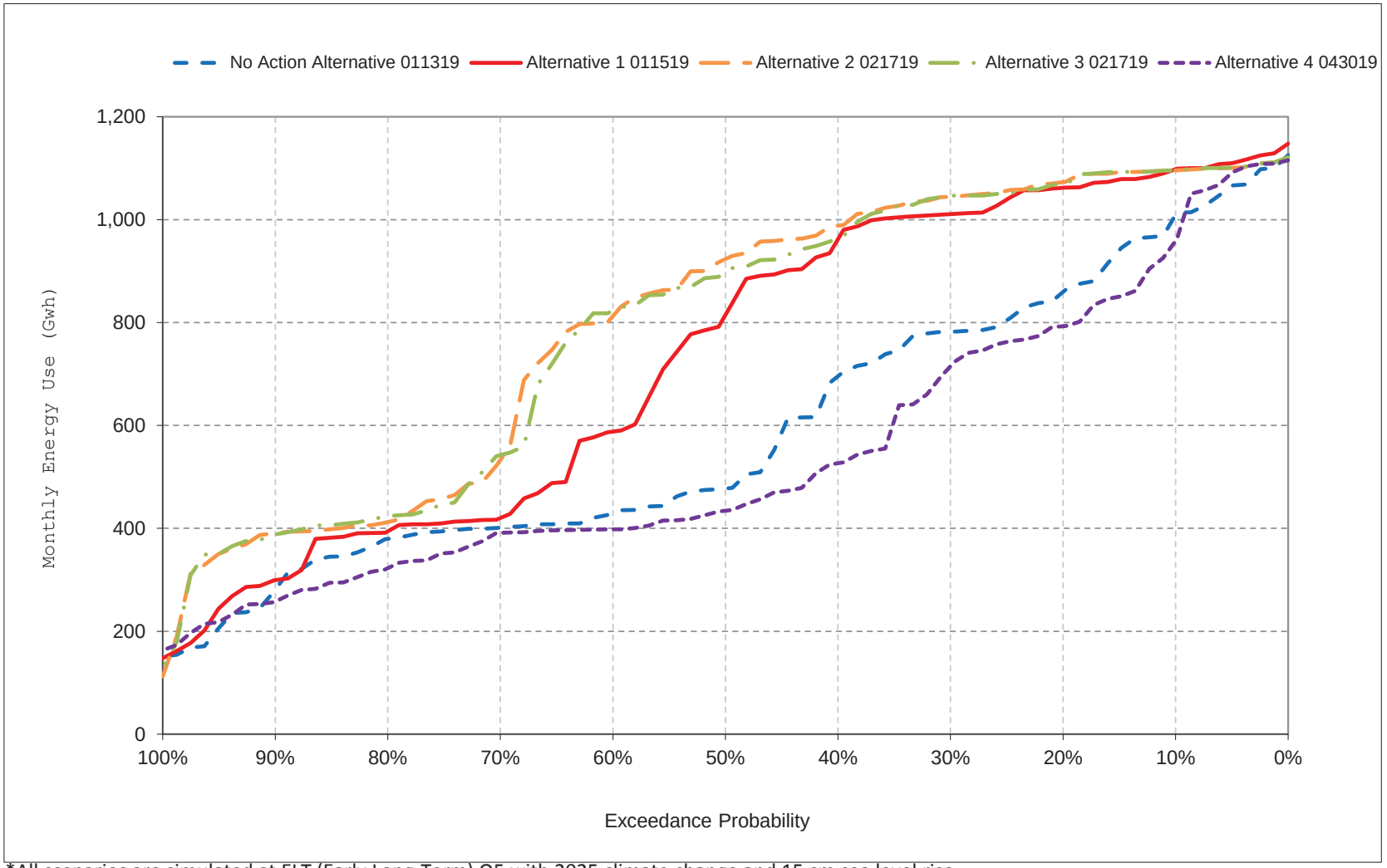
Figure 7-13. SWP Total Energy Use, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

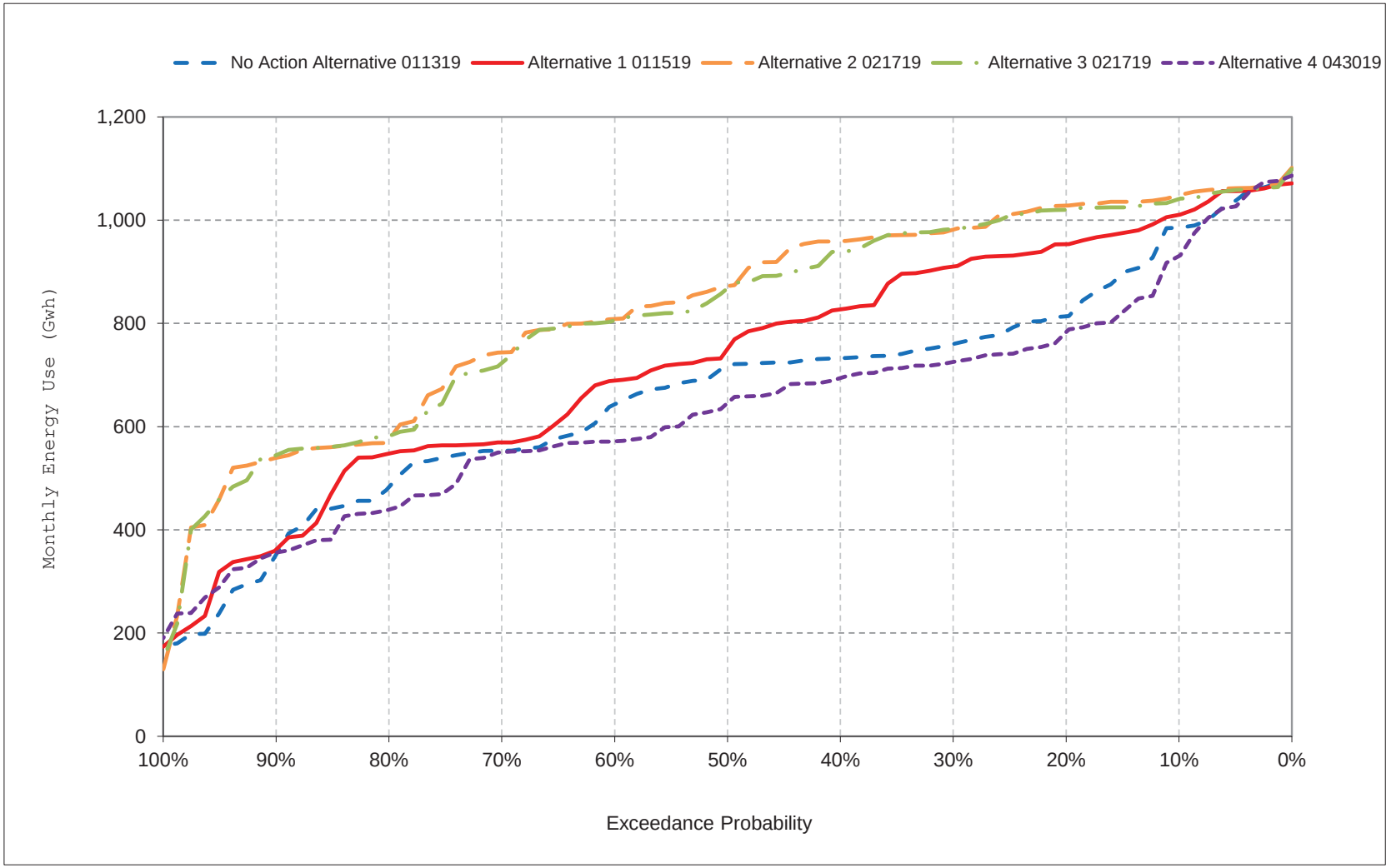
Figure 7-14. SWP Total Energy Use, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

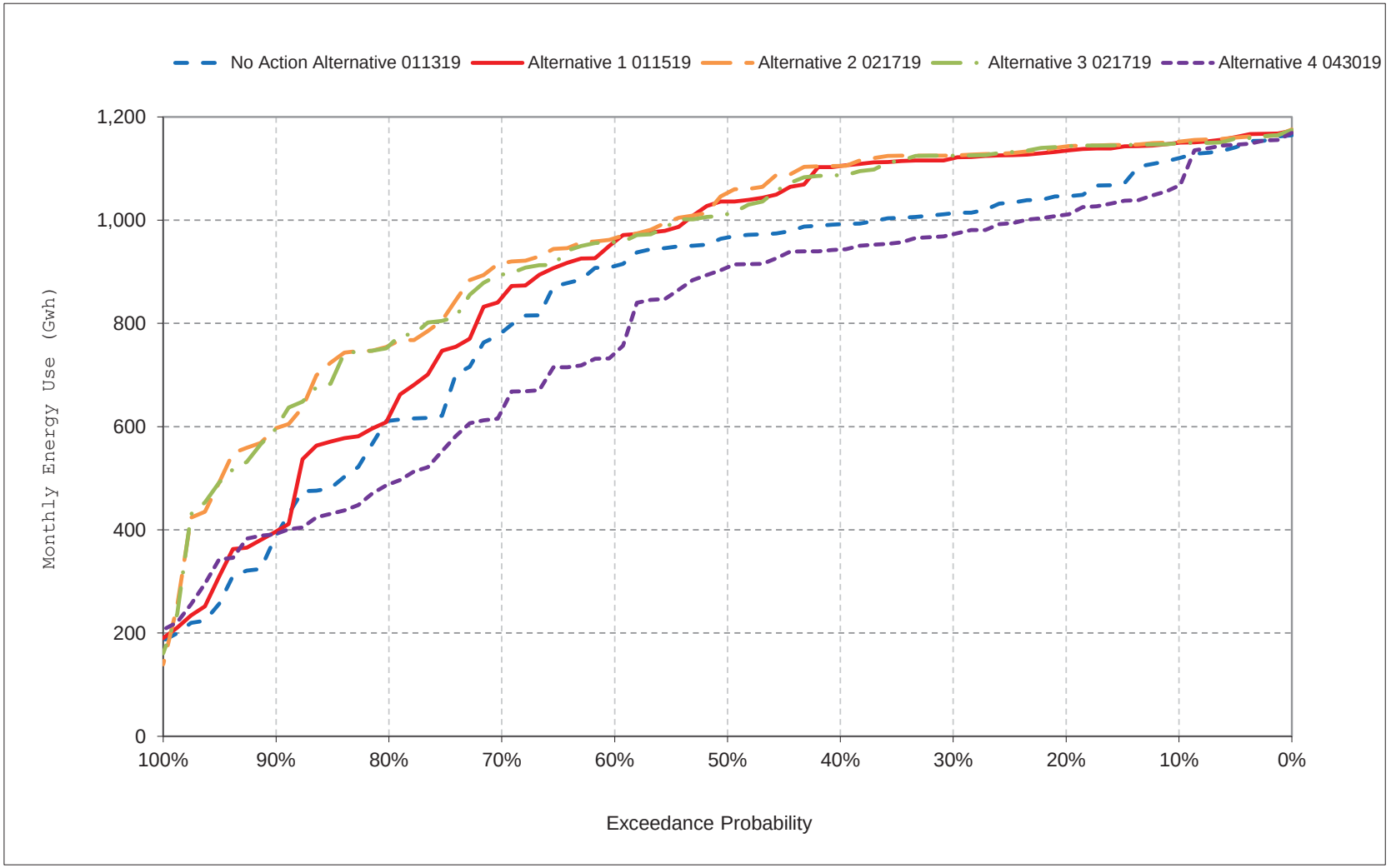
Figure 7-15. SWP Total Energy Use, June



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

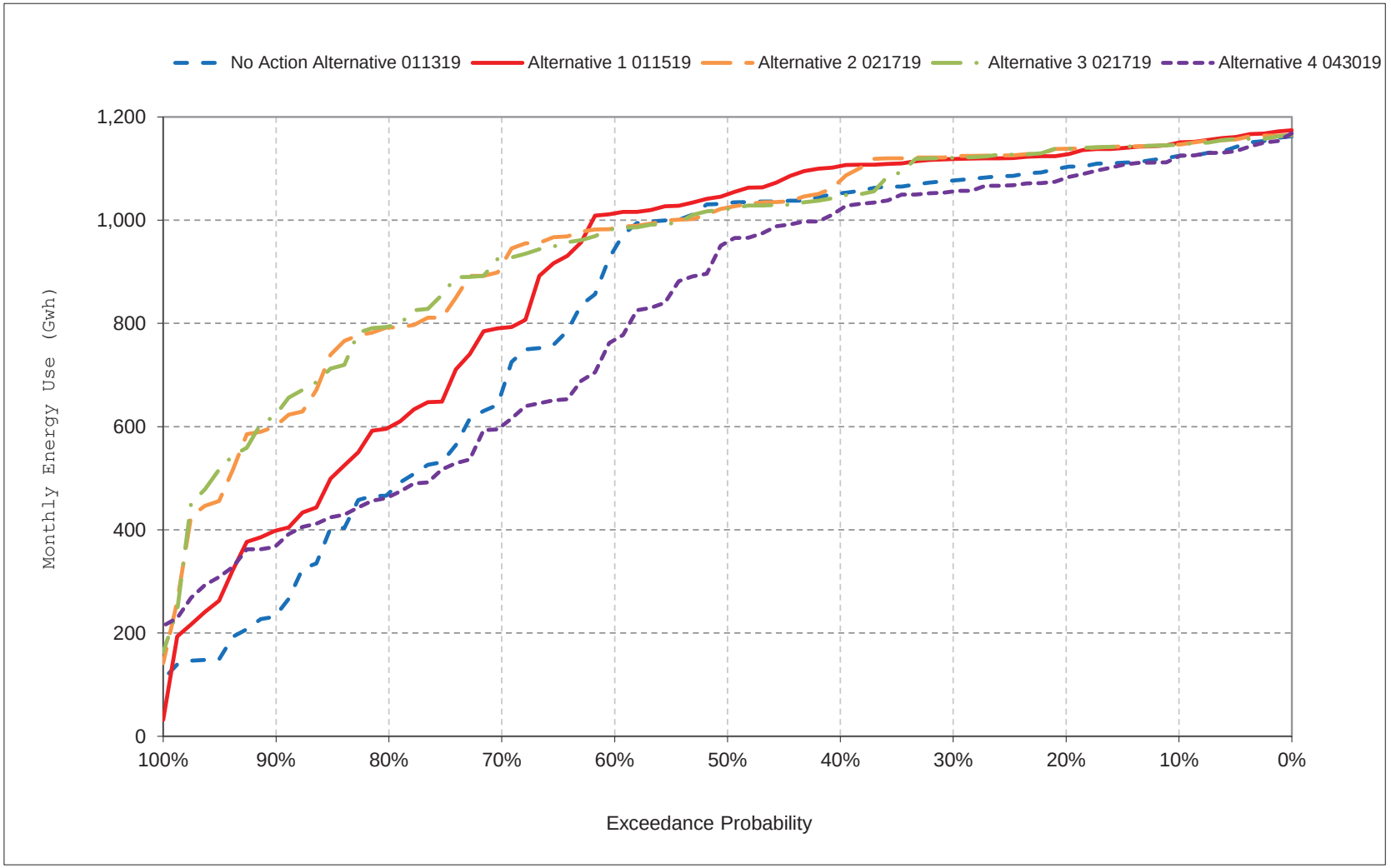
Figure 7-16. SWP Total Energy Use, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

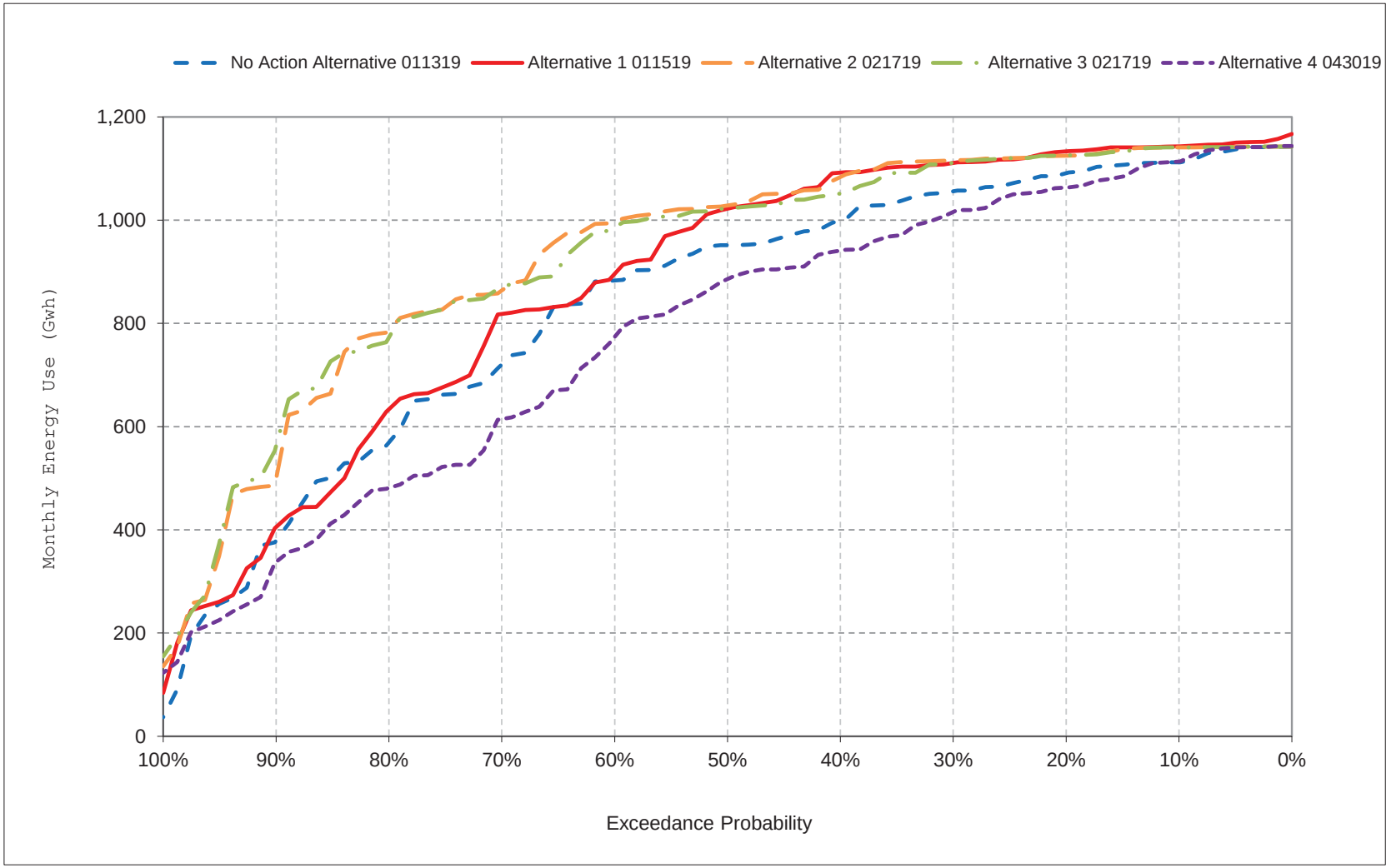
Figure 7-17. SWP Total Energy Use, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 7-18. SWP Total Energy Use, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 8-1. SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-160	-133	-155	-9	24	35	15	-16	-76	-137	-146	-223
20%	-224	-200	-229	-36	-17	-26	-21	-90	-138	-201	-261	-324
30%	-332	-288	-297	-43	-39	-48	-34	-117	-169	-247	-328	-383
40%	-372	-335	-401	-55	-52	-73	-60	-145	-211	-291	-432	-402
50%	-416	-376	-443	-70	-78	-95	-100	-157	-264	-310	-458	-427
60%	-445	-426	-465	-103	-107	-126	-169	-189	-309	-319	-474	-459
70%	-494	-458	-507	-162	-161	-155	-258	-257	-334	-361	-489	-485
80%	-520	-502	-559	-210	-210	-285	-292	-351	-376	-394	-523	-538
90%	-554	-579	-630	-264	-277	-421	-361	-398	-429	-464	-579	-592
Long Term												
Full Simulation Period[a]	-384	-366	-405	-102	-99	-140	-146	-197	-260	-309	-400	-422
Water Year Types[b,c]												
Wet (32%)	-471	-394	-519	-100	-80	-199	-202	-236	-372	-406	-531	-429
Above Normal (16%)	-473	-462	-471	-122	-132	-156	-225	-277	-325	-320	-458	-479
Below Normal (13%)	-452	-437	-424	-125	-157	-140	-158	-195	-253	-320	-422	-559
Dry (24%)	-314	-337	-285	-92	-91	-109	-104	-161	-172	-263	-310	-420
Critical (15%)	-151	-185	-272	-80	-65	-47	0	-86	-99	-153	-186	-222

Alternative 1 011519

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-143	-148	-153	-26	-2	-28	-14	-73	-67	-133	-191	-252
20%	-219	-277	-224	-43	-54	-73	-60	-108	-143	-226	-303	-370
30%	-323	-358	-327	-56	-60	-92	-112	-143	-183	-302	-408	-462
40%	-407	-467	-390	-67	-80	-112	-191	-201	-239	-327	-450	-522
50%	-517	-518	-427	-84	-106	-150	-276	-314	-275	-371	-494	-584
60%	-554	-591	-532	-123	-184	-174	-385	-376	-333	-400	-511	-611
70%	-611	-636	-598	-201	-224	-275	-456	-435	-384	-422	-526	-644
80%	-640	-657	-632	-251	-270	-369	-491	-497	-405	-444	-552	-659
90%	-675	-700	-669	-323	-319	-457	-539	-566	-477	-465	-586	-749
Long Term												
Full Simulation Period[a]	-449	-474	-439	-139	-144	-207	-279	-303	-280	-349	-441	-524
Water Year Types[b,c]												
Wet (32%)	-571	-606	-523	-145	-160	-245	-367	-363	-378	-449	-554	-668
Above Normal (16%)	-588	-612	-550	-190	-182	-315	-459	-463	-359	-386	-492	-610
Below Normal (13%)	-519	-524	-505	-183	-171	-243	-337	-371	-317	-364	-508	-563
Dry (24%)	-333	-359	-304	-108	-118	-138	-173	-203	-176	-285	-358	-434
Critical (15%)	-162	-182	-303	-83	-90	-88	-15	-101	-119	-185	-219	-234

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	17	-14	2	-17	-26	-63	-29	-57	9	4	-45	-29
20%	5	-77	5	-7	-37	-47	-39	-18	-6	-26	-42	-46
30%	9	-70	-29	-13	-21	-44	-78	-26	-14	-55	-80	-79
40%	-35	-132	11	-12	-28	-39	-131	-56	-28	-36	-18	-121
50%	-101	-143	16	-15	-28	-55	-176	-157	-10	-61	-36	-157
60%	-108	-165	-67	-20	-77	-48	-216	-187	-23	-81	-37	-152
70%	-117	-178	-91	-39	-63	-120	-198	-177	-50	-61	-37	-159
80%	-120	-155	-73	-41	-61	-84	-199	-147	-29	-50	-29	-121
90%	-121	-122	-39	-58	-42	-37	-178	-168	-48	-1	-8	-156
Long Term												
Full Simulation Period[a]	-65	-108	-34	-37	-45	-66	-133	-106	-20	-40	-41	-103
Water Year Types[b,c]												
Wet (32%)	-100	-212	-4	-45	-80	-46	-166	-128	-7	-43	-23	-240
Above Normal (16%)	-115	-150	-79	-68	-49	-159	-233	-185	-35	-66	-34	-131
Below Normal (13%)	-68	-86	-81	-58	-13	-103	-179	-176	-64	-44	-85	-4
Dry (24%)	-19	-22	-19	-16	-27	-28	-69	-41	-4	-22	-48	-15
Critical (15%)	-11	3	-31	-3	-26	-41	-15	-15	-20	-32	-33	-11

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 8-2. SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-160	-133	-155	-9	24	35	15	-16	-76	-137	-146	-223
20%	-224	-200	-229	-36	-17	-26	-21	-90	-138	-201	-261	-324
30%	-332	-288	-297	-43	-39	-48	-34	-117	-169	-247	-328	-383
40%	-372	-335	-401	-55	-52	-73	-60	-145	-211	-291	-432	-402
50%	-416	-376	-443	-70	-78	-95	-100	-157	-264	-310	-458	-427
60%	-445	-426	-465	-103	-107	-126	-169	-189	-309	-319	-474	-459
70%	-494	-458	-507	-162	-161	-155	-258	-257	-334	-361	-489	-485
80%	-520	-502	-559	-210	-210	-285	-292	-351	-376	-394	-523	-538
90%	-554	-579	-630	-264	-277	-421	-361	-398	-429	-464	-579	-592
Long Term												
Full Simulation Period[a]	-384	-366	-405	-102	-99	-140	-146	-197	-260	-309	-400	-422
Water Year Types[b,c]												
Wet (32%)	-471	-394	-519	-100	-80	-199	-202	-236	-372	-406	-531	-429
Above Normal (16%)	-473	-462	-471	-122	-132	-156	-225	-277	-325	-320	-458	-479
Below Normal (13%)	-452	-437	-424	-125	-157	-140	-158	-195	-253	-320	-422	-559
Dry (24%)	-314	-337	-285	-92	-91	-109	-104	-161	-172	-263	-310	-420
Critical (15%)	-151	-185	-272	-80	-65	-47	0	-86	-99	-153	-186	-222

Alternative 2 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-160	-251	-265	-110	-58	-104	-66	-112	-156	-263	-336	-334
20%	-277	-305	-361	-153	-108	-145	-114	-140	-187	-328	-430	-488
30%	-385	-472	-483	-208	-188	-203	-169	-194	-220	-355	-476	-526
40%	-479	-545	-539	-228	-248	-301	-259	-289	-266	-386	-499	-591
50%	-557	-586	-575	-264	-295	-351	-350	-369	-323	-404	-513	-610
60%	-603	-630	-607	-292	-328	-400	-422	-420	-367	-420	-529	-624
70%	-632	-647	-629	-408	-395	-504	-484	-462	-407	-431	-547	-643
80%	-642	-673	-671	-469	-459	-542	-515	-521	-447	-451	-564	-677
90%	-674	-711	-707	-646	-597	-612	-564	-576	-496	-489	-606	-740
Long Term												
Full Simulation Period[a]	-479	-524	-531	-320	-304	-351	-325	-344	-320	-394	-494	-564
Water Year Types[b,c]												
Wet (32%)	-617	-615	-550	-336	-305	-364	-383	-383	-419	-457	-569	-666
Above Normal (16%)	-626	-655	-644	-443	-458	-507	-527	-549	-429	-418	-518	-617
Below Normal (13%)	-546	-588	-622	-452	-330	-463	-423	-432	-321	-430	-509	-620
Dry (24%)	-355	-451	-451	-243	-279	-314	-234	-245	-218	-366	-476	-534
Critical (15%)	-166	-247	-415	-163	-151	-113	-44	-123	-154	-245	-322	-287

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	0	-118	-111	-101	-83	-139	-81	-96	-80	-126	-190	-111
20%	-54	-104	-132	-118	-90	-119	-93	-50	-49	-127	-169	-164
30%	-53	-184	-185	-165	-148	-155	-135	-77	-51	-108	-147	-143
40%	-107	-210	-138	-174	-197	-228	-199	-145	-55	-95	-67	-189
50%	-141	-210	-133	-194	-217	-256	-250	-212	-59	-94	-56	-183
60%	-157	-205	-142	-189	-220	-274	-253	-231	-58	-101	-54	-165
70%	-138	-189	-122	-246	-234	-349	-226	-205	-73	-70	-58	-158
80%	-122	-171	-112	-259	-250	-257	-223	-170	-71	-57	-41	-140
90%	-120	-132	-78	-382	-320	-191	-203	-178	-67	-25	-27	-148
Long Term												
Full Simulation Period[a]	-95	-158	-125	-218	-205	-211	-179	-147	-60	-85	-94	-143
Water Year Types[b,c]												
Wet (32%)	-146	-221	-31	-235	-225	-165	-181	-147	-48	-51	-39	-237
Above Normal (16%)	-153	-193	-173	-320	-325	-351	-302	-272	-105	-98	-60	-138
Below Normal (13%)	-95	-151	-199	-328	-173	-323	-266	-237	-67	-110	-86	-61
Dry (24%)	-42	-113	-166	-150	-189	-205	-131	-83	-46	-103	-166	-114
Critical (15%)	-15	-63	-143	-83	-86	-66	-44	-37	-55	-92	-136	-65

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 8-3. SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-160	-133	-155	-9	24	35	15	-16	-76	-137	-146	-223
20%	-224	-200	-229	-36	-17	-26	-21	-90	-138	-201	-261	-324
30%	-332	-288	-297	-43	-39	-48	-34	-117	-169	-247	-328	-383
40%	-372	-335	-401	-55	-52	-73	-60	-145	-211	-291	-432	-402
50%	-416	-376	-443	-70	-78	-95	-100	-157	-264	-310	-458	-427
60%	-445	-426	-465	-103	-107	-126	-169	-189	-309	-319	-474	-459
70%	-494	-458	-507	-162	-161	-155	-258	-257	-334	-361	-489	-485
80%	-520	-502	-559	-210	-210	-285	-292	-351	-376	-394	-523	-538
90%	-554	-579	-630	-264	-277	-421	-361	-398	-429	-464	-579	-592
Long Term												
Full Simulation Period[a]	-384	-366	-405	-102	-99	-140	-146	-197	-260	-309	-400	-422
Water Year Types[b,c]												
Wet (32%)	-471	-394	-519	-100	-80	-199	-202	-236	-372	-406	-531	-429
Above Normal (16%)	-473	-462	-471	-122	-132	-156	-225	-277	-325	-320	-458	-479
Below Normal (13%)	-452	-437	-424	-125	-157	-140	-158	-195	-253	-320	-422	-559
Dry (24%)	-314	-337	-285	-92	-91	-109	-104	-161	-172	-263	-310	-420
Critical (15%)	-151	-185	-272	-80	-65	-47	0	-86	-99	-153	-186	-222

Alternative 3 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-157	-251	-272	-108	-61	-101	-72	-106	-155	-276	-335	-344
20%	-224	-313	-387	-142	-116	-139	-118	-139	-181	-315	-437	-474
30%	-318	-456	-479	-190	-211	-178	-151	-195	-220	-344	-478	-534
40%	-453	-531	-522	-222	-243	-285	-251	-284	-252	-378	-497	-560
50%	-549	-593	-583	-250	-274	-334	-329	-375	-309	-398	-514	-592
60%	-596	-633	-613	-284	-324	-411	-403	-418	-361	-412	-531	-609
70%	-621	-653	-633	-391	-394	-482	-478	-465	-407	-430	-543	-642
80%	-635	-677	-679	-476	-464	-542	-512	-512	-440	-449	-562	-674
90%	-677	-702	-705	-642	-596	-603	-566	-580	-494	-483	-610	-742
Long Term												
Full Simulation Period[a]	-461	-520	-534	-313	-299	-348	-318	-343	-317	-388	-495	-560
Water Year Types[b,c]												
Wet (32%)	-611	-613	-558	-321	-310	-358	-369	-385	-412	-452	-571	-653
Above Normal (16%)	-624	-655	-636	-444	-426	-510	-525	-551	-432	-411	-515	-612
Below Normal (13%)	-525	-579	-618	-444	-318	-474	-416	-430	-319	-419	-537	-617
Dry (24%)	-307	-454	-458	-235	-275	-305	-234	-237	-215	-367	-472	-537
Critical (15%)	-157	-227	-420	-165	-162	-109	-38	-124	-155	-235	-311	-290

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	3	-117	-118	-99	-86	-136	-87	-90	-79	-140	-188	-121
20%	-1	-113	-158	-106	-99	-113	-97	-50	-43	-114	-177	-150
30%	14	-168	-181	-147	-172	-131	-117	-78	-51	-97	-150	-151
40%	-81	-196	-122	-168	-191	-212	-191	-139	-41	-87	-65	-158
50%	-133	-217	-140	-181	-197	-238	-229	-218	-44	-88	-56	-165
60%	-150	-207	-148	-181	-216	-285	-235	-230	-52	-93	-57	-150
70%	-128	-195	-126	-229	-233	-327	-220	-207	-73	-69	-54	-157
80%	-115	-176	-120	-266	-254	-257	-220	-161	-63	-55	-39	-136
90%	-122	-123	-76	-378	-319	-183	-205	-182	-65	-19	-32	-150
Long Term												
Full Simulation Period[a]	-77	-154	-128	-211	-200	-208	-172	-146	-57	-80	-95	-139
Water Year Types[b,c]												
Wet (32%)	-140	-219	-39	-221	-230	-159	-167	-150	-41	-46	-40	-224
Above Normal (16%)	-151	-193	-165	-321	-294	-354	-300	-274	-107	-92	-57	-133
Below Normal (13%)	-73	-141	-194	-319	-160	-333	-258	-235	-66	-99	-114	-59
Dry (24%)	6	-116	-173	-142	-185	-196	-130	-75	-43	-104	-162	-118
Critical (15%)	-6	-42	-148	-85	-97	-62	-38	-38	-56	-82	-125	-68

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 8-4. SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-160	-133	-155	-9	24	35	15	-16	-76	-137	-146	-223
20%	-224	-200	-229	-36	-17	-26	-21	-90	-138	-201	-261	-324
30%	-332	-288	-297	-43	-39	-48	-34	-117	-169	-247	-328	-383
40%	-372	-335	-401	-55	-52	-73	-60	-145	-211	-291	-432	-402
50%	-416	-376	-443	-70	-78	-95	-100	-157	-264	-310	-458	-427
60%	-445	-426	-465	-103	-107	-126	-169	-189	-309	-319	-474	-459
70%	-494	-458	-507	-162	-161	-155	-258	-257	-334	-361	-489	-485
80%	-520	-502	-559	-210	-210	-285	-292	-351	-376	-394	-523	-538
90%	-554	-579	-630	-264	-277	-421	-361	-398	-429	-464	-579	-592
Long Term												
Full Simulation Period[a]	-384	-366	-405	-102	-99	-140	-146	-197	-260	-309	-400	-422
Water Year Types[b,c]												
Wet (32%)	-471	-394	-519	-100	-80	-199	-202	-236	-372	-406	-531	-429
Above Normal (16%)	-473	-462	-471	-122	-132	-156	-225	-277	-325	-320	-458	-479
Below Normal (13%)	-452	-437	-424	-125	-157	-140	-158	-195	-253	-320	-422	-559
Dry (24%)	-314	-337	-285	-92	-91	-109	-104	-161	-172	-263	-310	-420
Critical (15%)	-151	-185	-272	-80	-65	-47	0	-86	-99	-153	-186	-222

Alternative 4 043019

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-130	-131	-116	-20	-14	110	54	-25	-74	-109	-189	-177
20%	-207	-190	-187	-38	-52	35	24	-46	-104	-150	-237	-279
30%	-270	-267	-233	-53	-64	-10	7	-87	-161	-234	-319	-358
40%	-339	-321	-311	-66	-81	-22	-7	-114	-201	-277	-379	-456
50%	-423	-386	-341	-83	-128	-32	-39	-136	-243	-290	-435	-506
60%	-472	-439	-385	-127	-164	-41	-56	-158	-266	-320	-470	-546
70%	-499	-476	-449	-159	-186	-76	-104	-188	-299	-333	-489	-588
80%	-554	-546	-476	-219	-218	-140	-189	-240	-339	-350	-504	-625
90%	-616	-581	-560	-266	-313	-222	-238	-289	-408	-459	-555	-683
Long Term												
Full Simulation Period[a]	-389	-371	-343	-127	-137	-44	-66	-147	-235	-283	-392	-466
Water Year Types[b,c]												
Wet (32%)	-547	-513	-415	-125	-140	-99	-131	-195	-359	-395	-519	-627
Above Normal (16%)	-516	-492	-437	-197	-166	-11	-131	-214	-308	-320	-470	-564
Below Normal (13%)	-381	-344	-326	-160	-195	-11	-27	-108	-204	-287	-414	-503
Dry (24%)	-253	-232	-225	-106	-106	-33	-7	-98	-118	-188	-263	-348
Critical (15%)	-143	-185	-295	-63	-94	-13	7	-88	-113	-157	-230	-176

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	30	3	39	**-11**	**-38**	75	39	**-9**	2	27	**-43**	46
20%	17	11	42	**-3**	**-35**	61	45	44	33	51	24	45
30%	62	21	64	**-10**	**-25**	37	41	30	9	13	10	25
40%	34	14	90	**-12**	**-29**	50	53	31	10	14	53	**-54**
50%	**-7**	**-11**	102	**-13**	**-51**	63	61	21	21	20	23	**-79**
60%	**-26**	**-14**	80	**-24**	**-57**	85	113	31	43	**-1**	5	**-87**
70%	**-6**	**-18**	58	3	**-25**	78	154	69	35	28	0	**-103**
80%	**-34**	**-44**	83	**-9**	**-9**	145	103	110	38	44	19	**-87**
90%	**-62**	**-3**	70	**-1**	**-36**	199	122	109	21	5	23	**-91**
Long Term												
Full Simulation Period[a]	**-5**	**-5**	63	**-25**	**-38**	96	80	50	25	26	8	**-45**
Water Year Types[b,c]												
Wet (32%)	**-75**	**-119**	104	**-25**	**-60**	100	71	40	13	11	12	**-198**
Above Normal (16%)	**-43**	**-31**	33	**-74**	**-34**	145	94	63	17	**-1**	**-11**	**-85**
Below Normal (13%)	71	93	97	**-36**	**-38**	130	131	87	49	33	9	55
Dry (24%)	60	105	61	**-14**	**-15**	76	97	64	54	75	47	72
Critical (15%)	8	**-1**	**-23**	16	**-30**	35	7	**-2**	**-13**	**-4**	**-44**	46

a Based on the 82-year simulation period.

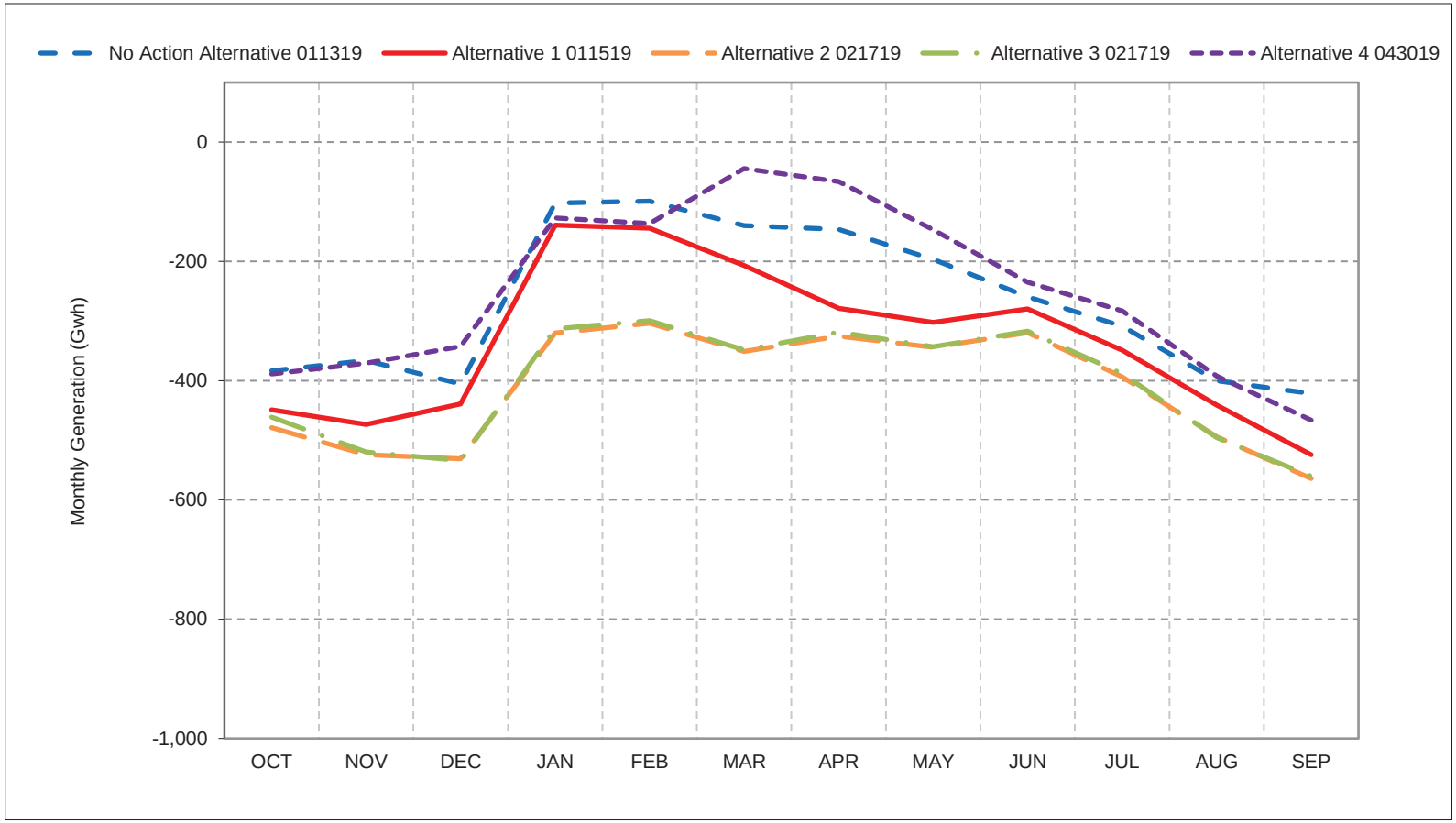
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

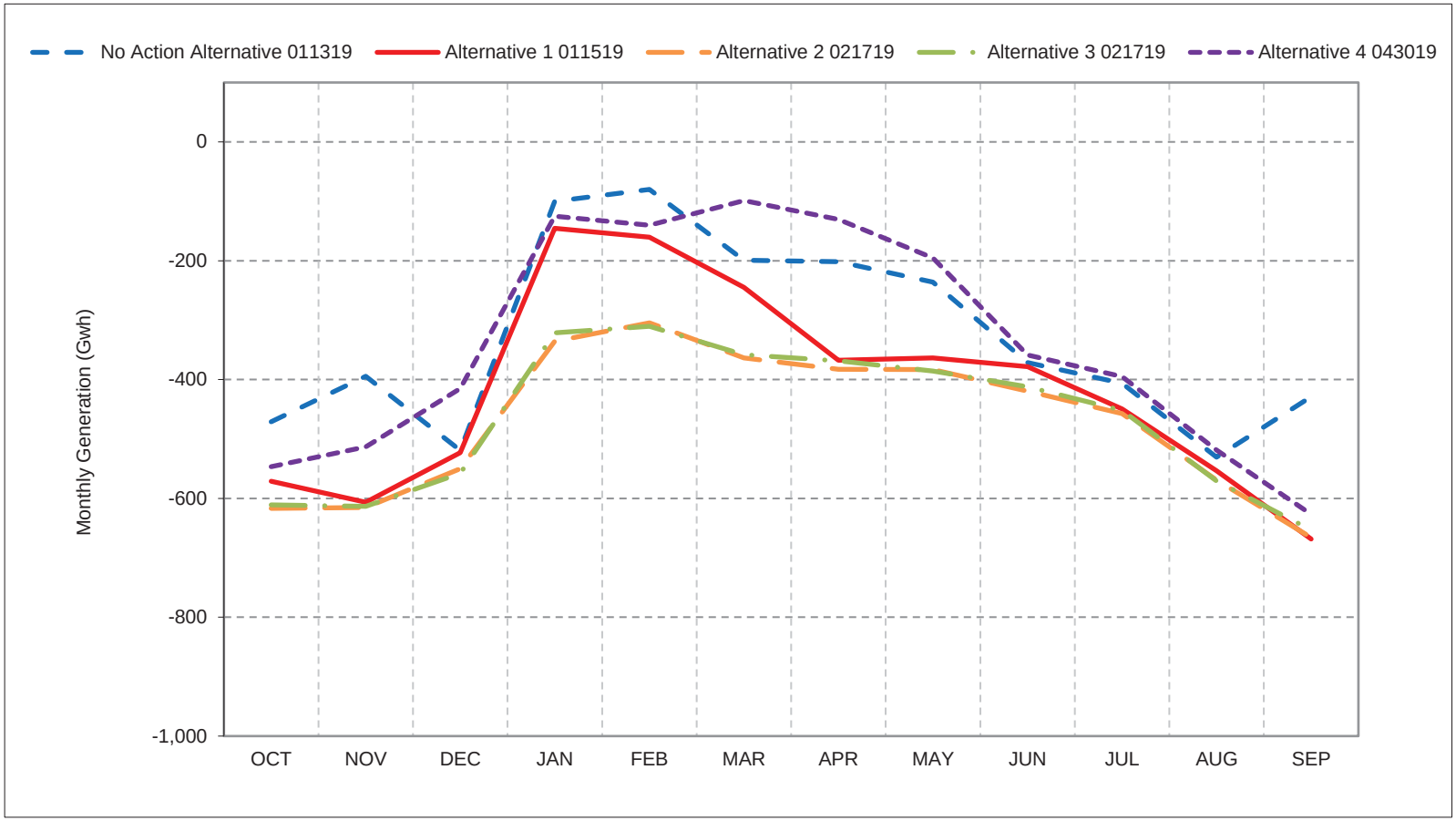
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-1. SWP Net Generation, Long-Term Average Generation



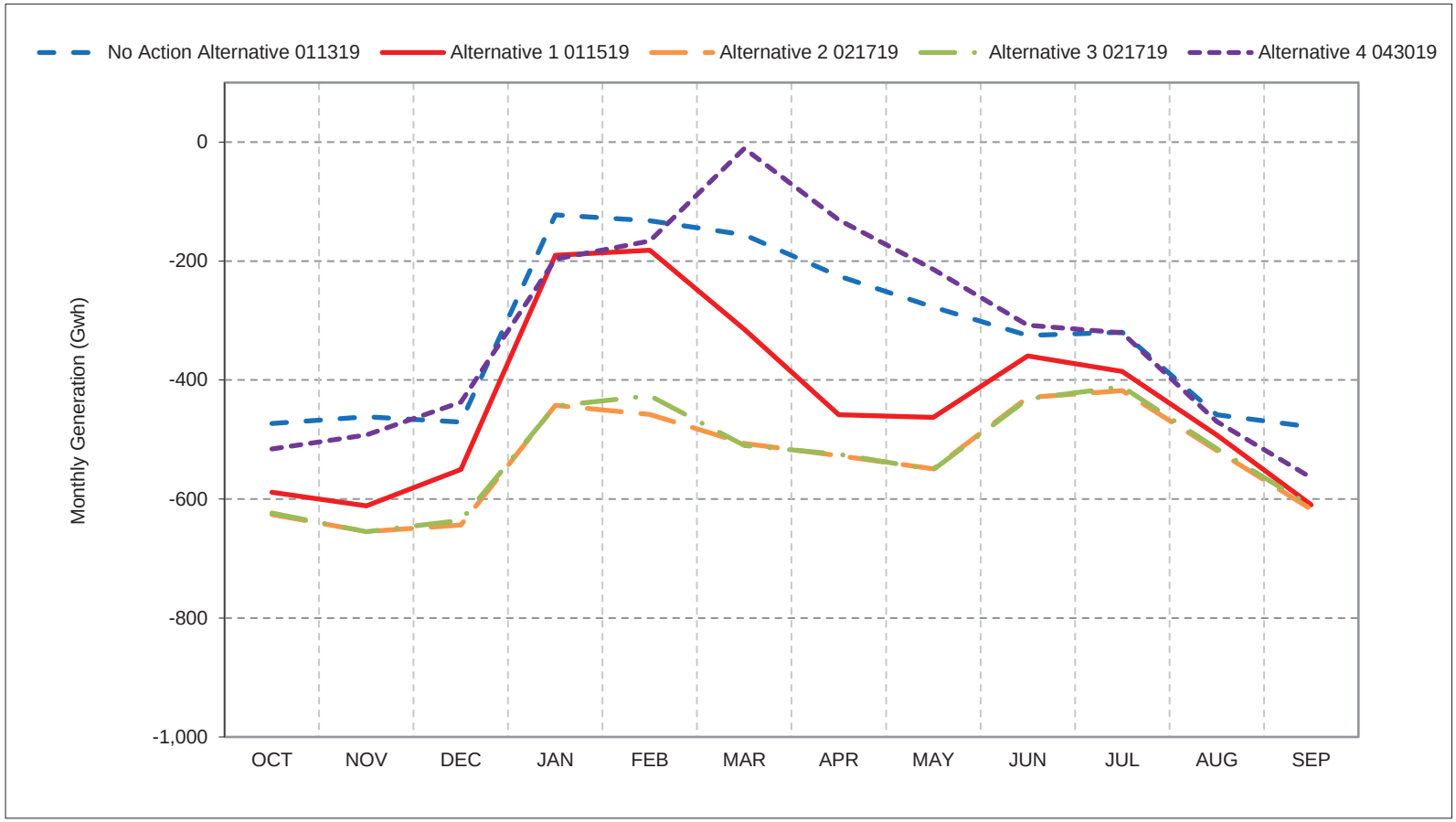
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-2. SWP Net Generation, Wet Year Average Generation



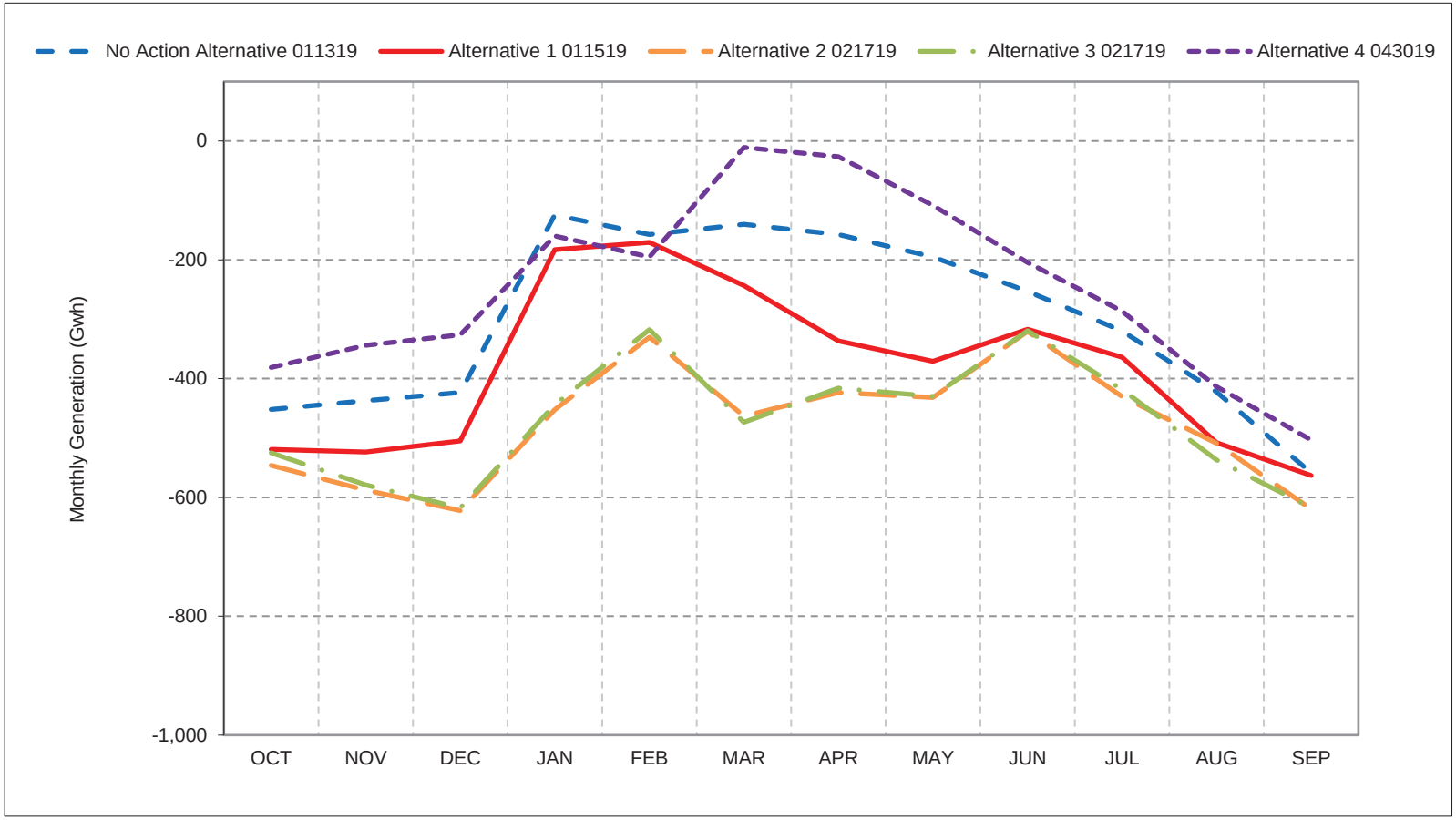
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-3. SWP Net Generation, Above Normal Year Average Generation



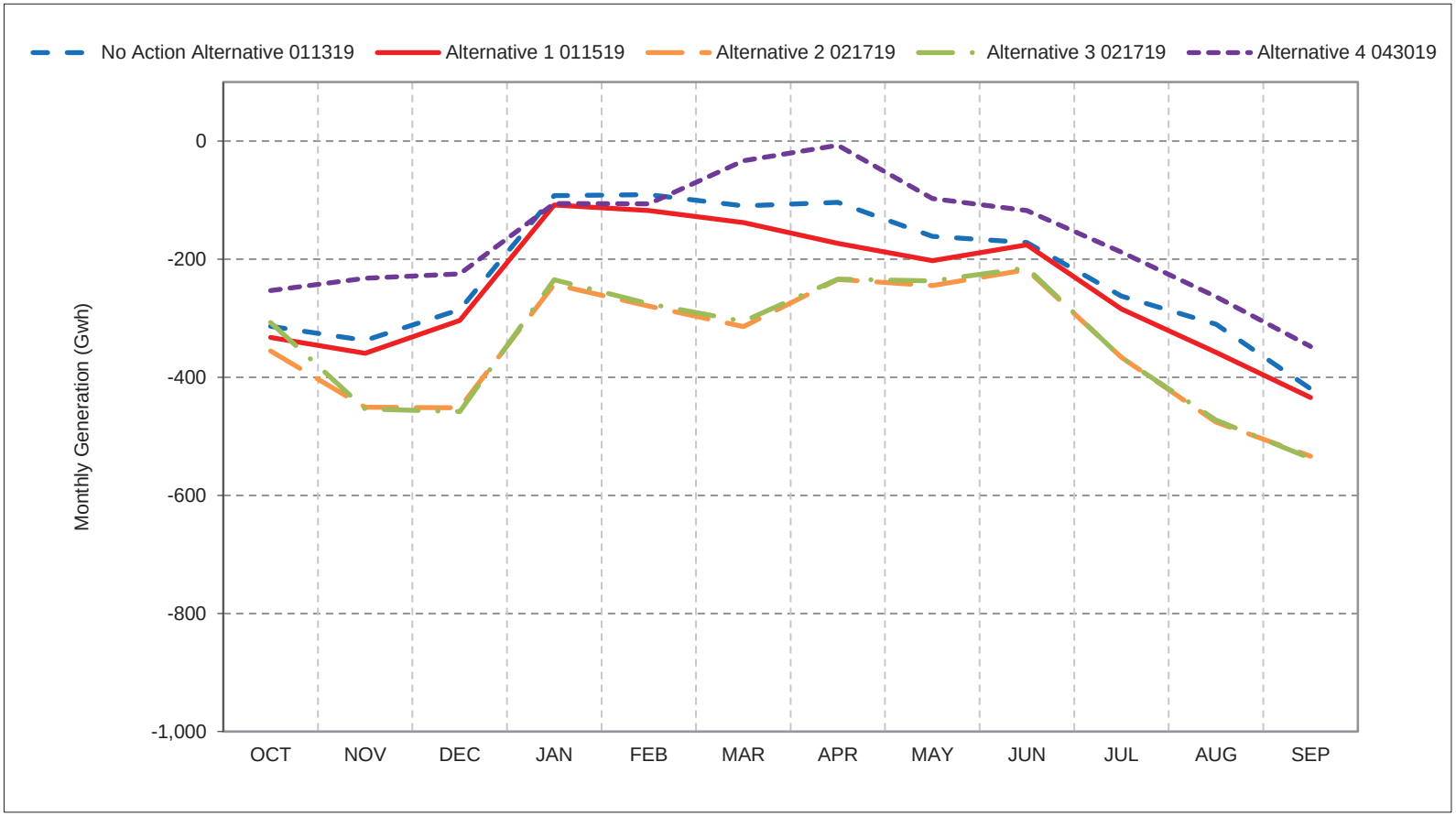
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-4. SWP Net Generation, Below Normal Year Average Generation



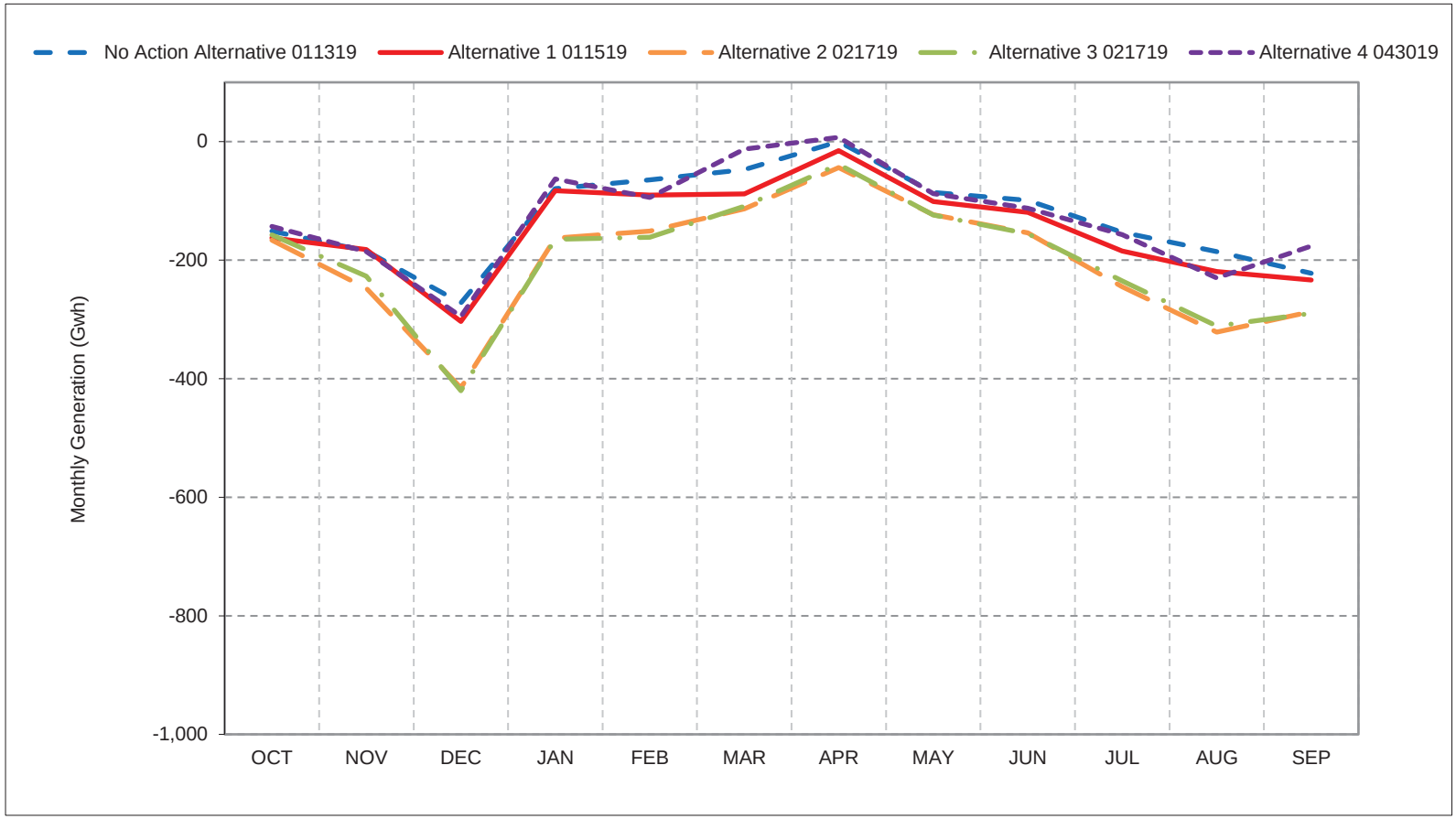
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-5. SWP Net Generation, Dry Year Average Generation



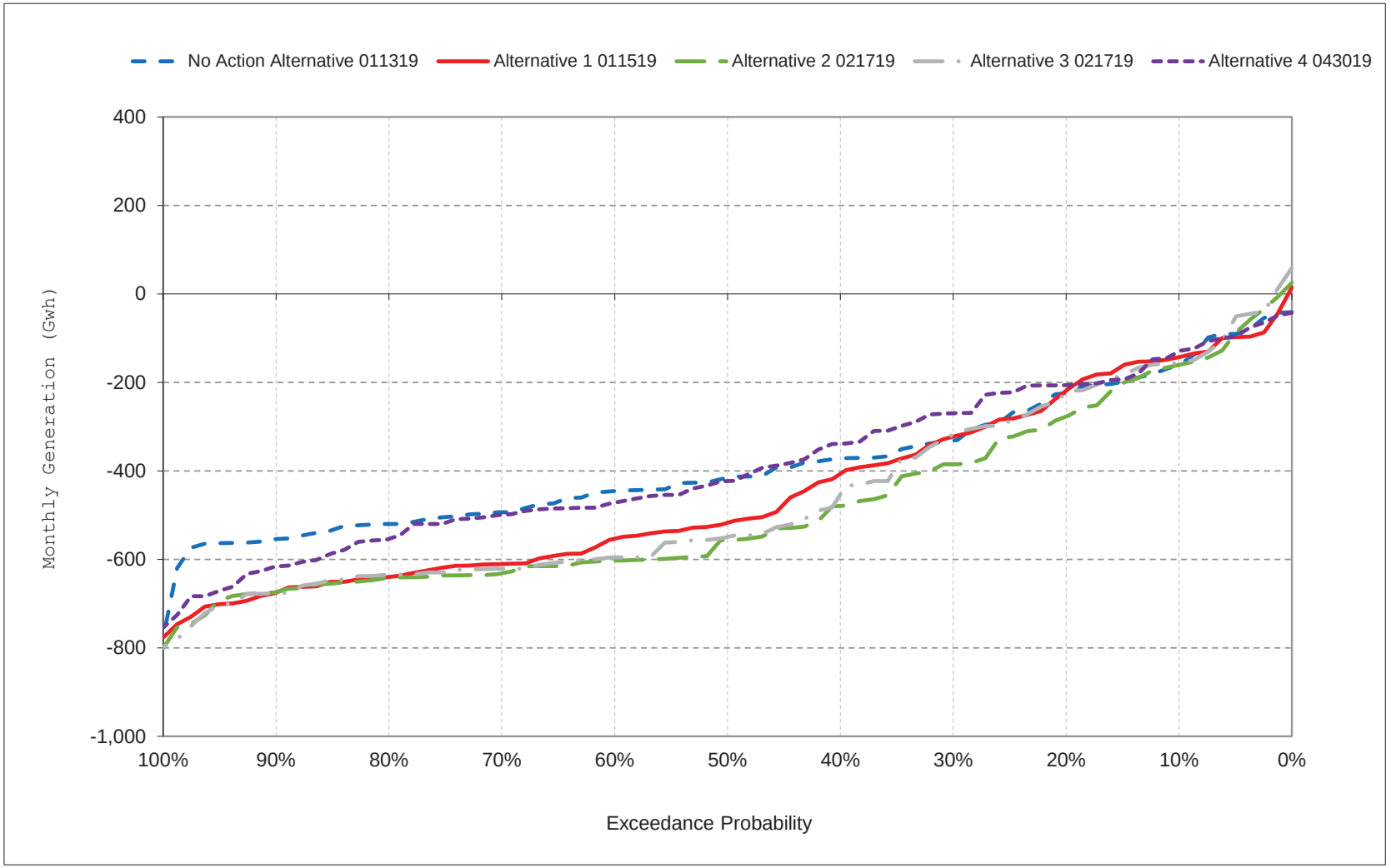
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-6. SWP Net Generation, Critical Year Average Generation



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

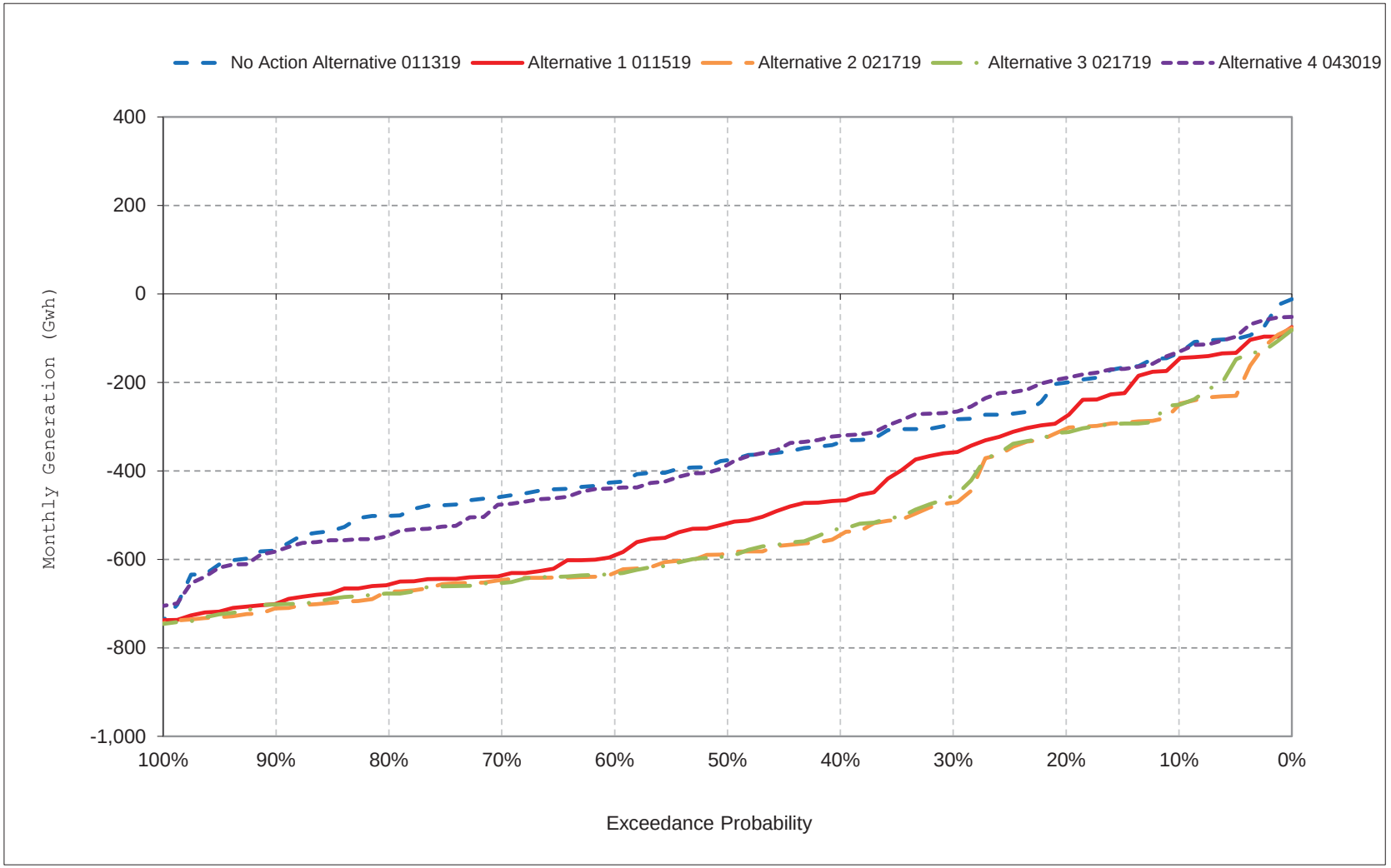
Figure 8-7. SWP Net Generation, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

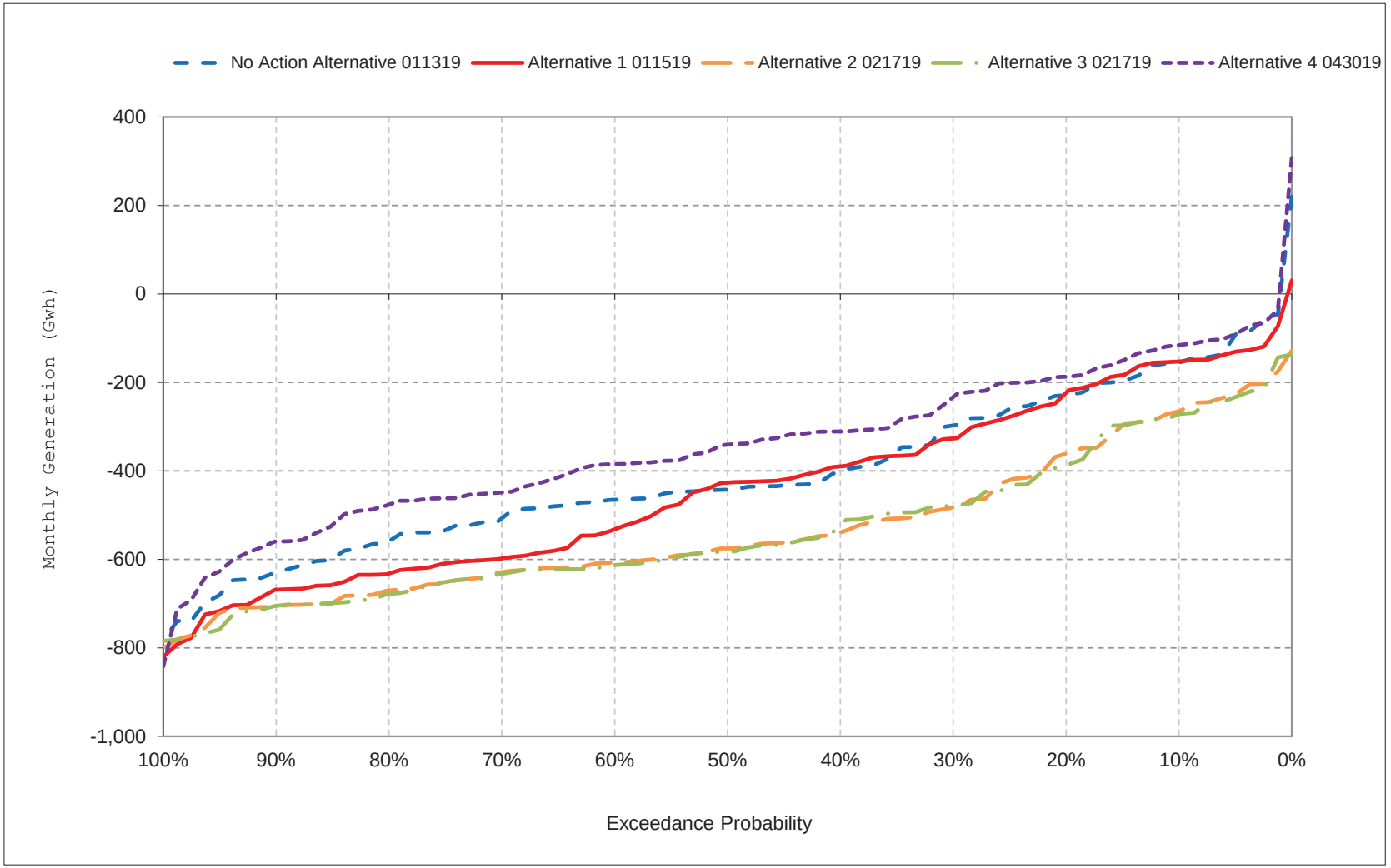
Figure 8-8. SWP Net Generation, November



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

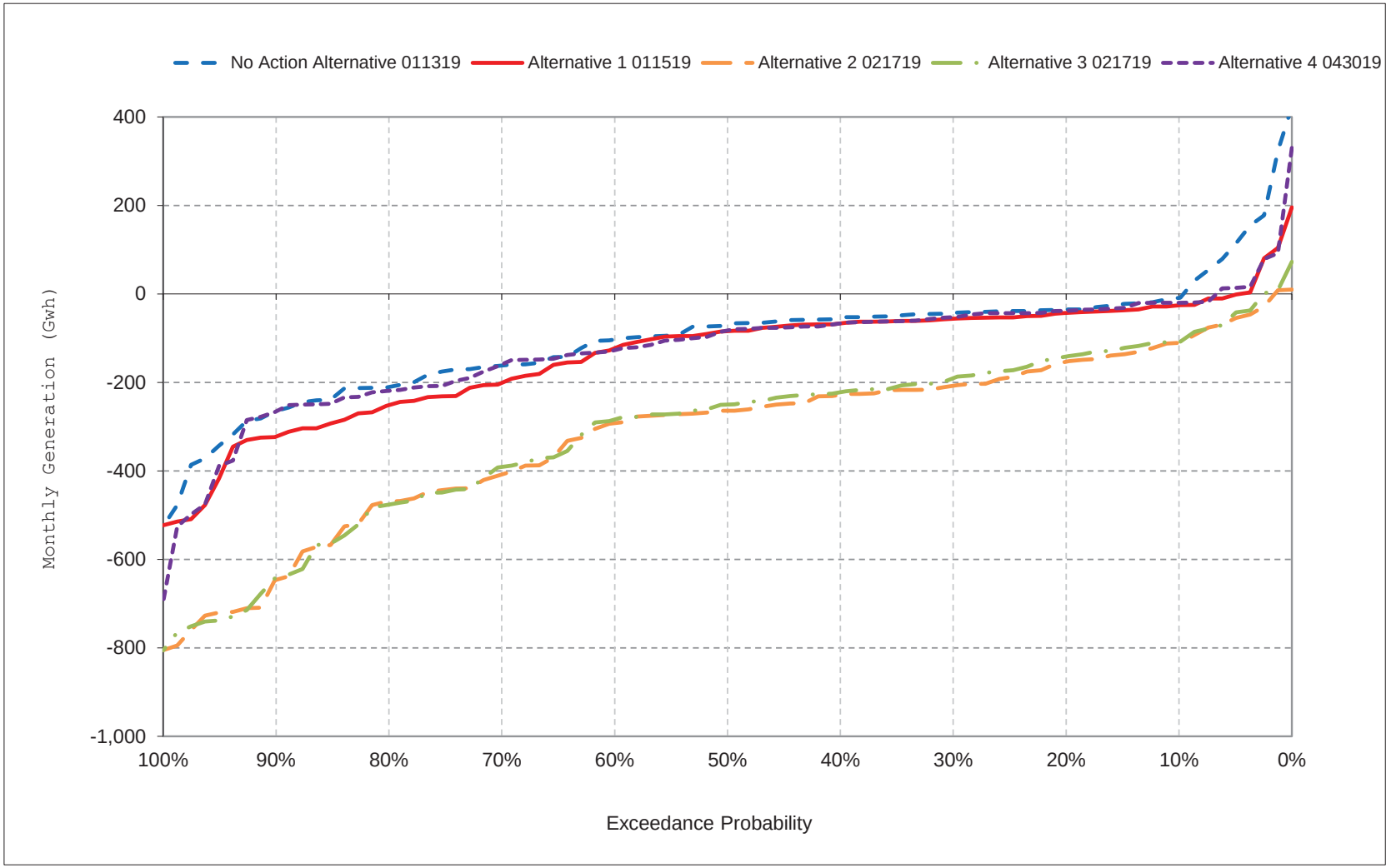
Figure 8-9. SWP Net Generation, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

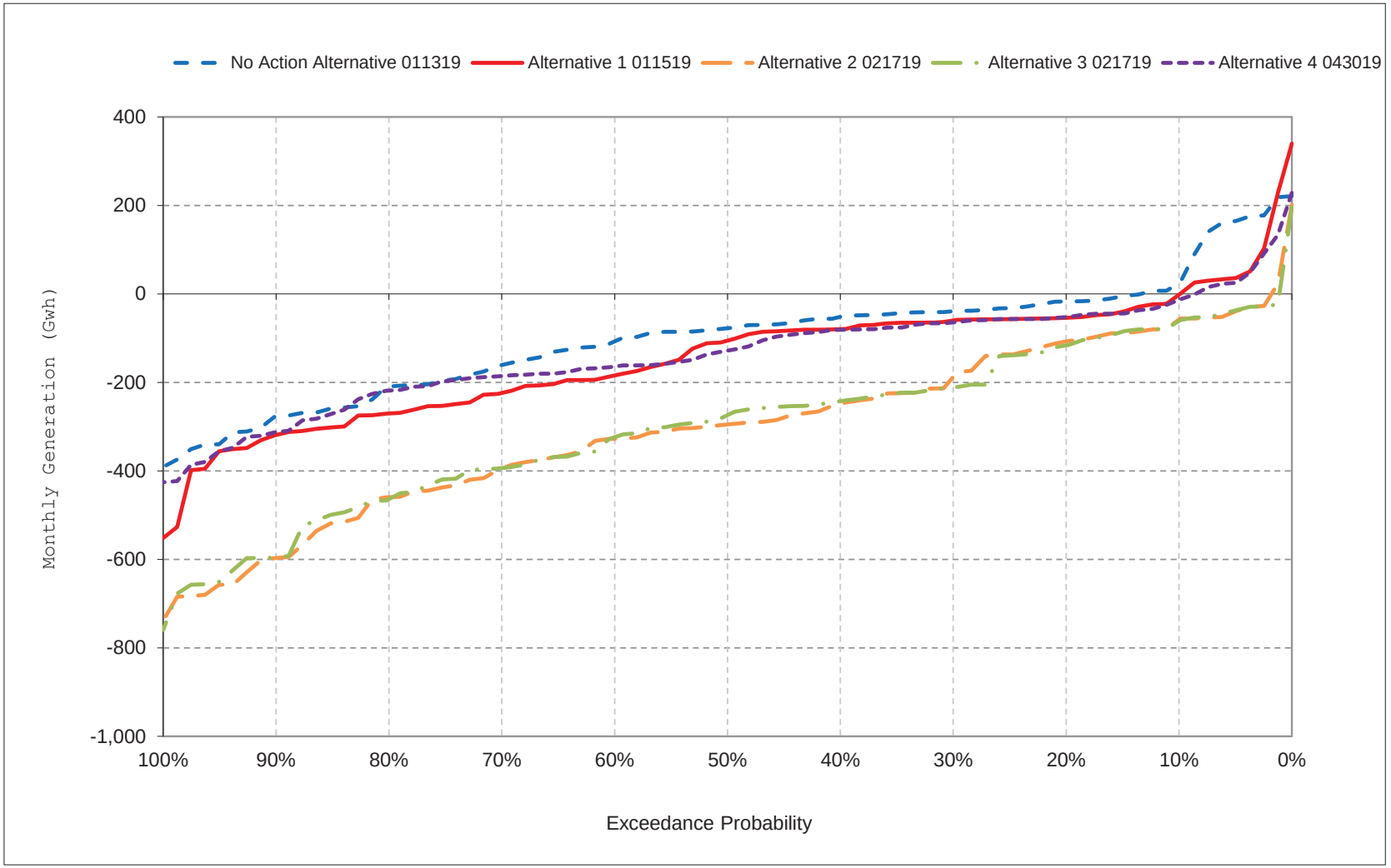
Figure 8-10. SWP Net Generation, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

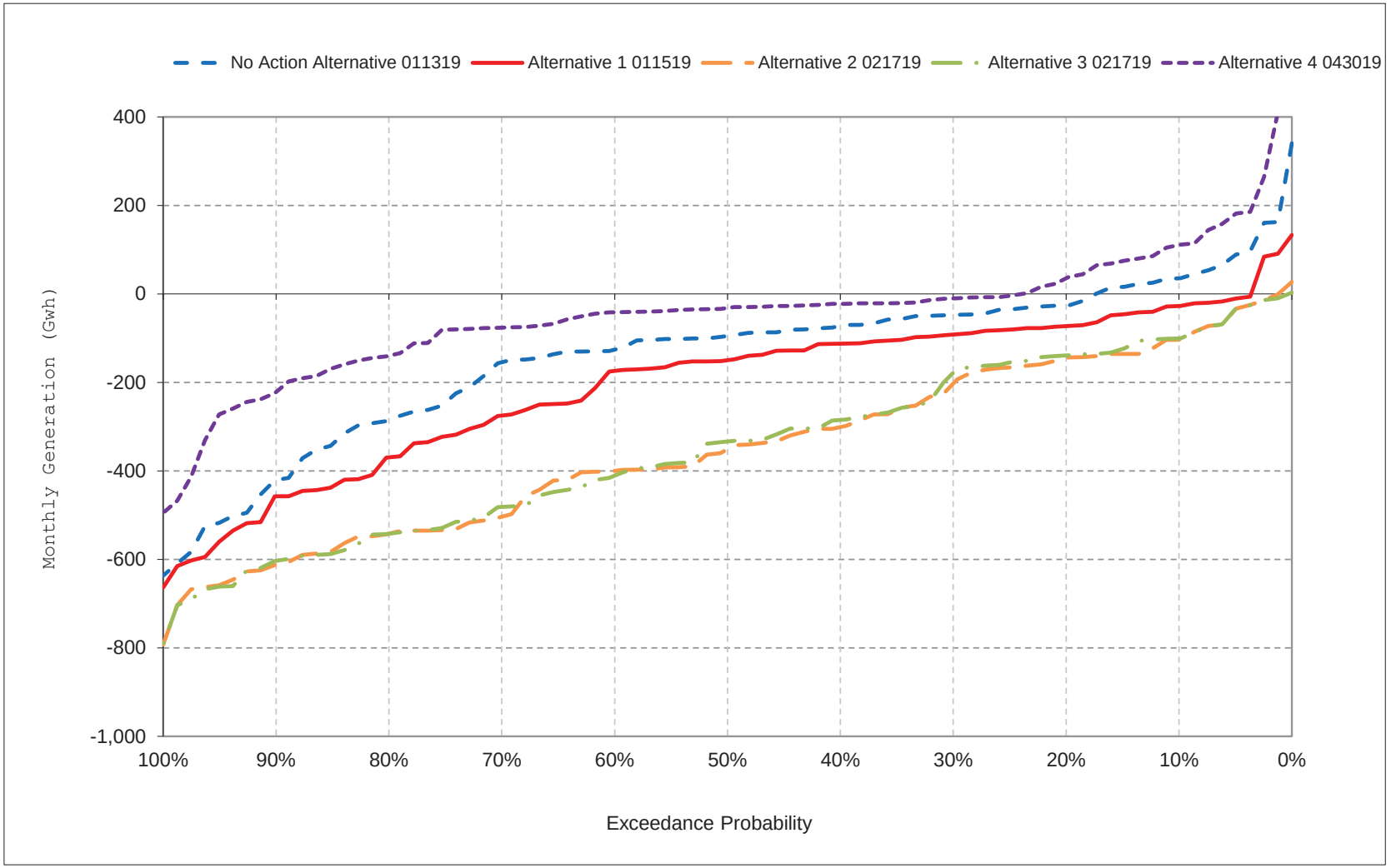
Figure 8-11. SWP Net Generation, February



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

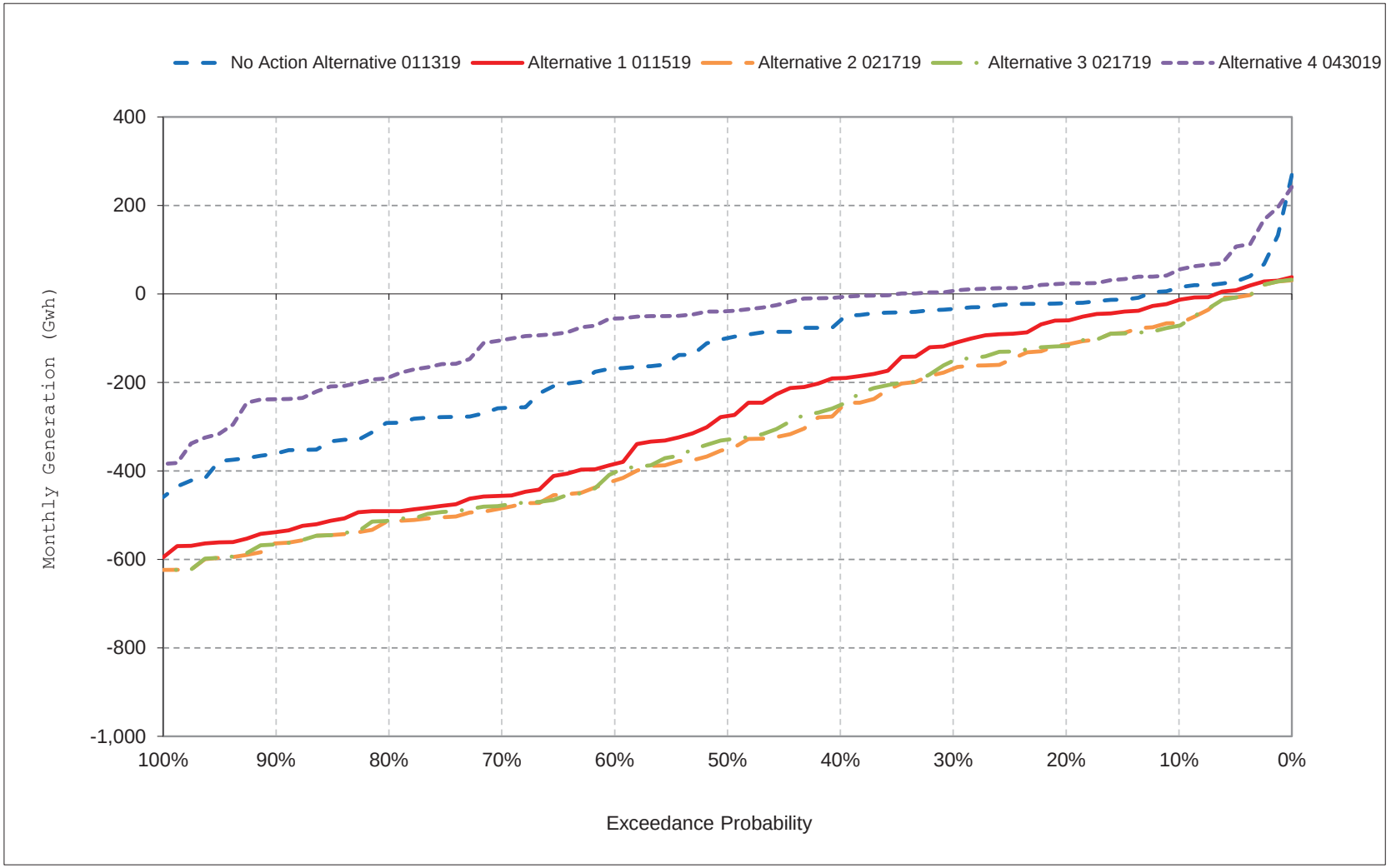
Figure 8-12. SWP Net Generation, March



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

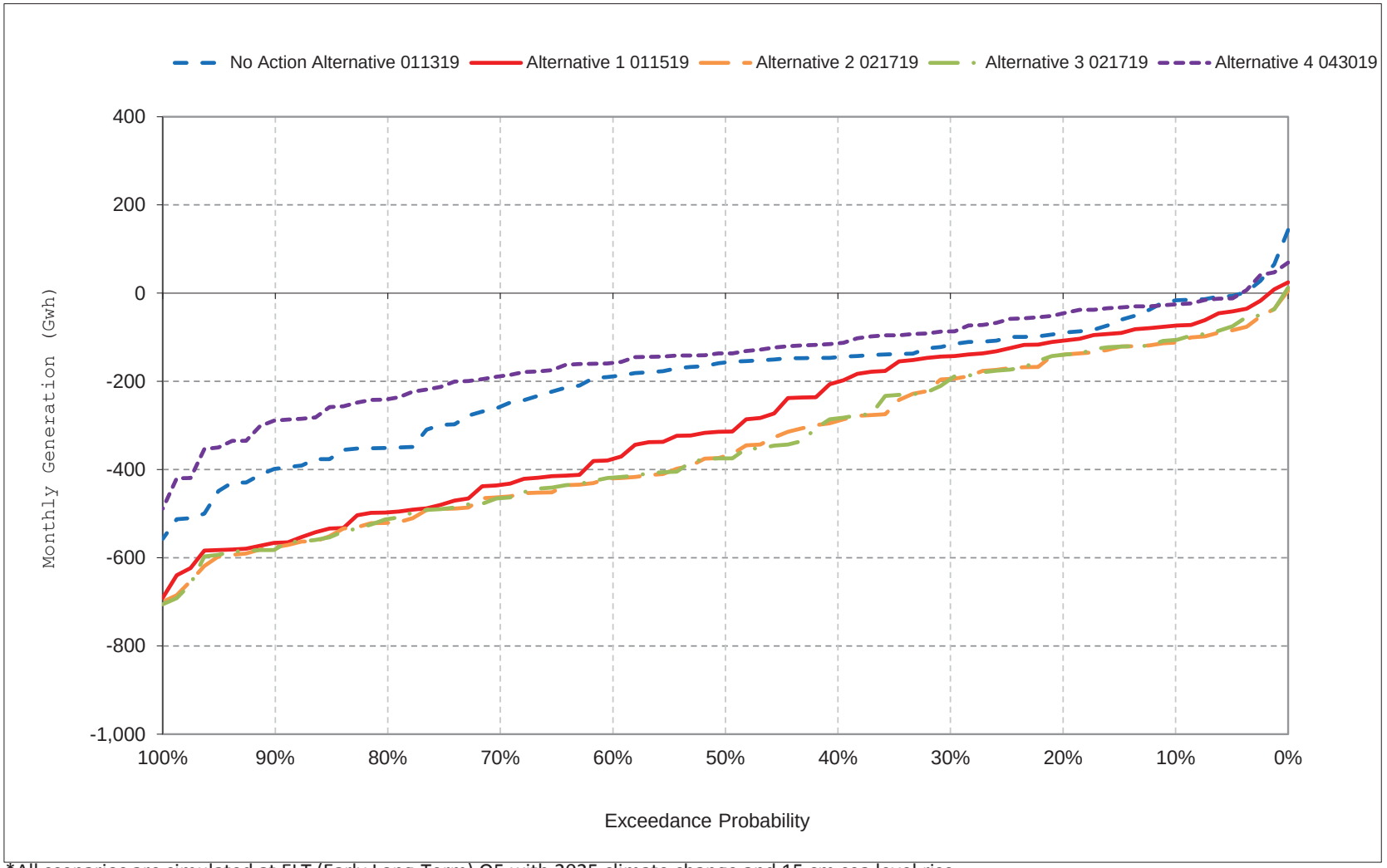
Figure 8-13. SWP Net Generation, April



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-14. SWP Net Generation, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

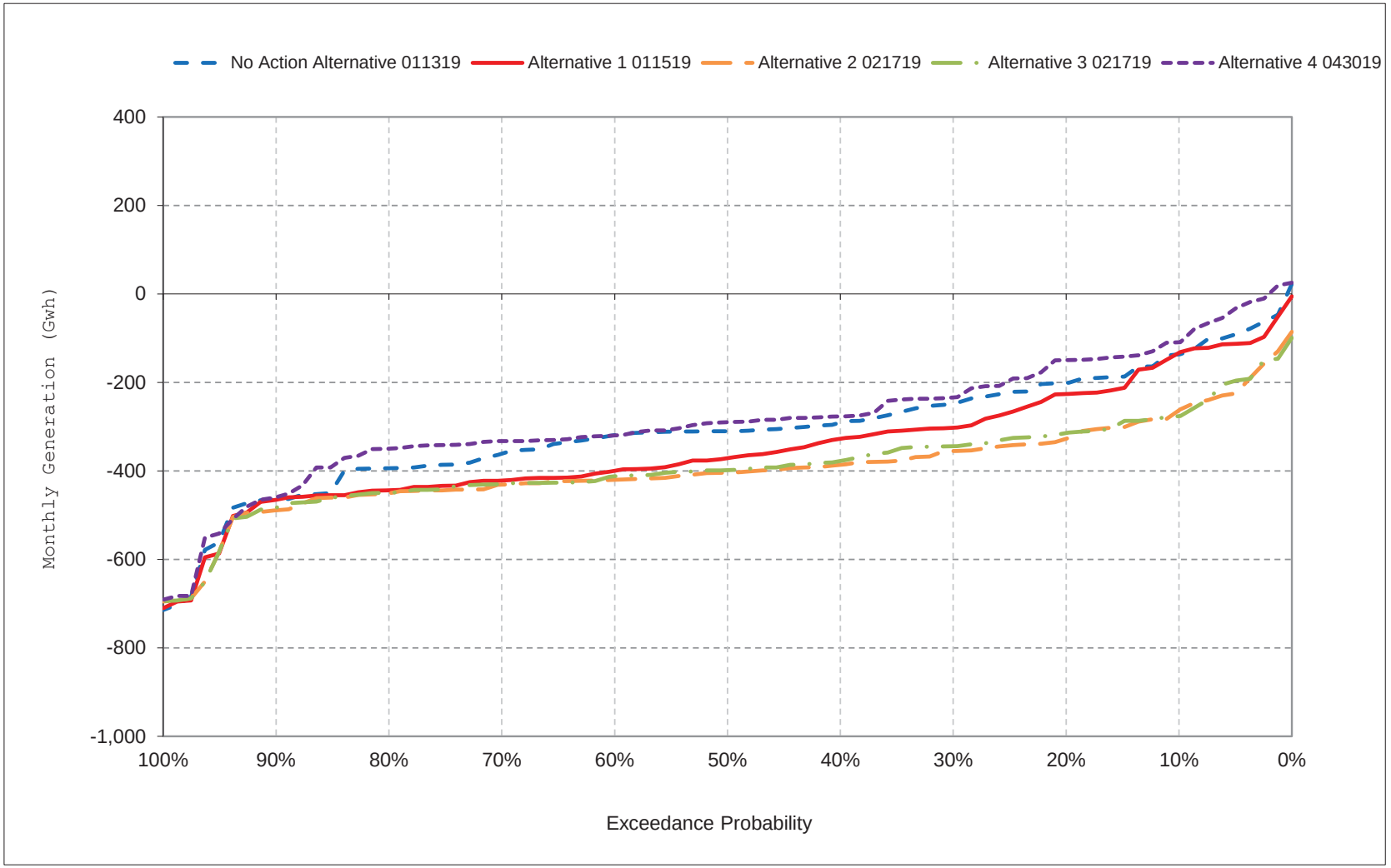
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-15. SWP Net Generation, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

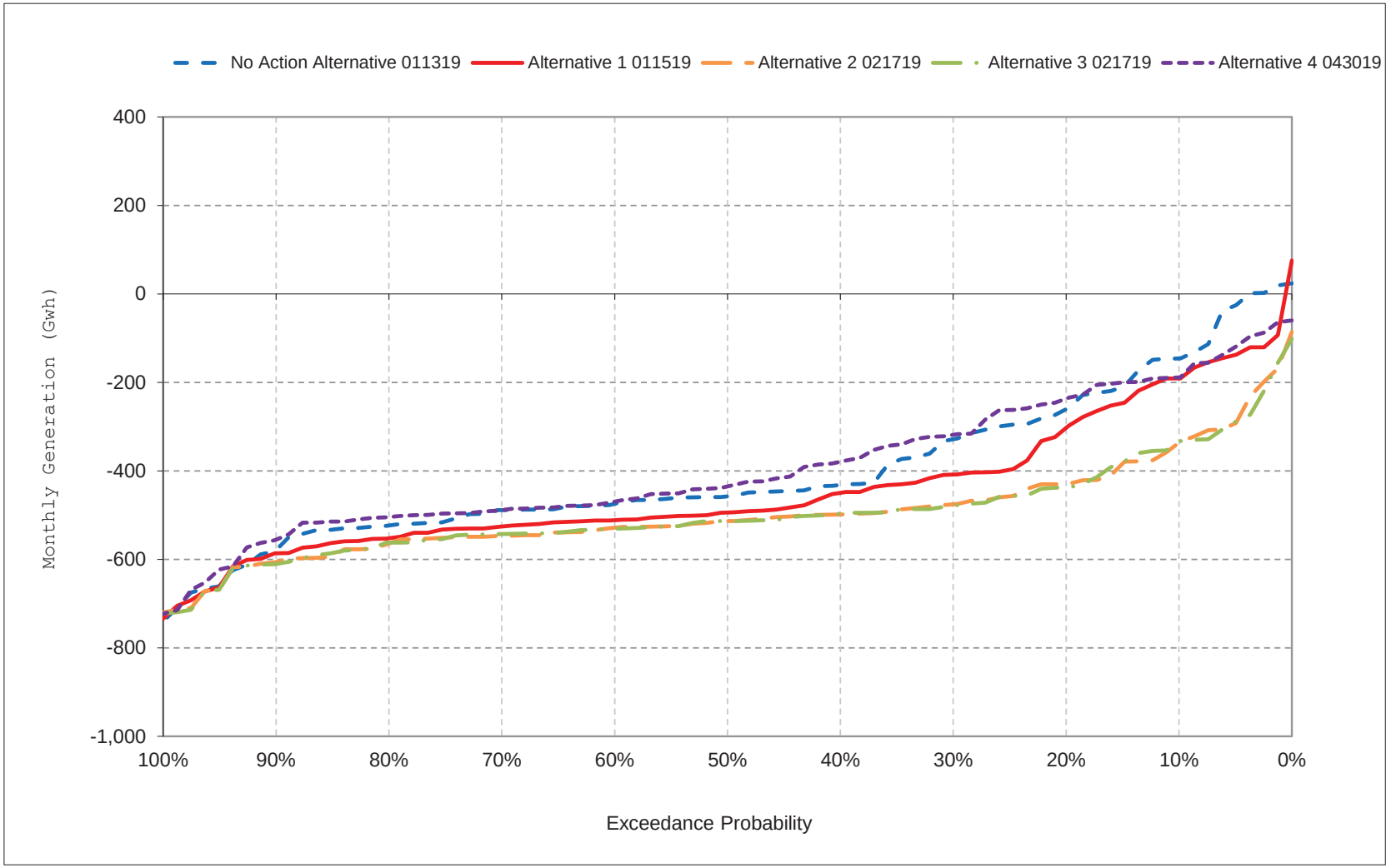
Figure 8-16. SWP Net Generation, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

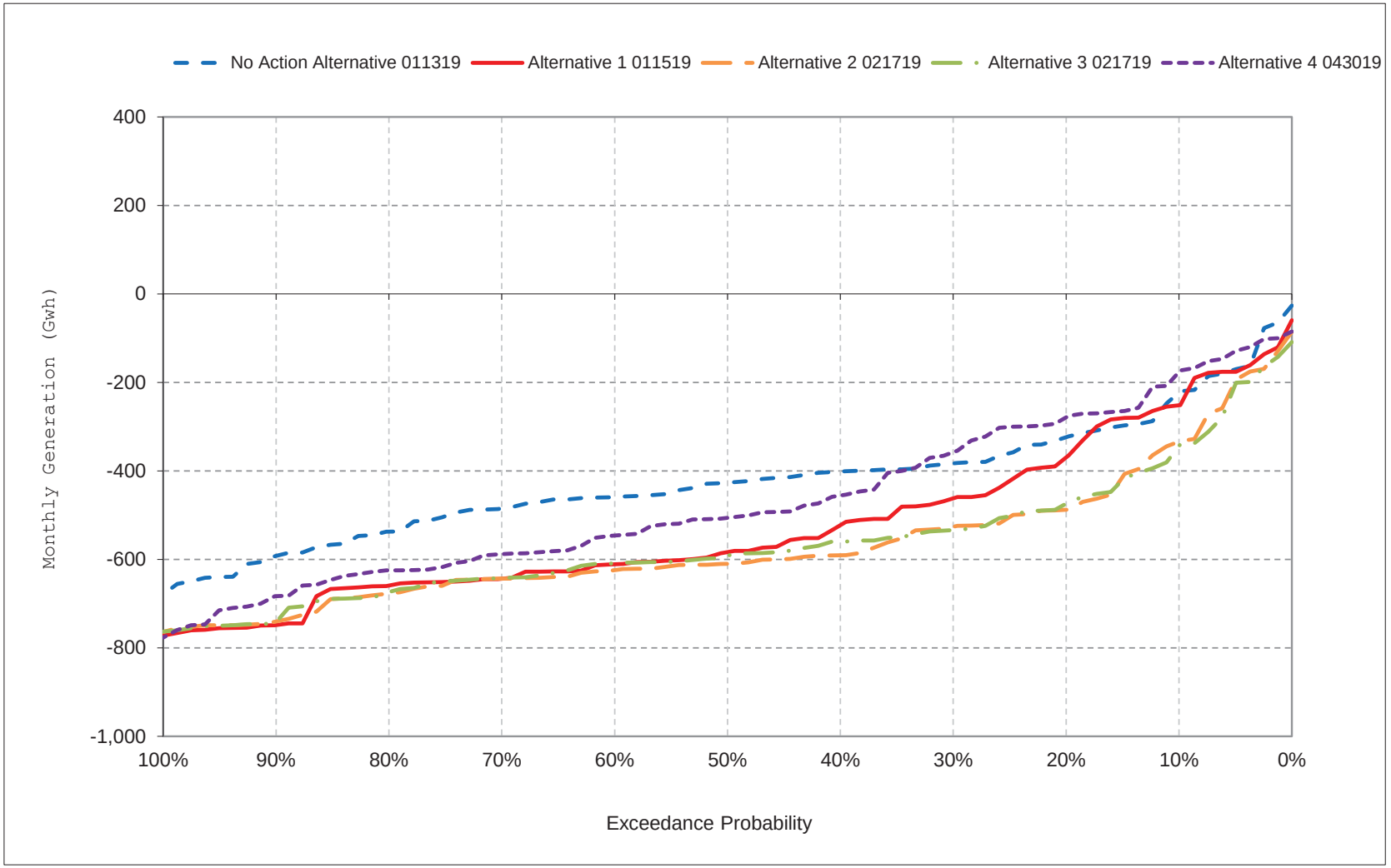
Figure 8-17. SWP Net Generation, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 8-18. SWP Net Generation, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Table 9-1. CVP and SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	26	-14	12	454	515	519	333	433	312	360	167	123
20%	-60	-85	-93	327	321	294	224	362	257	328	62	81
30%	-95	-122	-145	85	201	147	182	302	227	306	4	9
40%	-149	-169	-222	27	71	67	145	270	184	257	-46	-64
50%	-167	-207	-294	-6	21	10	125	241	133	229	-71	-132
60%	-210	-299	-384	-38	-39	-16	78	203	111	174	-104	-165
70%	-238	-329	-453	-70	-68	-68	3	150	64	118	-130	-224
80%	-292	-360	-529	-140	-132	-100	-62	62	-1	41	-160	-292
90%	-363	-403	-596	-189	-184	-252	-133	29	-79	-18	-197	-426
Long Term												
Full Simulation Period[a]	-179	-212	-274	79	102	80	118	225	137	189	-46	-122
Water Year Types[b,c]												
Wet (32%)	-178	-149	-341	322	283	228	172	287	31	117	-130	86
Above Normal (16%)	-226	-251	-366	61	183	101	61	176	84	290	-68	-130
Below Normal (13%)	-284	-337	-299	-85	-11	-56	65	239	190	229	-33	-357
Dry (24%)	-158	-236	-121	-55	-46	-28	85	205	249	208	16	-255
Critical (15%)	-69	-153	-261	-55	-27	40	166	165	190	166	46	-129

Alternative 1 011519

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	1	-71	177	494	476	509	228	315	337	353	117	-80
20%	-83	-167	-83	250	307	261	140	283	274	319	10	-161
30%	-163	-238	-136	115	193	97	93	216	249	269	-47	-247
40%	-227	-309	-228	32	46	-2	63	163	201	232	-83	-315
50%	-321	-411	-335	-22	-35	-34	-60	115	127	190	-109	-346
60%	-352	-454	-358	-47	-61	-89	-124	61	77	137	-125	-378
70%	-385	-517	-476	-66	-113	-139	-242	-4	40	73	-150	-411
80%	-444	-561	-588	-85	-174	-205	-300	-106	2	22	-181	-431
90%	-485	-589	-635	-223	-263	-305	-367	-201	-72	-28	-222	-464
Long Term												
Full Simulation Period[a]	-265	-358	-276	62	63	24	-53	87	135	164	-81	-312
Water Year Types[b,c]												
Wet (32%)	-305	-463	-295	301	229	190	-58	97	46	80	-151	-366
Above Normal (16%)	-404	-481	-375	39	162	-20	-241	-61	79	226	-97	-395
Below Normal (13%)	-354	-413	-372	-107	7	-121	-141	43	150	196	-111	-376
Dry (24%)	-183	-247	-131	-71	-98	-61	-5	152	247	207	-24	-269
Critical (15%)	-79	-134	-285	-54	-82	-14	160	157	189	175	23	-120

Alternative 1 011519 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-25	-57	165	40	-39	-10	-105	-118	25	-7	-50	-203
20%	-23	-82	10	-78	-13	-33	-84	-79	17	-9	-52	-242
30%	-68	-117	9	30	-9	-50	-90	-86	22	-37	-51	-256
40%	-77	-140	-6	5	-25	-69	-83	-106	17	-24	-37	-251
50%	-154	-205	-41	-16	-56	-45	-185	-125	-6	-39	-37	-214
60%	-142	-155	25	-9	-22	-73	-202	-143	-34	-37	-21	-214
70%	-147	-188	-23	4	-45	-71	-245	-153	-24	-45	-20	-188
80%	-152	-201	-59	55	-42	-105	-238	-168	3	-18	-21	-139
90%	-122	-186	-40	-34	-79	-53	-234	-230	7	-9	-25	-38
Long Term												
Full Simulation Period[a]	-86	-146	-3	-17	-38	-56	-171	-138	-2	-25	-35	-190
Water Year Types[b,c]												
Wet (32%)	-128	-314	47	-21	-53	-38	-230	-190	15	-37	-21	-452
Above Normal (16%)	-178	-230	-9	-22	-21	-121	-302	-237	-4	-64	-28	-265
Below Normal (13%)	-70	-76	-74	-21	19	-65	-206	-196	-40	-32	-79	-19
Dry (24%)	-25	-11	-10	-15	-52	-33	-90	-53	-2	-2	-40	-14
Critical (15%)	-10	20	-24	1	-55	-53	-7	-8	-2	10	-23	8

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 9-2. CVP and SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	26	-14	12	454	515	519	333	433	312	360	167	123
20%	-60	-85	-93	327	321	294	224	362	257	328	62	81
30%	-95	-122	-145	85	201	147	182	302	227	306	4	9
40%	-149	-169	-222	27	71	67	145	270	184	257	-46	-64
50%	-167	-207	-294	-6	21	10	125	241	133	229	-71	-132
60%	-210	-299	-384	-38	-39	-16	78	203	111	174	-104	-165
70%	-238	-329	-453	-70	-68	-68	3	150	64	118	-130	-224
80%	-292	-360	-529	-140	-132	-100	-62	62	-1	41	-160	-292
90%	-363	-403	-596	-189	-184	-252	-133	29	-79	-18	-197	-426
Long Term												
Full Simulation Period[a]	-179	-212	-274	79	102	80	118	225	137	189	-46	-122
Water Year Types[b,c]												
Wet (32%)	-178	-149	-341	322	283	228	172	287	31	117	-130	86
Above Normal (16%)	-226	-251	-366	61	183	101	61	176	84	290	-68	-130
Below Normal (13%)	-284	-337	-299	-85	-11	-56	65	239	190	229	-33	-357
Dry (24%)	-158	-236	-121	-55	-46	-28	85	205	249	208	16	-255
Critical (15%)	-69	-153	-261	-55	-27	40	166	165	190	166	46	-129

Alternative 2 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-39	-154	-13	277	386	290	193	313	352	255	-6	-134
20%	-117	-219	-222	48	139	133	87	226	280	228	-52	-254
30%	-225	-309	-328	-56	-25	18	40	161	232	207	-79	-313
40%	-283	-452	-436	-156	-102	-98	-44	128	189	173	-99	-338
50%	-338	-492	-492	-187	-173	-160	-115	79	115	143	-119	-367
60%	-379	-532	-532	-227	-239	-282	-224	33	92	100	-146	-402
70%	-412	-555	-584	-274	-300	-341	-276	-84	35	71	-171	-424
80%	-482	-578	-610	-367	-386	-406	-344	-117	-35	26	-200	-445
90%	-507	-629	-667	-476	-449	-513	-411	-232	-120	-20	-240	-484
Long Term												
Full Simulation Period[a]	-299	-424	-398	-135	-103	-134	-100	51	125	120	-120	-345
Water Year Types[b,c]												
Wet (32%)	-374	-484	-336	89	92	66	-65	83	29	82	-152	-360
Above Normal (16%)	-453	-538	-536	-247	-133	-239	-319	-151	64	190	-105	-400
Below Normal (13%)	-366	-497	-526	-386	-163	-346	-240	-8	187	122	-100	-397
Dry (24%)	-195	-357	-304	-217	-278	-266	-66	126	232	132	-136	-361
Critical (15%)	-83	-213	-423	-131	-149	-38	136	131	163	105	-61	-179

Alternative 2 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-65	-140	-24	-177	-129	-230	-140	-120	40	-106	-173	-257
20%	-57	-135	-129	-279	-181	-161	-137	-135	23	-100	-114	-335
30%	-130	-187	-183	-141	-226	-130	-143	-141	6	-98	-83	-322
40%	-134	-283	-214	-183	-173	-165	-189	-142	5	-84	-53	-274
50%	-171	-285	-198	-181	-194	-170	-239	-161	-17	-86	-48	-236
60%	-169	-234	-148	-190	-199	-266	-302	-171	-19	-73	-42	-238
70%	-174	-225	-131	-203	-232	-272	-279	-234	-29	-46	-41	-201
80%	-190	-218	-81	-227	-254	-306	-282	-179	-34	-15	-40	-152
90%	-144	-226	-72	-287	-265	-261	-278	-261	-41	-2	-44	-58
Long Term												
Full Simulation Period[a]	-120	-211	-124	-214	-205	-214	-218	-174	-12	-69	-75	-222
Water Year Types[b,c]												
Wet (32%)	-197	-334	5	-233	-191	-162	-237	-204	-2	-35	-22	-445
Above Normal (16%)	-227	-287	-170	-308	-316	-340	-381	-328	-19	-100	-36	-270
Below Normal (13%)	-82	-160	-228	-300	-152	-290	-305	-247	-3	-107	-67	-40
Dry (24%)	-37	-121	-182	-162	-232	-237	-151	-79	-17	-76	-153	-105
Critical (15%)	-15	-60	-163	-76	-122	-78	-31	-34	-27	-61	-107	-50

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 9-3. CVP and SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	26	-14	12	454	515	519	333	433	312	360	167	123
20%	-60	-85	-93	327	321	294	224	362	257	328	62	81
30%	-95	-122	-145	85	201	147	182	302	227	306	4	9
40%	-149	-169	-222	27	71	67	145	270	184	257	-46	-64
50%	-167	-207	-294	-6	21	10	125	241	133	229	-71	-132
60%	-210	-299	-384	-38	-39	-16	78	203	111	174	-104	-165
70%	-238	-329	-453	-70	-68	-68	3	150	64	118	-130	-224
80%	-292	-360	-529	-140	-132	-100	-62	62	-1	41	-160	-292
90%	-363	-403	-596	-189	-184	-252	-133	29	-79	-18	-197	-426
Long Term												
Full Simulation Period[a]	-179	-212	-274	79	102	80	118	225	137	189	-46	-122
Water Year Types[b,c]												
Wet (32%)	-178	-149	-341	322	283	228	172	287	31	117	-130	86
Above Normal (16%)	-226	-251	-366	61	183	101	61	176	84	290	-68	-130
Below Normal (13%)	-284	-337	-299	-85	-11	-56	65	239	190	229	-33	-357
Dry (24%)	-158	-236	-121	-55	-46	-28	85	205	249	208	16	-255
Critical (15%)	-69	-153	-261	-55	-27	40	166	165	190	166	46	-129

Alternative 3 021719

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-4	-158	-23	313	378	296	192	313	345	279	-18	-137
20%	-68	-225	-234	22	137	136	94	220	273	246	-58	-254
30%	-166	-294	-319	-65	-12	22	40	155	244	206	-78	-297
40%	-258	-413	-391	-132	-100	-96	-27	127	192	186	-103	-335
50%	-334	-478	-476	-190	-171	-152	-77	72	137	135	-119	-353
60%	-368	-532	-533	-222	-237	-254	-190	17	87	107	-143	-398
70%	-399	-567	-584	-244	-277	-330	-273	-74	29	76	-170	-420
80%	-448	-593	-613	-364	-385	-420	-344	-108	-17	26	-199	-440
90%	-482	-628	-677	-470	-462	-506	-400	-236	-120	-23	-239	-481
Long Term												
Full Simulation Period[a]	-271	-419	-398	-129	-102	-130	-91	51	124	127	-123	-343
Water Year Types[b,c]												
Wet (32%)	-361	-479	-339	105	83	66	-48	75	35	85	-153	-351
Above Normal (16%)	-452	-538	-513	-255	-119	-230	-320	-152	52	207	-107	-395
Below Normal (13%)	-321	-486	-521	-383	-144	-358	-230	-4	185	139	-129	-397
Dry (24%)	-128	-365	-313	-213	-272	-252	-64	134	234	131	-133	-364
Critical (15%)	-68	-189	-429	-126	-165	-35	143	132	155	112	-53	-182

Alternative 3 021719 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-30	-145	-35	-141	-137	-223	-141	-120	34	-82	-185	-260
20%	-8	-140	-141	-305	-184	-159	-130	-142	16	-82	-120	-335
30%	-70	-172	-174	-150	-213	-125	-142	-147	18	-100	-82	-306
40%	-109	-244	-168	-159	-171	-163	-173	-143	8	-71	-57	-271
50%	-167	-271	-182	-184	-192	-162	-202	-169	4	-94	-48	-221
60%	-158	-234	-150	-185	-197	-238	-268	-186	-24	-67	-40	-234
70%	-161	-238	-131	-174	-210	-262	-276	-224	-35	-42	-40	-196
80%	-157	-233	-84	-224	-253	-320	-282	-170	-17	-14	-39	-147
90%	-119	-225	-82	-280	-278	-253	-267	-266	-41	-5	-42	-55
Long Term												
Full Simulation Period[a]	-92	-207	-124	-208	-204	-210	-209	-174	-13	-62	-77	-220
Water Year Types[b,c]												
Wet (32%)	-184	-329	2	-217	-199	-162	-220	-212	4	-32	-22	-437
Above Normal (16%)	-225	-287	-148	-316	-302	-331	-381	-328	-31	-83	-39	-265
Below Normal (13%)	-37	-148	-222	-298	-132	-301	-296	-243	-5	-89	-96	-40
Dry (24%)	29	-129	-192	-157	-226	-223	-148	-71	-15	-77	-150	-108
Critical (15%)	1	-36	-169	-71	-138	-75	-24	-33	-35	-54	-99	-53

a Based on the 82-year simulation period.

b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

e These are draft results meant for qualitative analysis and are subject to revision.

Table 9-4. CVP and SWP Net Generation, Monthly Generation

No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	26	-14	12	454	515	519	333	433	312	360	167	123
20%	-60	-85	-93	327	321	294	224	362	257	328	62	81
30%	-95	-122	-145	85	201	147	182	302	227	306	4	9
40%	-149	-169	-222	27	71	67	145	270	184	257	-46	-64
50%	-167	-207	-294	-6	21	10	125	241	133	229	-71	-132
60%	-210	-299	-384	-38	-39	-16	78	203	111	174	-104	-165
70%	-238	-329	-453	-70	-68	-68	3	150	64	118	-130	-224
80%	-292	-360	-529	-140	-132	-100	-62	62	-1	41	-160	-292
90%	-363	-403	-596	-189	-184	-252	-133	29	-79	-18	-197	-426
Long Term												
Full Simulation Period[a]	-179	-212	-274	79	102	80	118	225	137	189	-46	-122
Water Year Types[b,c]												
Wet (32%)	-178	-149	-341	322	283	228	172	287	31	117	-130	86
Above Normal (16%)	-226	-251	-366	61	183	101	61	176	84	290	-68	-130
Below Normal (13%)	-284	-337	-299	-85	-11	-56	65	239	190	229	-33	-357
Dry (24%)	-158	-236	-121	-55	-46	-28	85	205	249	208	16	-255
Critical (15%)	-69	-153	-261	-55	-27	40	166	165	190	166	46	-129

Alternative 4 043019

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	17	-36	169	396	479	641	378	450	369	423	179	-38
20%	-60	-73	41	268	269	422	278	358	299	371	79	-123
30%	-96	-151	-87	111	194	297	228	327	242	332	23	-173
40%	-154	-196	-167	64	38	230	217	300	188	288	-4	-231
50%	-214	-284	-222	-11	-25	178	193	274	151	272	-35	-272
60%	-266	-334	-285	-44	-43	141	172	258	125	226	-54	-298
70%	-318	-367	-336	-74	-64	110	131	228	94	165	-110	-327
80%	-349	-429	-426	-145	-125	68	109	181	60	113	-147	-371
90%	-415	-468	-476	-209	-184	33	42	122	-25	4	-176	-429
Long Term												
Full Simulation Period[a]	-203	-257	-182	66	75	260	210	276	168	235	-24	-252
Water Year Types[b,c]												
Wet (32%)	-297	-373	-192	307	239	383	237	305	59	140	-111	-332
Above Normal (16%)	-328	-355	-270	3	181	373	175	240	105	317	-60	-333
Below Normal (13%)	-213	-233	-196	-80	-25	212	214	324	234	293	-20	-315
Dry (24%)	-92	-126	-52	-69	-70	141	205	285	293	293	80	-174
Critical (15%)	-42	-139	-267	-32	-62	112	193	193	202	199	27	-62

Alternative 4 043019 minus No Action Alternative 011319

	Monthly Generation (GWh)											
Statistic	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Probability of Exceedance												
10%	-10	-22	157	-58	-37	121	45	17	57	62	12	-161
20%	0	12	134	-59	-52	127	54	-4	42	44	17	-204
30%	-1	-29	58	26	-7	150	45	24	15	27	19	-181
40%	-5	-27	55	37	-33	163	71	30	5	31	42	-167
50%	-47	-77	72	-5	-45	168	68	34	19	43	36	-141
60%	-56	-35	99	-7	-4	156	94	55	14	53	49	-133
70%	-80	-37	117	-3	4	178	129	78	30	48	20	-103
80%	-58	-69	103	-5	7	169	171	119	60	72	13	-78
90%	-52	-65	120	-19	0	285	175	92	54	22	20	-3
Long Term												
Full Simulation Period[a]	-24	-44	92	-13	-27	180	92	51	31	46	22	-129
Water Year Types[b,c]												
Wet (32%)	-119	-223	149	-15	-43	154	65	18	28	23	19	-418
Above Normal (16%)	-102	-104	96	-57	-2	272	114	64	21	27	8	-203
Below Normal (13%)	71	104	103	6	-14	268	148	85	44	64	12	42
Dry (24%)	66	110	69	-13	-24	169	120	80	43	84	63	81
Critical (15%)	27	14	-6	23	-35	72	27	27	11	34	-19	67

a Based on the 82-year simulation period.

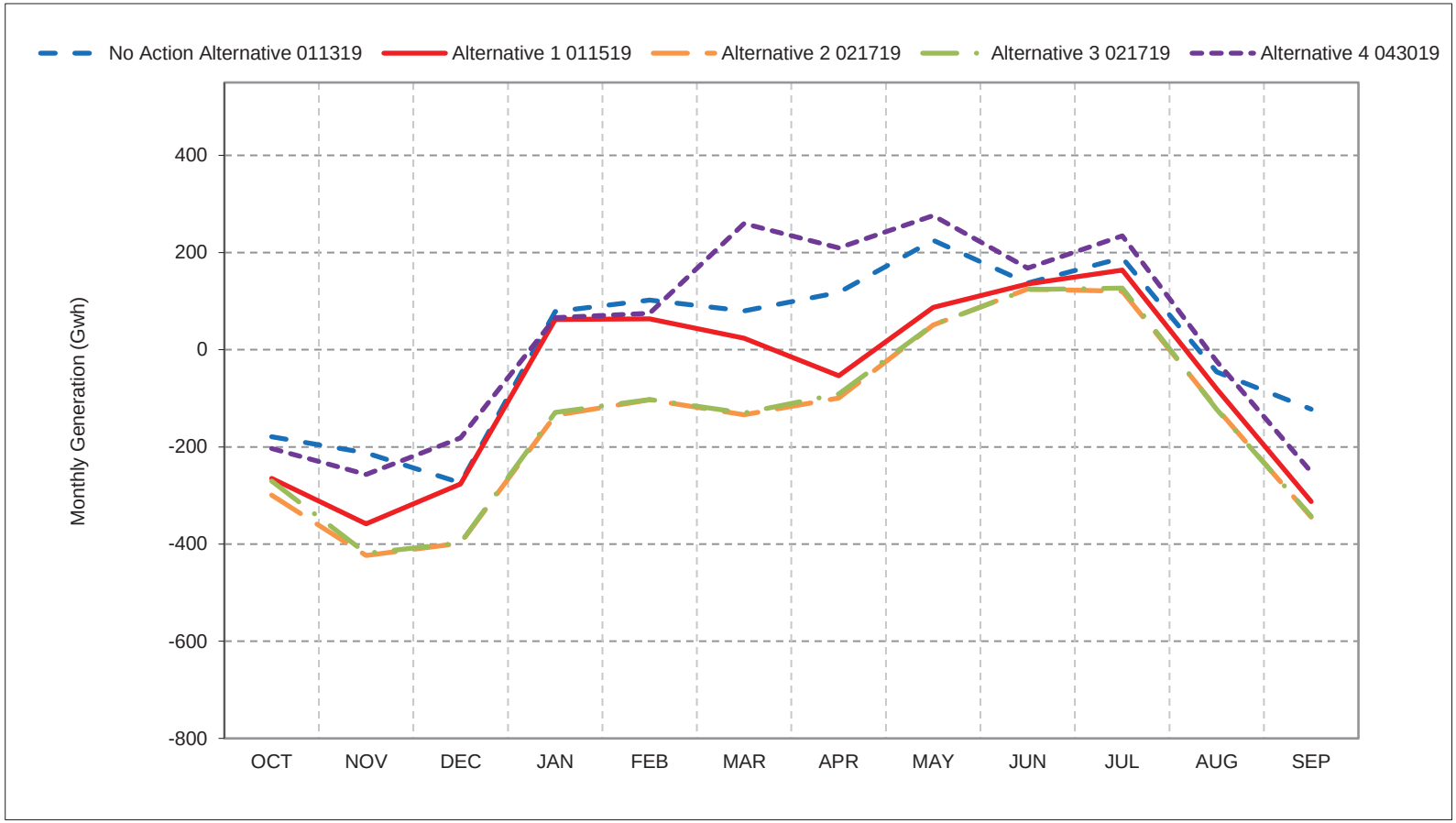
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).

c These results are displayed with calendar year - year type sorting.

d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

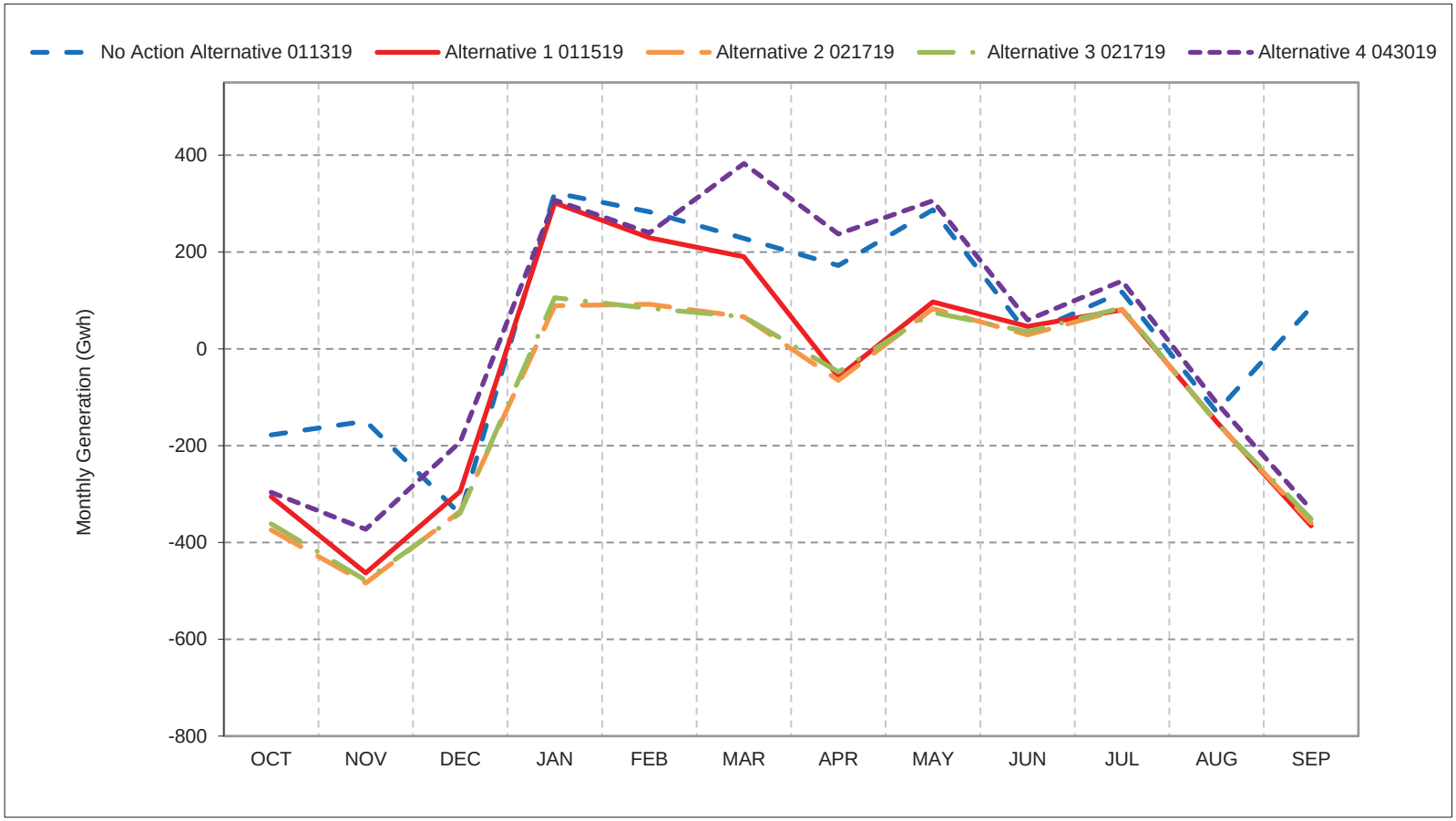
e These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-1. CVP and SWP Net Generation, Long-Term Average Generation



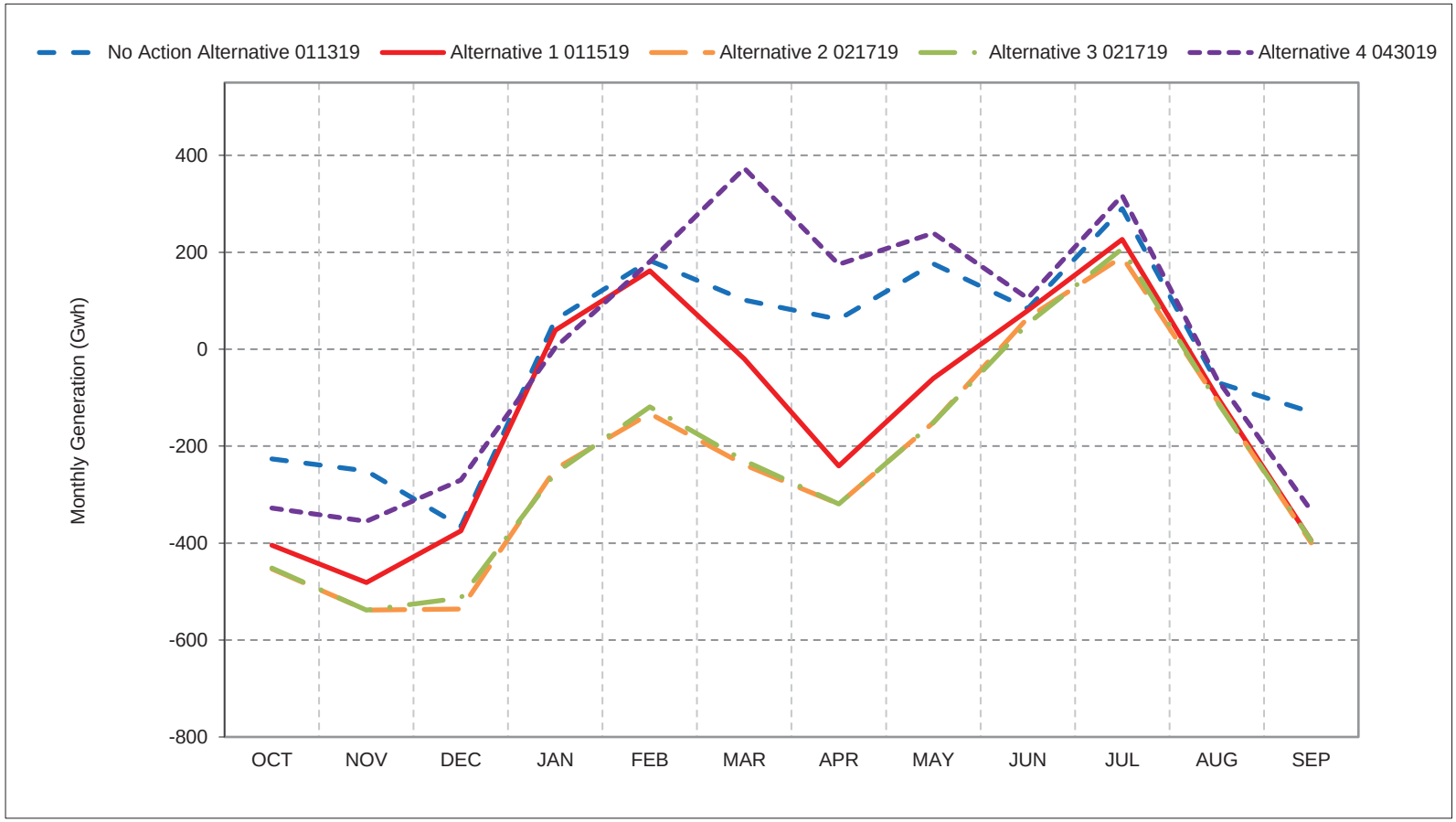
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-2. CVP and SWP Net Generation, Wet Year Average Generation



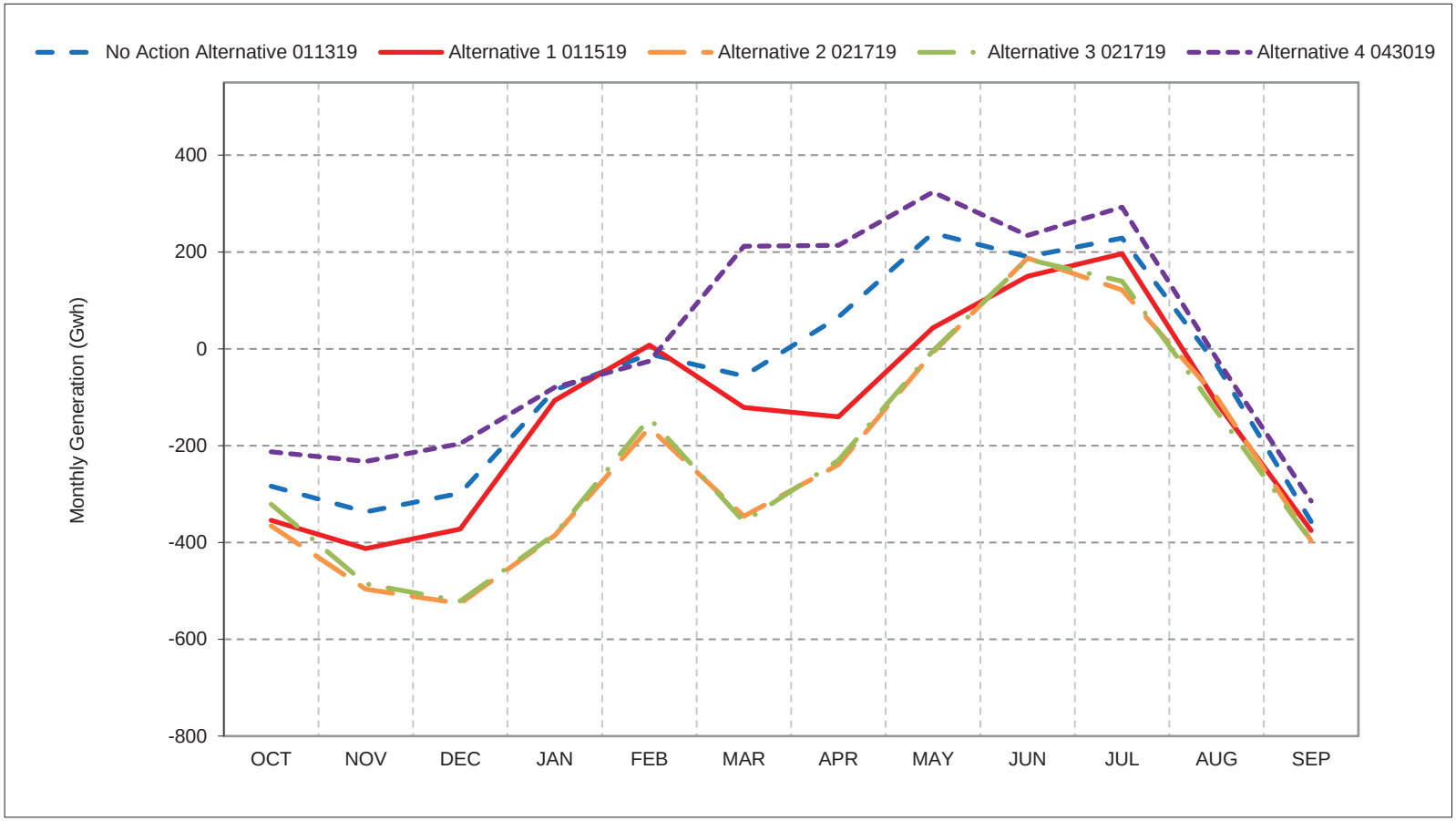
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-3. CVP and SWP Net Generation, Above Normal Year Average Generation



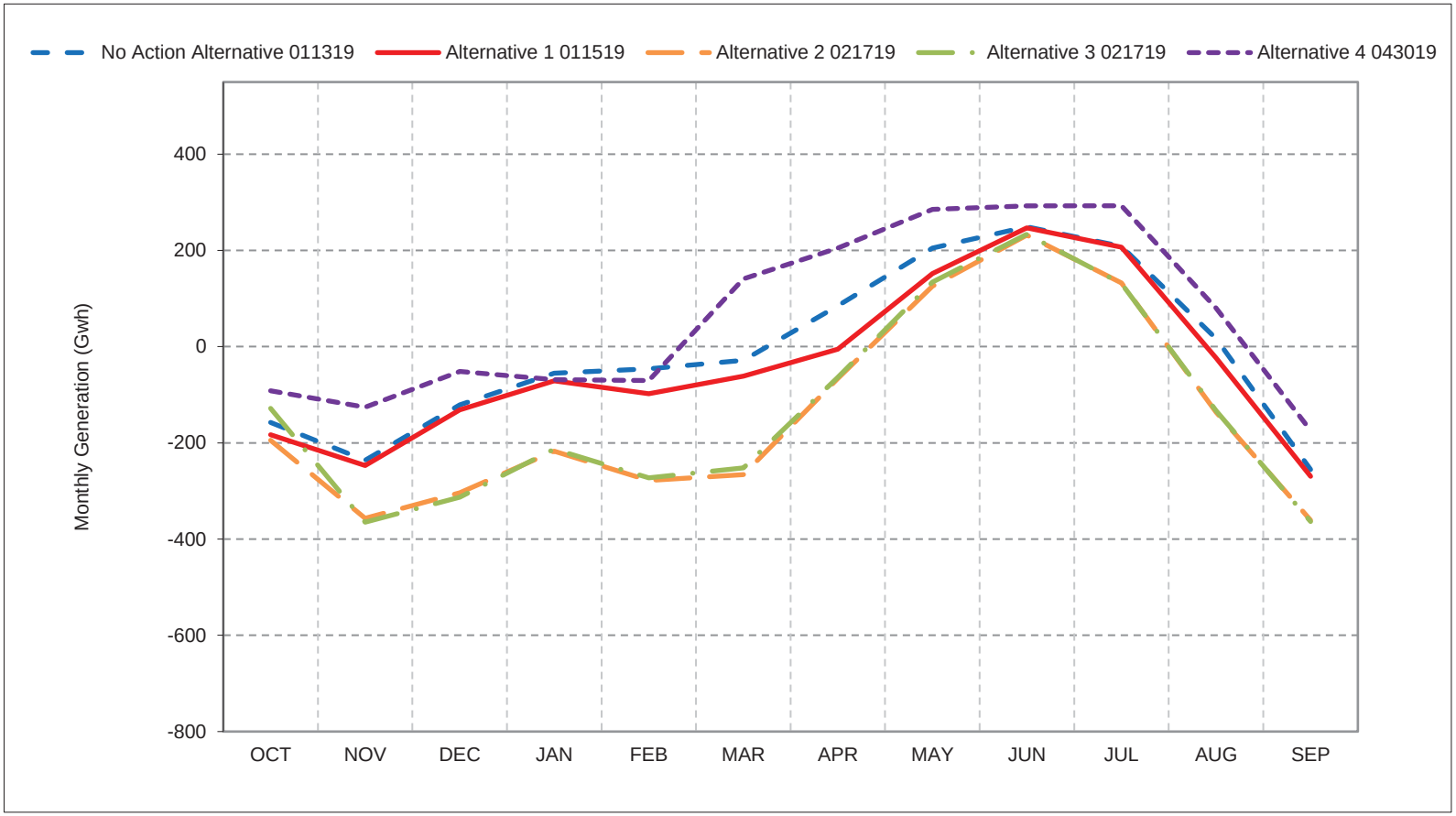
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-4. CVP and SWP Net Generation, Below Normal Year Average Generation



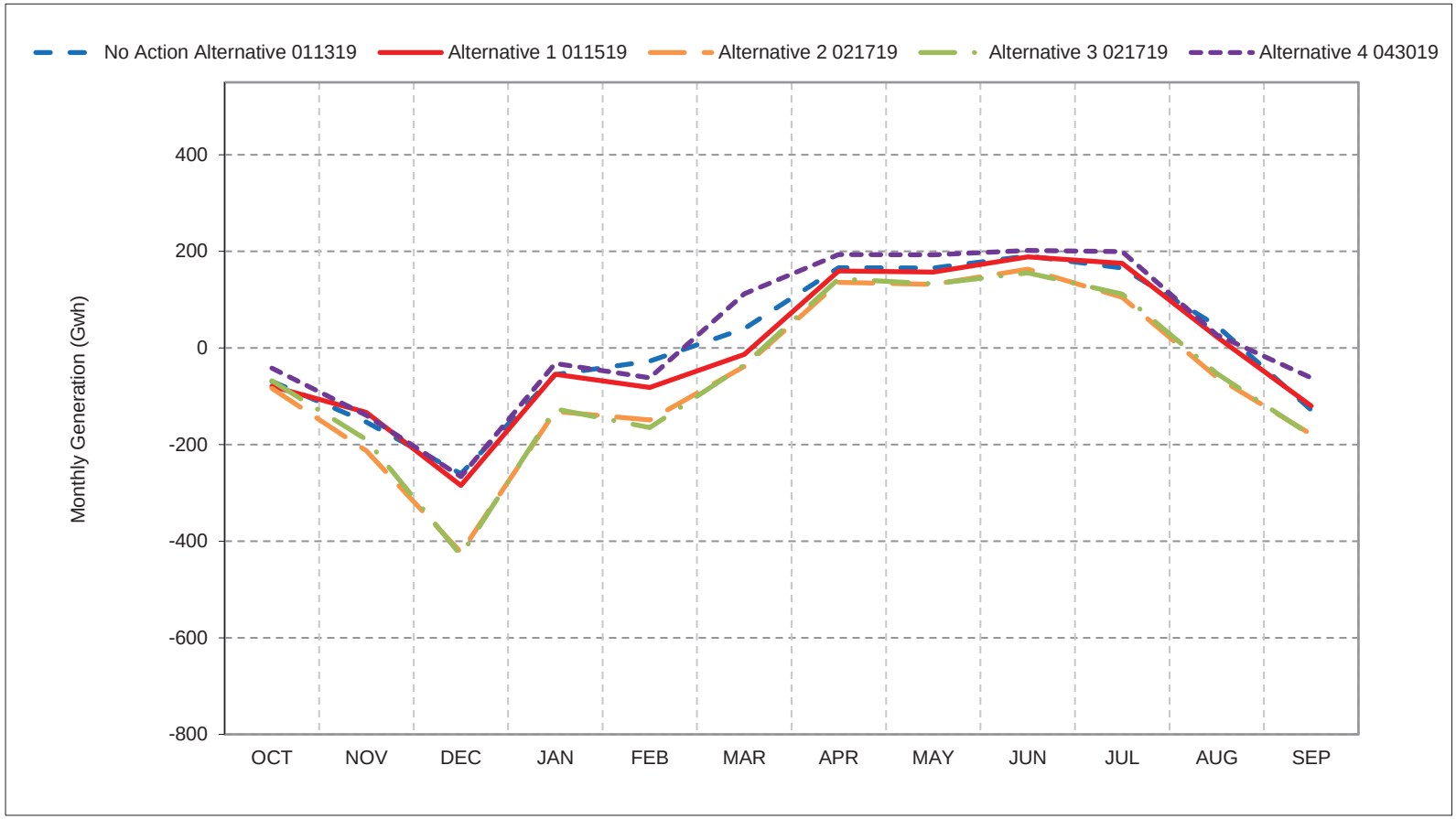
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-5. CVP and SWP Net Generation, Dry Year Average Generation



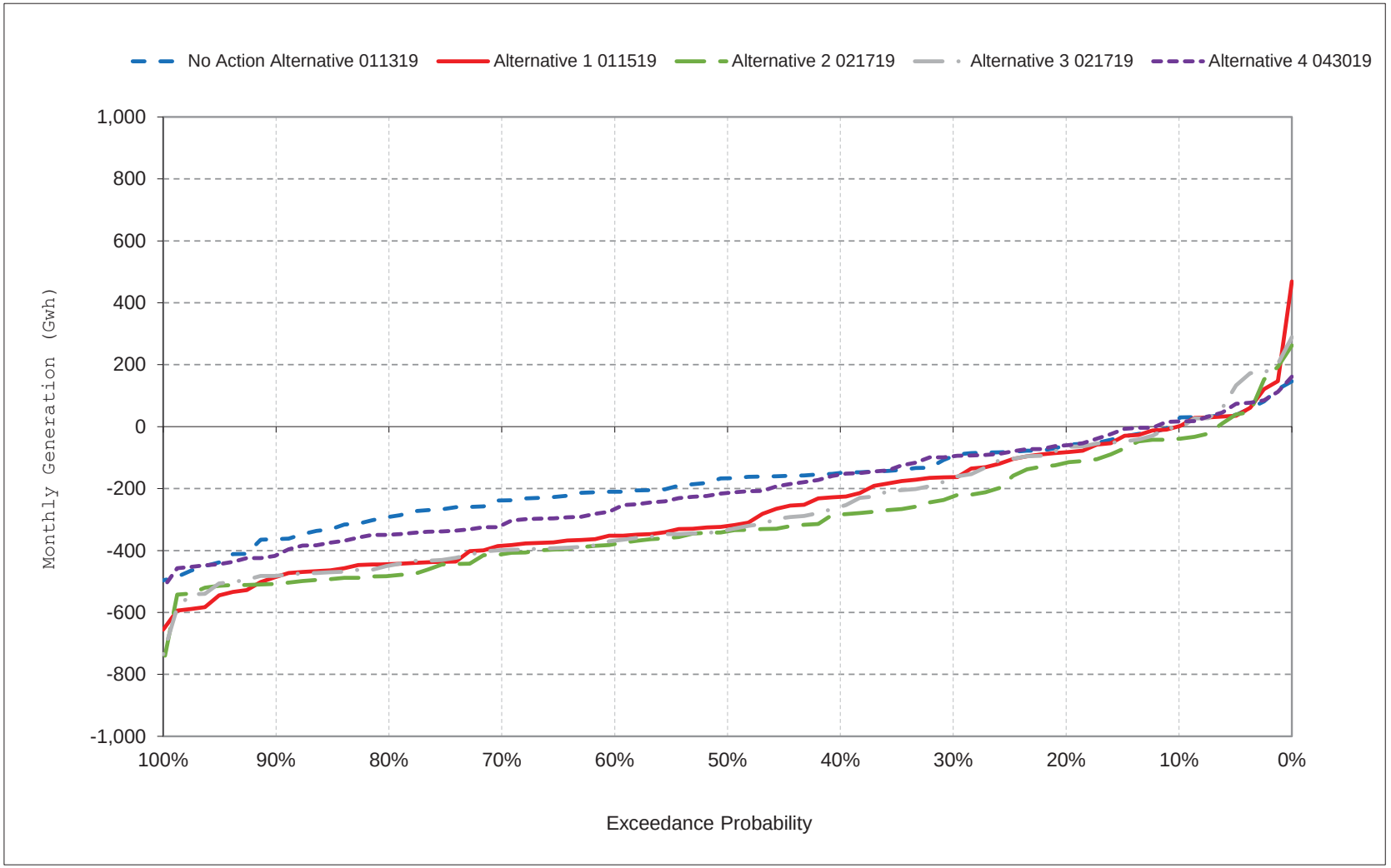
*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-6. CVP and SWP Net Generation, Critical Year Average Generation



*As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
*These results are displayed with calendar year - year type sorting.
*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-7. CVP and SWP Net Generation, October



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

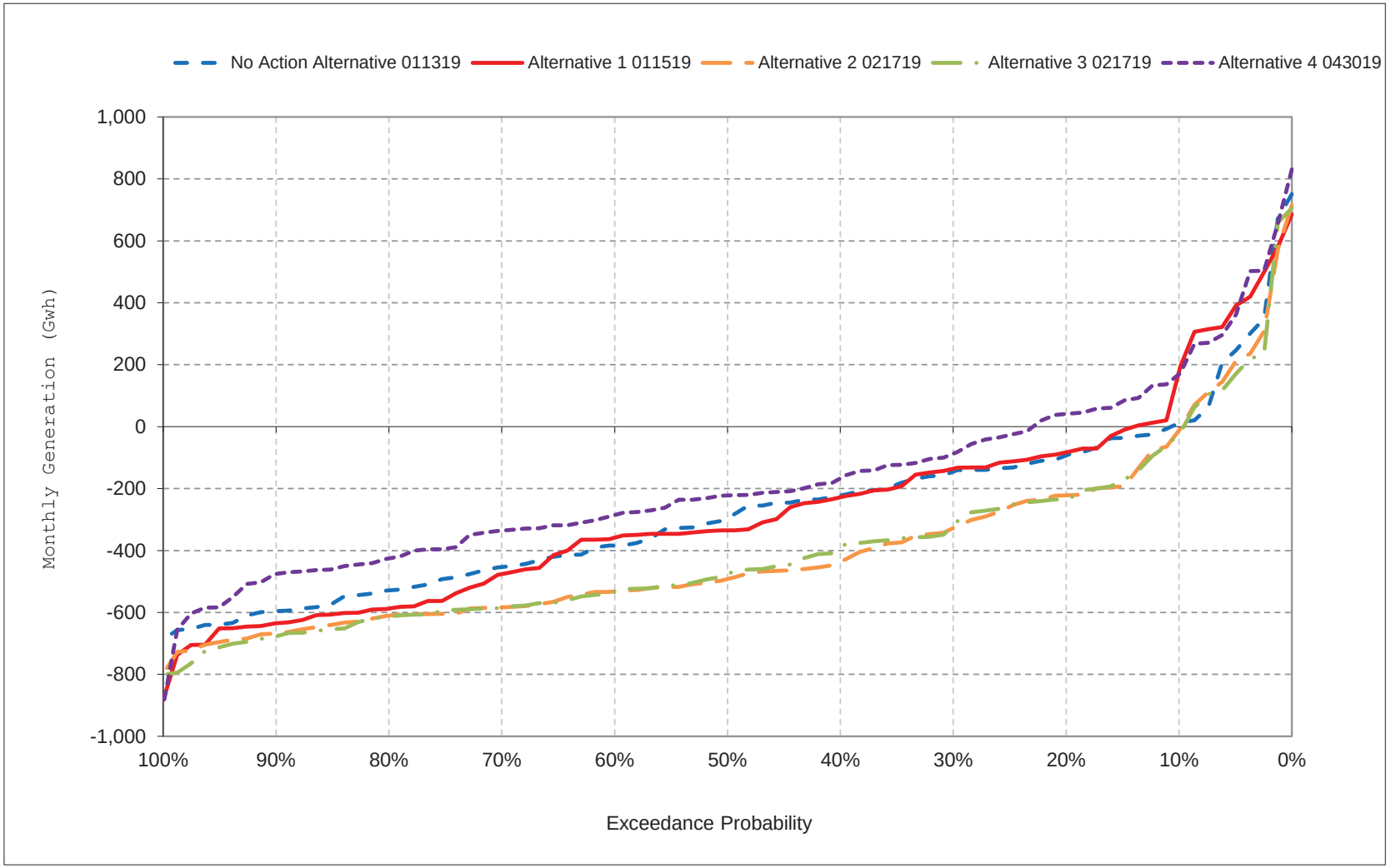
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-8. CVP and SWP Net Generation, November

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

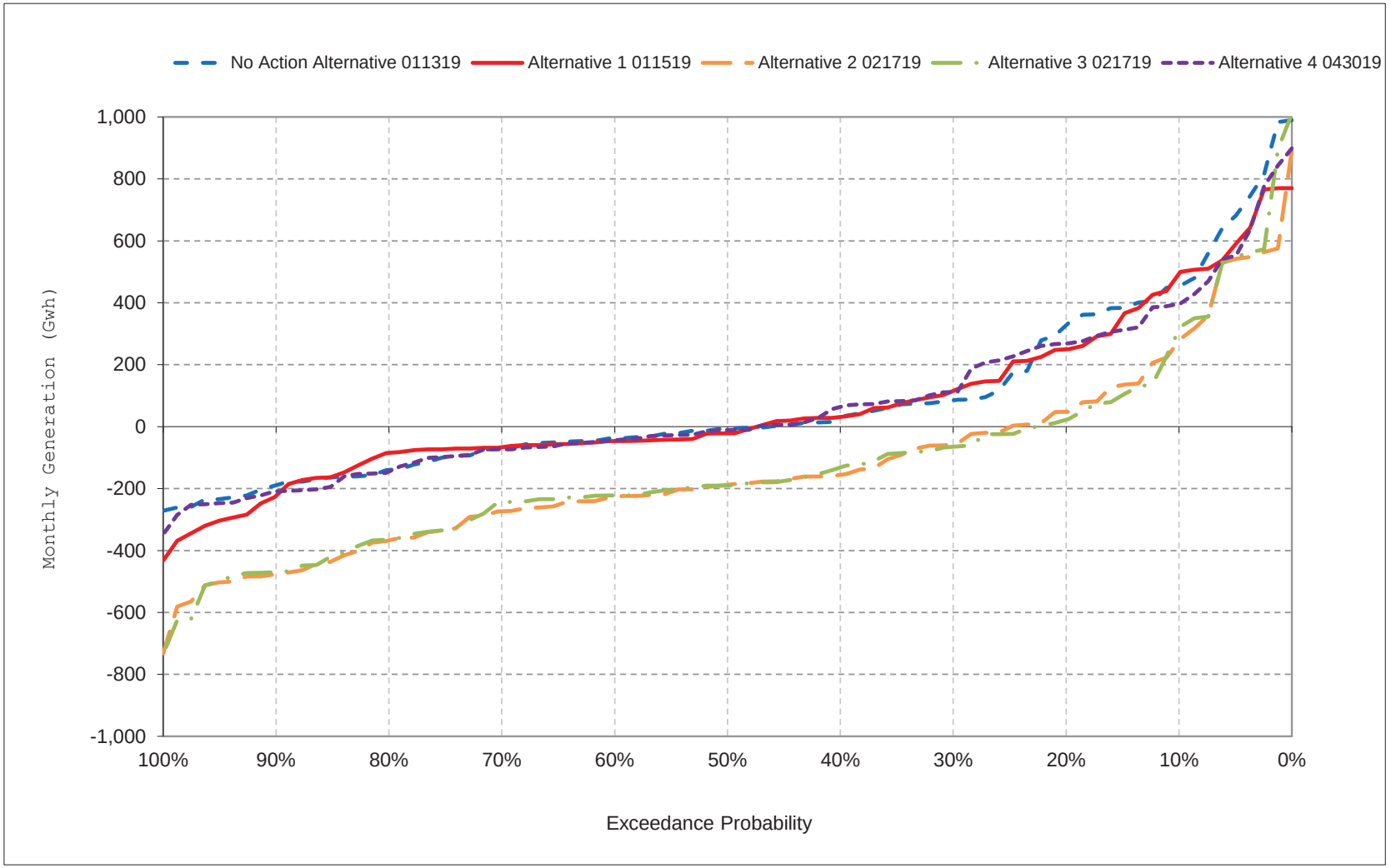
Figure 9-9. CVP and SWP Net Generation, December



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-10. CVP and SWP Net Generation, January



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-11. CVP and SWP Net Generation, February

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-12. CVP and SWP Net Generation, March

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

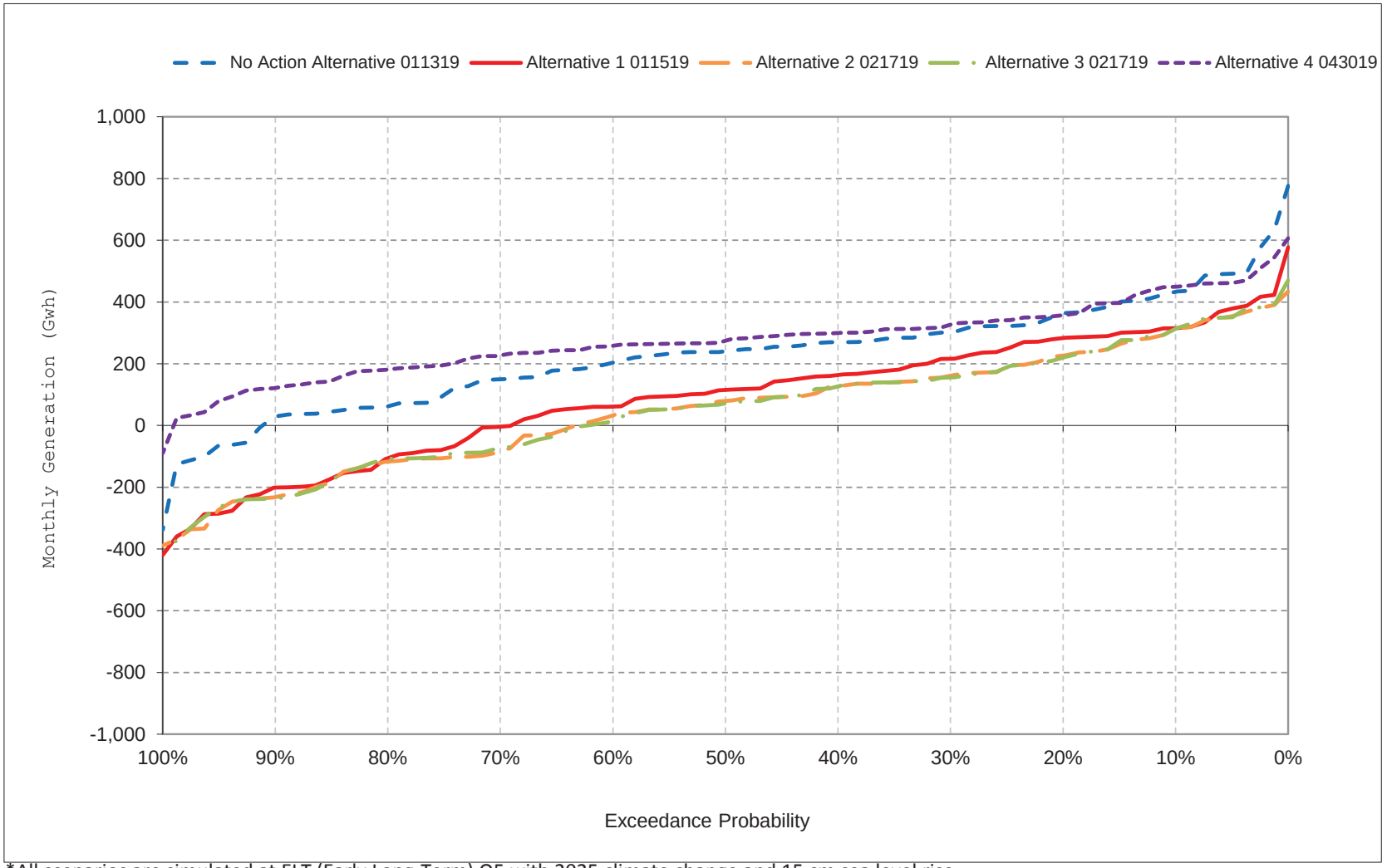
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-13. CVP and SWP Net Generation, April

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-14. CVP and SWP Net Generation, May



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

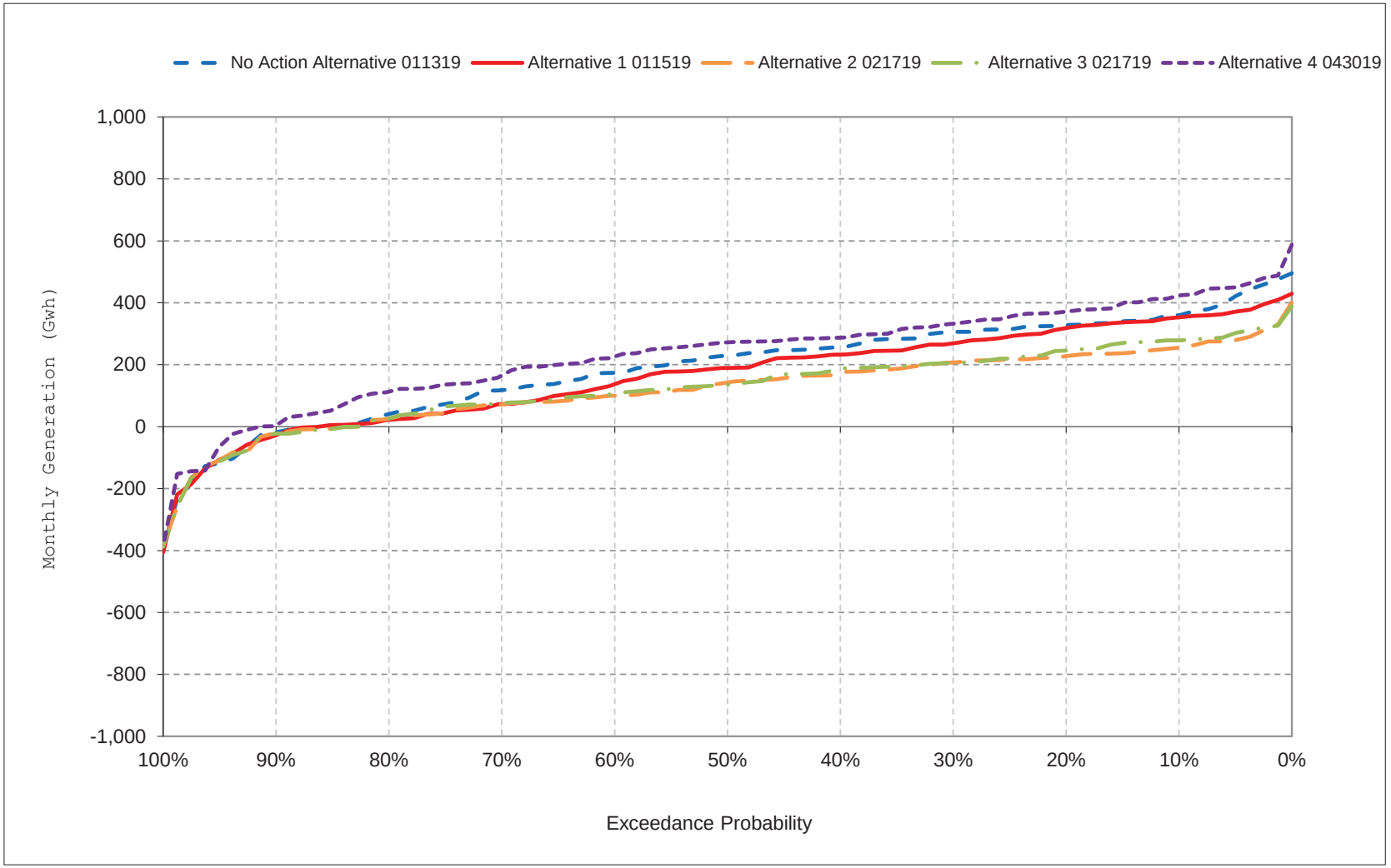
*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-15. CVP and SWP Net Generation, June

*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

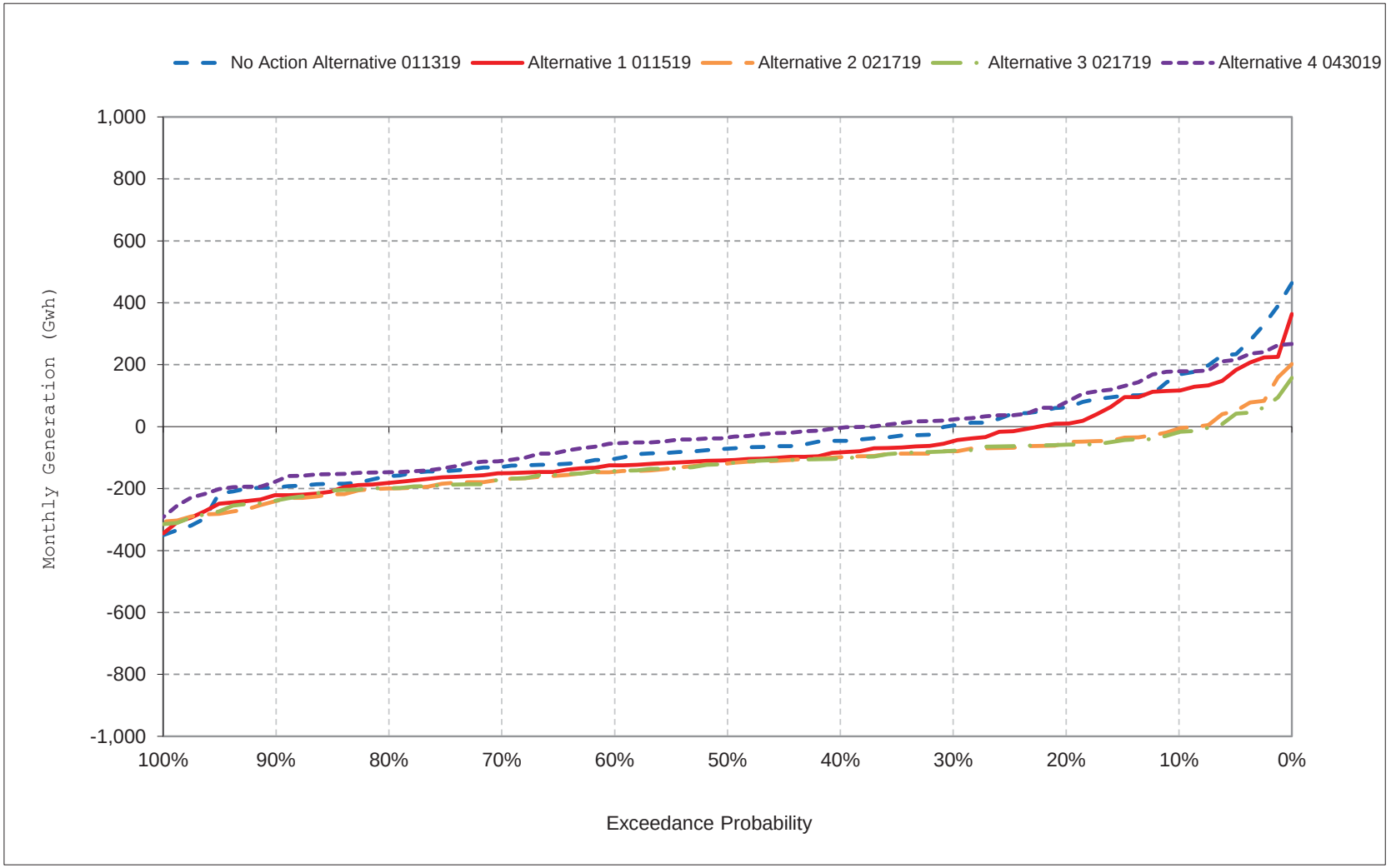
Figure 9-16. CVP and SWP Net Generation, July



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

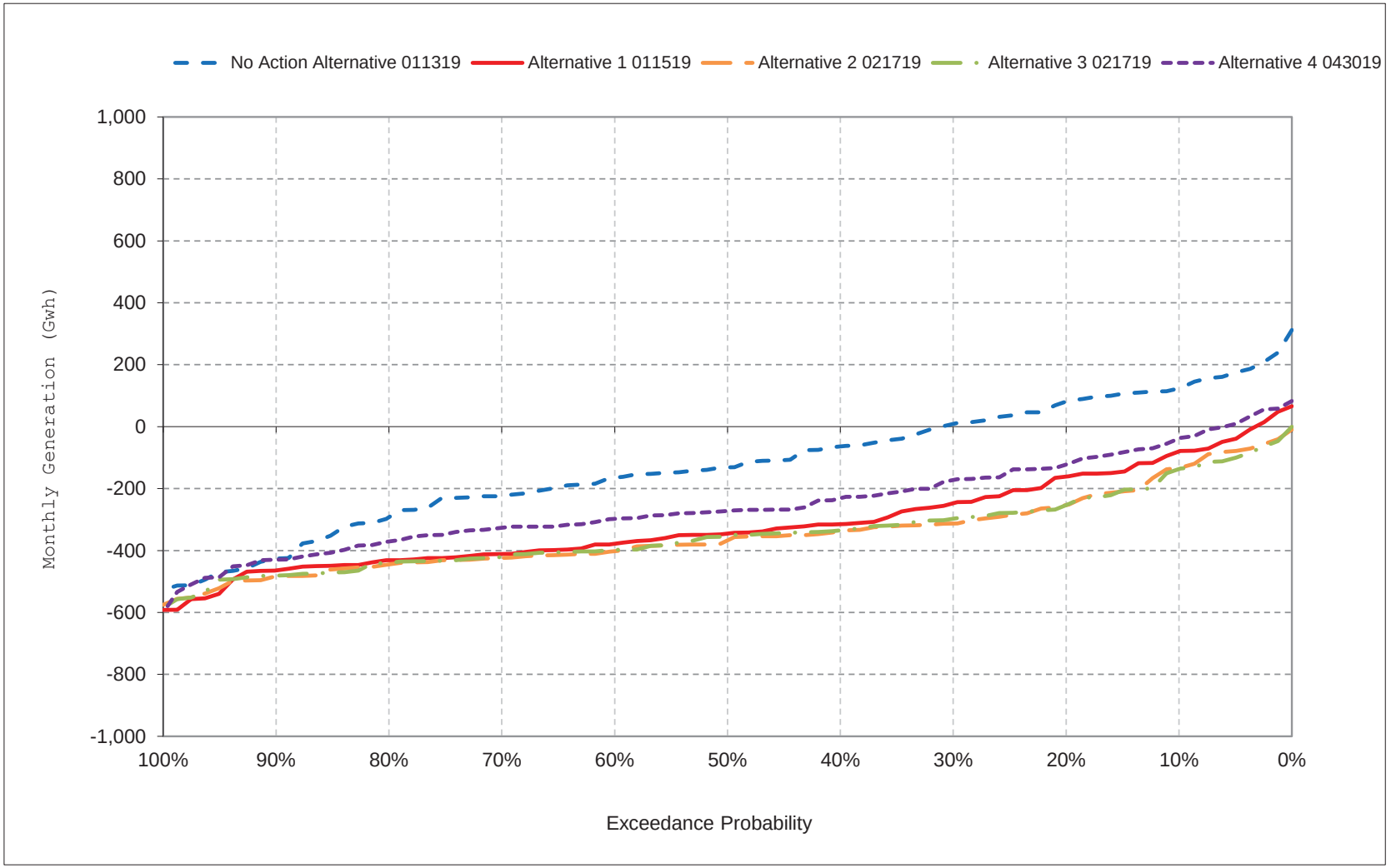
Figure 9-17. CVP and SWP Net Generation, August



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Figure 9-18. CVP and SWP Net Generation, September



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.

*These are draft results meant for qualitative analysis and are subject to revision.

Appendix T – Power

Attachment 2 – Annual Power Modeling Results (LTGen & SWP Power)

The following results of the LTGen and SWP Power models are included for energy use, energy generation at key project locations for the following alternatives:

- No Action Alternative 011319
- Alternative 1 011519
- Alternative 2 021719
- Alternative 3 021719
- Alternative 4 043019

Title	Model Parameter	Table Numbers	Figure Numbers
CVP Total Generation	CVP_TOTAL	2a-1 to 2a-4	2a-1
CVP Total Energy Use	CVP_TOTAL	3a-1 to 3a-4	3a-1
CVP Net Generation	CVP_TOTAL	4a-1 to 4a-4	4a-1
SWP Total Generation	SWP_TOTAL	6a-1 to 6a-4	6a-1
SWP Total Energy Use	SWP_TOTAL	7a-1 to 7a-4	7a-1
SWP Net Generation	SWP_TOTAL	8a-1 to 8a-4	8a-1
CVP and SWP Net Generation	CVP_SWP_TOTAL	9a-1 to 9a-4	9a-1

Report formats

- Exceedance tables comparing power modeling results of two scenarios
- Annual exceedance charts including all scenarios

Table 2a-1. Annual CVP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,453.64
20%	5,752.81
30%	5,289.48
40%	4,966.67
50%	4,537.91
60%	4,026.35
70%	3,666.04
80%	3,260.65
90%	2,759.49
Long Term	
Full Simulation Period[a]	4,526.17
Water Year Types[b,c]	
Wet (32%)	6,133.18
Above Normal (16%)	5,024.97
Below Normal (13%)	4,100.68
Dry (24%)	3,563.00
Critical (15%)	2,548.30

Alternative 1 011519

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,410.11
20%	5,642.62
30%	5,173.10
40%	4,942.00
50%	4,632.99
60%	3,971.43
70%	3,655.34
80%	3,298.21
90%	2,872.28
Long Term	
Full Simulation Period[a]	4,539.01
Water Year Types[b,c]	
Wet (32%)	5,982.94
Above Normal (16%)	4,986.29
Below Normal (13%)	4,314.80
Dry (24%)	3,587.87
Critical (15%)	2,716.72

Alternative 1 011519 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	-43.53
20%	-110.18
30%	-116.38
40%	-24.67
50%	95.08
60%	-54.93
70%	-10.70
80%	37.56
90%	112.79
Long Term	
Full Simulation Period[a]	12.84
Water Year Types[b,c]	
Wet (32%)	-150.23
Above Normal (16%)	-38.68
Below Normal (13%)	214.13
Dry (24%)	24.87
Critical (15%)	168.42

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 2a-2. Annual CVP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,453.64
20%	5,752.81
30%	5,289.48
40%	4,966.67
50%	4,537.91
60%	4,026.35
70%	3,666.04
80%	3,260.65
90%	2,759.49
Long Term	
Full Simulation Period[a]	4,526.17
Water Year Types[b,c]	
Wet (32%)	6,133.18
Above Normal (16%)	5,024.97
Below Normal (13%)	4,100.68
Dry (24%)	3,563.00
Critical (15%)	2,548.30

Alternative 2 021719

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,403.50
20%	5,746.13
30%	5,301.28
40%	5,087.19
50%	4,721.89
60%	3,966.16
70%	3,717.74
80%	3,460.59
90%	2,932.34
Long Term	
Full Simulation Period[a]	4,608.71
Water Year Types[b,c]	
Wet (32%)	6,034.85
Above Normal (16%)	5,077.44
Below Normal (13%)	4,473.46
Dry (24%)	3,626.96
Critical (15%)	2,771.16

Alternative 2 021719 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	-50.14
20%	-6.67
30%	11.80
40%	120.52
50%	183.98
60%	-60.19
70%	51.70
80%	199.94
90%	172.85
Long Term	
Full Simulation Period[a]	82.53
Water Year Types[b,c]	
Wet (32%)	-98.33
Above Normal (16%)	52.47
Below Normal (13%)	372.78
Dry (24%)	63.96
Critical (15%)	222.86

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 2a-3. Annual CVP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,453.64
20%	5,752.81
30%	5,289.48
40%	4,966.67
50%	4,537.91
60%	4,026.35
70%	3,666.04
80%	3,260.65
90%	2,759.49
Long Term	
Full Simulation Period[a]	4,526.17
Water Year Types[b,c]	
Wet (32%)	6,133.18
Above Normal (16%)	5,024.97
Below Normal (13%)	4,100.68
Dry (24%)	3,563.00
Critical (15%)	2,548.30

Alternative 3 021719

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,448.62
20%	5,736.54
30%	5,244.01
40%	5,082.16
50%	4,725.95
60%	3,988.26
70%	3,712.51
80%	3,448.91
90%	2,914.24
Long Term	
Full Simulation Period[a]	4,610.48
Water Year Types[b,c]	
Wet (32%)	6,040.29
Above Normal (16%)	5,073.08
Below Normal (13%)	4,477.91
Dry (24%)	3,632.85
Critical (15%)	2,762.29

Alternative 3 021719 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	-5.03
20%	-16.27
30%	-45.46
40%	115.49
50%	188.04
60%	-38.09
70%	46.46
80%	188.26
90%	154.74
Long Term	
Full Simulation Period[a]	84.30
Water Year Types[b,c]	
Wet (32%)	-92.88
Above Normal (16%)	48.11
Below Normal (13%)	377.23
Dry (24%)	69.85
Critical (15%)	214.00

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 2a-4. Annual CVP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,453.64
20%	5,752.81
30%	5,289.48
40%	4,966.67
50%	4,537.91
60%	4,026.35
70%	3,666.04
80%	3,260.65
90%	2,759.49
Long Term	
Full Simulation Period[a]	4,526.17
Water Year Types[b,c]	
Wet (32%)	6,133.18
Above Normal (16%)	5,024.97
Below Normal (13%)	4,100.68
Dry (24%)	3,563.00
Critical (15%)	2,548.30

Alternative 4 043019

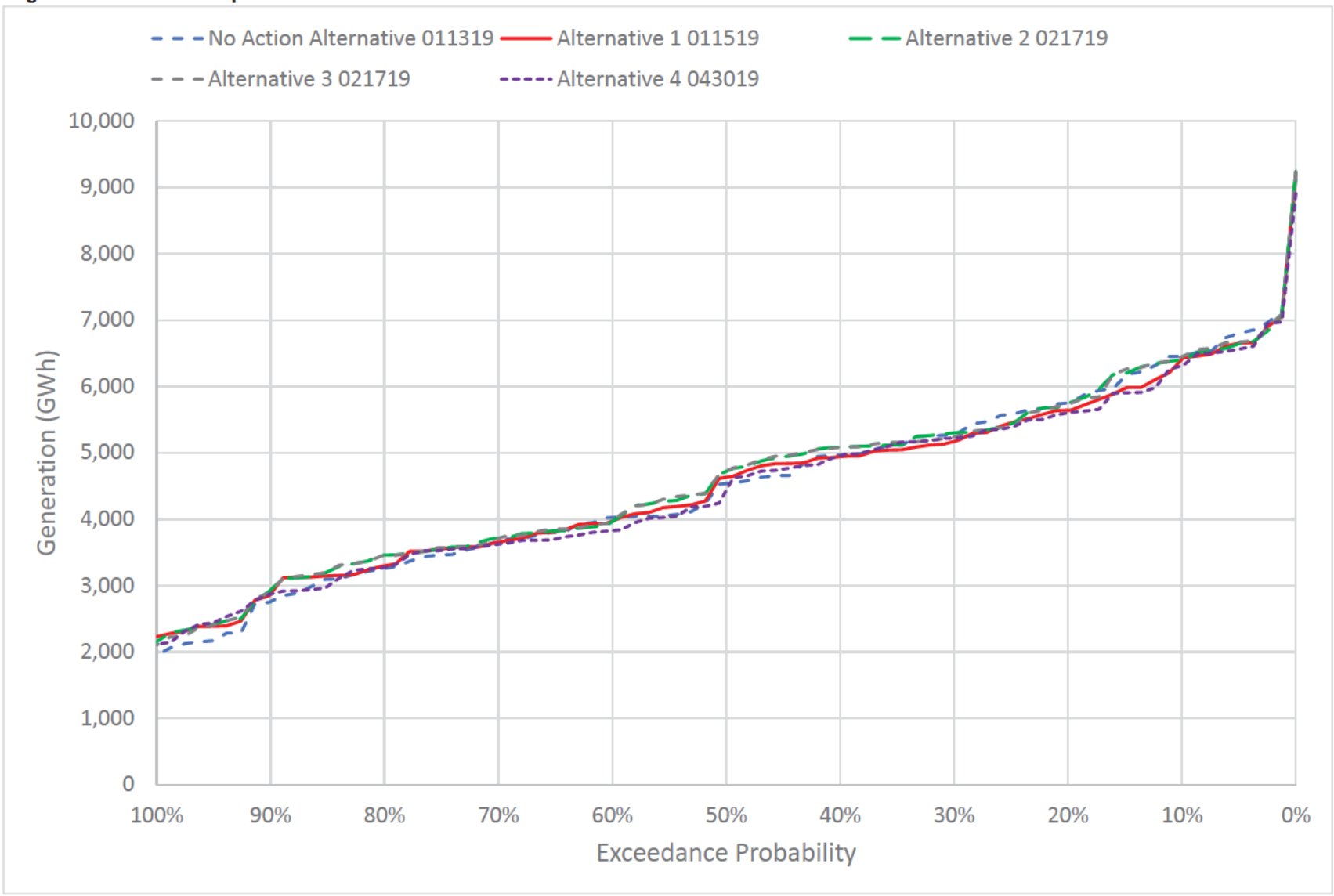
Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,313.28
20%	5,603.31
30%	5,222.27
40%	4,955.98
50%	4,433.77
60%	3,828.62
70%	3,624.81
80%	3,274.94
90%	2,871.11
Long Term	
Full Simulation Period[a]	4,488.67
Water Year Types[b,c]	
Wet (32%)	5,953.95
Above Normal (16%)	4,984.11
Below Normal (13%)	4,171.94
Dry (24%)	3,547.72
Critical (15%)	2,635.77

Alternative 4 043019 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	-140.36
20%	-149.49
30%	-67.21
40%	-10.68
50%	-104.14
60%	-197.73
70%	-41.23
80%	14.29
90%	111.61
Long Term	
Full Simulation Period[a]	-37.51
Water Year Types[b,c]	
Wet (32%)	-179.23
Above Normal (16%)	-40.86
Below Normal (13%)	71.26
Dry (24%)	-15.28
Critical (15%)	87.47

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 2a-1. October-September CVP Total Generation



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 3a-1. Annual CVP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,496.28
20%	1,421.06
30%	1,365.89
40%	1,291.42
50%	1,242.70
60%	1,200.04
70%	1,114.48
80%	1,015.57
90%	828.57
Long Term	
Full Simulation Period[a]	1,206.94
Water Year Types[b,c]	
Wet (32%)	1,439.03
Above Normal (16%)	1,274.73
Below Normal (13%)	1,180.64
Dry (24%)	1,124.43
Critical (15%)	792.27

Alternative 1 011519

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,605.56
20%	1,531.01
30%	1,485.21
40%	1,444.03
50%	1,376.90
60%	1,300.08
70%	1,206.76
80%	1,105.97
90%	989.97
Long Term	
Full Simulation Period[a]	1,321.77
Water Year Types[b,c]	
Wet (32%)	1,548.26
Above Normal (16%)	1,391.57
Below Normal (13%)	1,366.80
Dry (24%)	1,220.01
Critical (15%)	883.73

Alternative 1 011519 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	109.28
20%	109.95
30%	119.31
40%	152.61
50%	134.20
60%	100.04
70%	92.29
80%	90.40
90%	161.40
Long Term	
Full Simulation Period[a]	114.83
Water Year Types[b,c]	
Wet (32%)	109.24
Above Normal (16%)	116.84
Below Normal (13%)	186.16
Dry (24%)	95.58
Critical (15%)	91.47

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 3a-2. Annual CVP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,496.28
20%	1,421.06
30%	1,365.89
40%	1,291.42
50%	1,242.70
60%	1,200.04
70%	1,114.48
80%	1,015.57
90%	828.57
Long Term	
Full Simulation Period[a]	1,206.94
Water Year Types[b,c]	
Wet (32%)	1,439.03
Above Normal (16%)	1,274.73
Below Normal (13%)	1,180.64
Dry (24%)	1,124.43
Critical (15%)	792.27

Alternative 2 021719

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,714.41
20%	1,657.60
30%	1,625.57
40%	1,584.62
50%	1,529.53
60%	1,416.65
70%	1,273.23
80%	1,180.80
90%	1,004.83
Long Term	
Full Simulation Period[a]	1,419.75
Water Year Types[b,c]	
Wet (32%)	1,624.88
Above Normal (16%)	1,570.92
Below Normal (13%)	1,515.57
Dry (24%)	1,280.98
Critical (15%)	954.95

Alternative 2 021719 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	218.13
20%	236.53
30%	259.68
40%	293.20
50%	286.83
60%	216.61
70%	158.76
80%	165.24
90%	176.26
Long Term	
Full Simulation Period[a]	212.81
Water Year Types[b,c]	
Wet (32%)	185.86
Above Normal (16%)	296.19
Below Normal (13%)	334.93
Dry (24%)	156.55
Critical (15%)	162.69

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 3a-3. Annual CVP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,496.28
20%	1,421.06
30%	1,365.89
40%	1,291.42
50%	1,242.70
60%	1,200.04
70%	1,114.48
80%	1,015.57
90%	828.57
Long Term	
Full Simulation Period[a]	1,206.94
Water Year Types[b,c]	
Wet (32%)	1,439.03
Above Normal (16%)	1,274.73
Below Normal (13%)	1,180.64
Dry (24%)	1,124.43
Critical (15%)	792.27

Alternative 3 021719

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,712.90
20%	1,661.41
30%	1,618.08
40%	1,573.84
50%	1,514.45
60%	1,396.54
70%	1,301.92
80%	1,168.93
90%	1,011.51
Long Term	
Full Simulation Period[a]	1,415.38
Water Year Types[b,c]	
Wet (32%)	1,623.02
Above Normal (16%)	1,563.44
Below Normal (13%)	1,517.93
Dry (24%)	1,272.12
Critical (15%)	949.83

Alternative 3 021719 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	216.62
20%	240.34
30%	252.18
40%	282.42
50%	271.76
60%	196.50
70%	187.44
80%	153.36
90%	182.94
Long Term	
Full Simulation Period[a]	208.44
Water Year Types[b,c]	
Wet (32%)	184.00
Above Normal (16%)	288.71
Below Normal (13%)	337.29
Dry (24%)	147.69
Critical (15%)	157.57

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 3a-4. Annual CVP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,496.28
20%	1,421.06
30%	1,365.89
40%	1,291.42
50%	1,242.70
60%	1,200.04
70%	1,114.48
80%	1,015.57
90%	828.57
Long Term	
Full Simulation Period[a]	1,206.94
Water Year Types[b,c]	
Wet (32%)	1,439.03
Above Normal (16%)	1,274.73
Below Normal (13%)	1,180.64
Dry (24%)	1,124.43
Critical (15%)	792.27

Alternative 4 043019

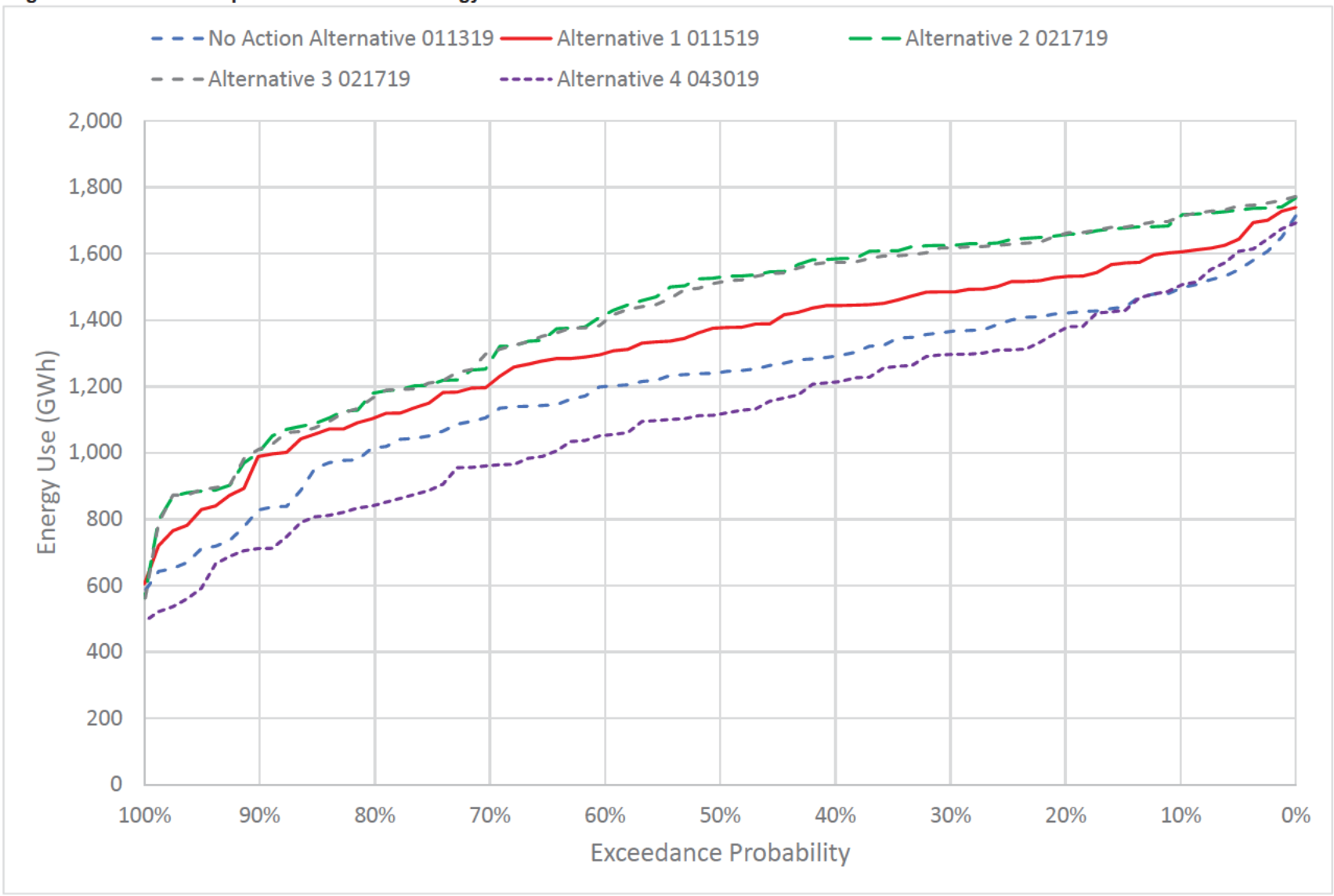
Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	1,504.79
20%	1,376.02
30%	1,296.48
40%	1,213.41
50%	1,117.05
60%	1,052.85
70%	961.84
80%	842.24
90%	711.97
Long Term	
Full Simulation Period[a]	1,116.61
Water Year Types[b,c]	
Wet (32%)	1,412.16
Above Normal (16%)	1,169.41
Below Normal (13%)	1,105.85
Dry (24%)	979.95
Critical (15%)	656.71

Alternative 4 043019 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	8.51
20%	-45.04
30%	-69.41
40%	-78.01
50%	-125.65
60%	-147.19
70%	-152.64
80%	-173.33
90%	-116.60
Long Term	
Full Simulation Period[a]	-90.32
Water Year Types[b,c]	
Wet (32%)	-26.86
Above Normal (16%)	-105.32
Below Normal (13%)	-74.79
Dry (24%)	-144.48
Critical (15%)	-135.56

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 3a-1. October-September CVP Total Energy Use



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 4a-1. Annual CVP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	5,005.52
20%	4,409.15
30%	4,018.51
40%	3,624.22
50%	3,246.79
60%	2,790.93
70%	2,558.25
80%	2,253.60
90%	1,894.42
Long Term	
Full Simulation Period[a]	3,326.40
Water Year Types[b,c]	
Wet (32%)	4,694.15
Above Normal (16%)	3,750.24
Below Normal (13%)	2,920.04
Dry (24%)	2,438.57
Critical (15%)	1,756.03

Alternative 1 011519

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	4,870.17
20%	4,186.04
30%	3,785.98
40%	3,566.60
50%	3,156.81
60%	2,639.32
70%	2,463.14
80%	2,184.21
90%	1,897.10
Long Term	
Full Simulation Period[a]	3,217.24
Water Year Types[b,c]	
Wet (32%)	4,434.68
Above Normal (16%)	3,594.71
Below Normal (13%)	2,948.01
Dry (24%)	2,367.86
Critical (15%)	1,832.98

Alternative 1 011519 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-135.35
20%	-223.12
30%	-232.53
40%	-57.63
50%	-89.98
60%	-151.61
70%	-95.11
80%	-69.39
90%	2.68
Long Term	
Full Simulation Period[a]	-109.16
Water Year Types[b,c]	
Wet (32%)	-259.47
Above Normal (16%)	-155.52
Below Normal (13%)	27.97
Dry (24%)	-70.71
Critical (15%)	76.95

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 4a-2. Annual CVP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	5,005.52
20%	4,409.15
30%	4,018.51
40%	3,624.22
50%	3,246.79
60%	2,790.93
70%	2,558.25
80%	2,253.60
90%	1,894.42
Long Term	
Full Simulation Period[a]	3,326.40
Water Year Types[b,c]	
Wet (32%)	4,694.15
Above Normal (16%)	3,750.24
Below Normal (13%)	2,920.04
Dry (24%)	2,438.57
Critical (15%)	1,756.03

Alternative 2 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	4,797.56
20%	4,176.20
30%	3,675.11
40%	3,517.23
50%	3,081.79
60%	2,633.54
70%	2,351.99
80%	2,198.38
90%	1,886.78
Long Term	
Full Simulation Period[a]	3,188.96
Water Year Types[b,c]	
Wet (32%)	4,409.96
Above Normal (16%)	3,506.52
Below Normal (13%)	2,957.88
Dry (24%)	2,345.98
Critical (15%)	1,816.21

Alternative 2 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-207.96
20%	-232.96
30%	-343.40
40%	-107.00
50%	-165.00
60%	-157.39
70%	-206.26
80%	-55.22
90%	-7.64
Long Term	
Full Simulation Period[a]	-137.44
Water Year Types[b,c]	
Wet (32%)	-284.18
Above Normal (16%)	-243.71
Below Normal (13%)	37.85
Dry (24%)	-92.59
Critical (15%)	60.18

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 4a-3. Annual CVP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	5,005.52
20%	4,409.15
30%	4,018.51
40%	3,624.22
50%	3,246.79
60%	2,790.93
70%	2,558.25
80%	2,253.60
90%	1,894.42
Long Term	
Full Simulation Period[a]	3,326.40
Water Year Types[b,c]	
Wet (32%)	4,694.15
Above Normal (16%)	3,750.24
Below Normal (13%)	2,920.04
Dry (24%)	2,438.57
Critical (15%)	1,756.03

Alternative 3 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	4,799.88
20%	4,191.08
30%	3,675.93
40%	3,492.59
50%	3,106.34
60%	2,643.56
70%	2,364.43
80%	2,193.44
90%	1,928.46
Long Term	
Full Simulation Period[a]	3,195.10
Water Year Types[b,c]	
Wet (32%)	4,417.27
Above Normal (16%)	3,509.64
Below Normal (13%)	2,959.98
Dry (24%)	2,360.73
Critical (15%)	1,812.46

Alternative 3 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-205.64
20%	-218.07
30%	-342.58
40%	-131.64
50%	-140.44
60%	-147.38
70%	-193.82
80%	-60.16
90%	34.04
Long Term	
Full Simulation Period[a]	-131.30
Water Year Types[b,c]	
Wet (32%)	-276.88
Above Normal (16%)	-240.60
Below Normal (13%)	39.94
Dry (24%)	-77.84
Critical (15%)	56.43

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 4a-4. Annual CVP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	5,005.52
20%	4,409.15
30%	4,018.51
40%	3,624.22
50%	3,246.79
60%	2,790.93
70%	2,558.25
80%	2,253.60
90%	1,894.42
Long Term	
Full Simulation Period[a]	3,326.40
Water Year Types[b,c]	
Wet (32%)	4,694.15
Above Normal (16%)	3,750.24
Below Normal (13%)	2,920.04
Dry (24%)	2,438.57
Critical (15%)	1,756.03

Alternative 4 043019

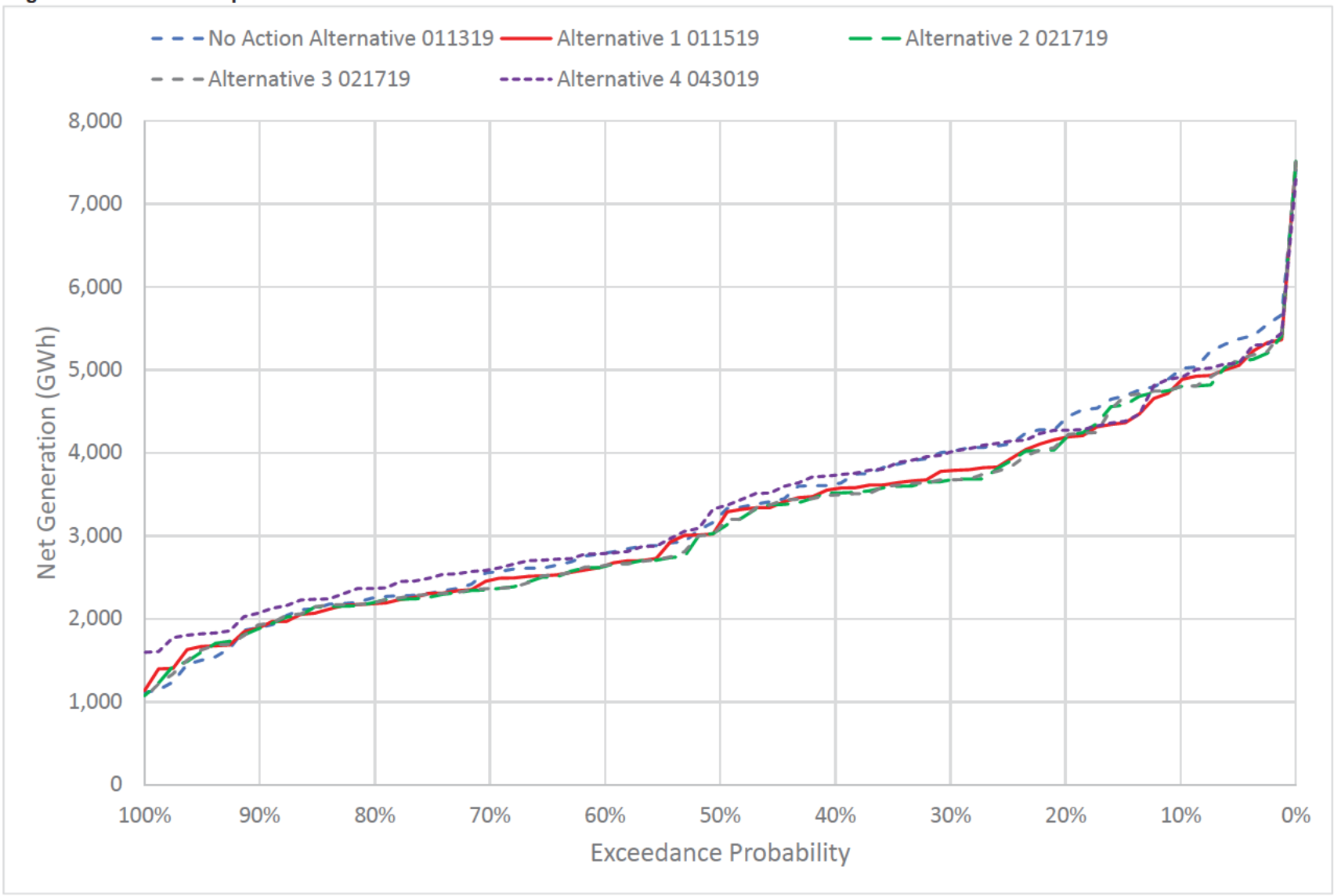
Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	4,912.27
20%	4,272.70
30%	4,009.23
40%	3,731.19
50%	3,345.98
60%	2,787.88
70%	2,593.15
80%	2,367.77
90%	2,074.53
Long Term	
Full Simulation Period[a]	3,372.05
Water Year Types[b,c]	
Wet (32%)	4,541.78
Above Normal (16%)	3,814.70
Below Normal (13%)	3,066.09
Dry (24%)	2,567.77
Critical (15%)	1,979.06

Alternative 4 043019 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-93.25
20%	-136.46
30%	-9.28
40%	106.96
50%	99.19
60%	-3.06
70%	34.90
80%	114.16
90%	180.11
Long Term	
Full Simulation Period[a]	45.65
Water Year Types[b,c]	
Wet (32%)	-152.37
Above Normal (16%)	64.46
Below Normal (13%)	146.05
Dry (24%)	129.20
Critical (15%)	223.03

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 4a-1. October-September CVP Net Generation



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 6a-1. Annual SWP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,284.08
20%	5,824.89
30%	5,185.98
40%	4,353.40
50%	4,082.44
60%	3,463.96
70%	3,000.77
80%	2,541.22
90%	1,977.63
Long Term	
Full Simulation Period[a]	4,073.86
Water Year Types[b,c]	
Wet (32%)	6,021.83
Above Normal (16%)	4,422.83
Below Normal (13%)	3,772.55
Dry (24%)	2,854.12
Critical (15%)	1,784.30

Alternative 1 011519

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,665.89
20%	5,972.50
30%	5,402.33
40%	4,904.57
50%	4,494.69
60%	3,802.85
70%	3,213.03
80%	2,690.18
90%	2,026.97
Long Term	
Full Simulation Period[a]	4,348.89
Water Year Types[b,c]	
Wet (32%)	6,169.60
Above Normal (16%)	4,904.85
Below Normal (13%)	4,300.43
Dry (24%)	3,099.15
Critical (15%)	1,929.03

Alternative 1 011519 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	381.82
20%	147.60
30%	216.35
40%	551.18
50%	412.25
60%	338.89
70%	212.26
80%	148.96
90%	49.34
Long Term	
Full Simulation Period[a]	275.03
Water Year Types[b,c]	
Wet (32%)	147.77
Above Normal (16%)	482.02
Below Normal (13%)	527.88
Dry (24%)	245.03
Critical (15%)	144.73

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 6a-2. Annual SWP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,284.08
20%	5,824.89
30%	5,185.98
40%	4,353.40
50%	4,082.44
60%	3,463.96
70%	3,000.77
80%	2,541.22
90%	1,977.63
Long Term	
Full Simulation Period[a]	4,073.86
Water Year Types[b,c]	
Wet (32%)	6,021.83
Above Normal (16%)	4,422.83
Below Normal (13%)	3,772.55
Dry (24%)	2,854.12
Critical (15%)	1,784.30

Alternative 2 021719

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,638.20
20%	6,155.94
30%	5,762.50
40%	5,338.05
50%	4,872.73
60%	4,296.47
70%	3,633.33
80%	3,228.39
90%	2,356.61
Long Term	
Full Simulation Period[a]	4,679.35
Water Year Types[b,c]	
Wet (32%)	6,349.91
Above Normal (16%)	5,281.17
Below Normal (13%)	4,683.30
Dry (24%)	3,570.03
Critical (15%)	2,253.10

Alternative 2 021719 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	354.12
20%	331.05
30%	576.52
40%	984.66
50%	790.29
60%	832.51
70%	632.56
80%	687.17
90%	378.98
Long Term	
Full Simulation Period[a]	605.49
Water Year Types[b,c]	
Wet (32%)	328.08
Above Normal (16%)	858.34
Below Normal (13%)	910.75
Dry (24%)	715.91
Critical (15%)	468.80

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 6a-3. Annual SWP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,284.08
20%	5,824.89
30%	5,185.98
40%	4,353.40
50%	4,082.44
60%	3,463.96
70%	3,000.77
80%	2,541.22
90%	1,977.63
Long Term	
Full Simulation Period[a]	4,073.86
Water Year Types[b,c]	
Wet (32%)	6,021.83
Above Normal (16%)	4,422.83
Below Normal (13%)	3,772.55
Dry (24%)	2,854.12
Critical (15%)	1,784.30

Alternative 3 021719

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,544.20
20%	6,156.43
30%	5,795.58
40%	5,329.02
50%	4,922.56
60%	4,271.76
70%	3,600.85
80%	3,184.61
90%	2,379.93
Long Term	
Full Simulation Period[a]	4,658.24
Water Year Types[b,c]	
Wet (32%)	6,308.22
Above Normal (16%)	5,264.80
Below Normal (13%)	4,676.81
Dry (24%)	3,559.45
Critical (15%)	2,240.48

Alternative 3 021719 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	260.12
20%	331.54
30%	609.60
40%	975.62
50%	840.12
60%	807.80
70%	600.08
80%	643.39
90%	402.29
Long Term	
Full Simulation Period[a]	584.38
Water Year Types[b,c]	
Wet (32%)	286.39
Above Normal (16%)	841.97
Below Normal (13%)	904.26
Dry (24%)	705.33
Critical (15%)	456.18

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 6a-4. Annual SWP Total Generation

No Action Alternative 011319

Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,284.08
20%	5,824.89
30%	5,185.98
40%	4,353.40
50%	4,082.44
60%	3,463.96
70%	3,000.77
80%	2,541.22
90%	1,977.63
Long Term	
Full Simulation Period[a]	4,073.86
Water Year Types[b,c]	
Wet (32%)	6,021.83
Above Normal (16%)	4,422.83
Below Normal (13%)	3,772.55
Dry (24%)	2,854.12
Critical (15%)	1,784.30

Alternative 4 043019

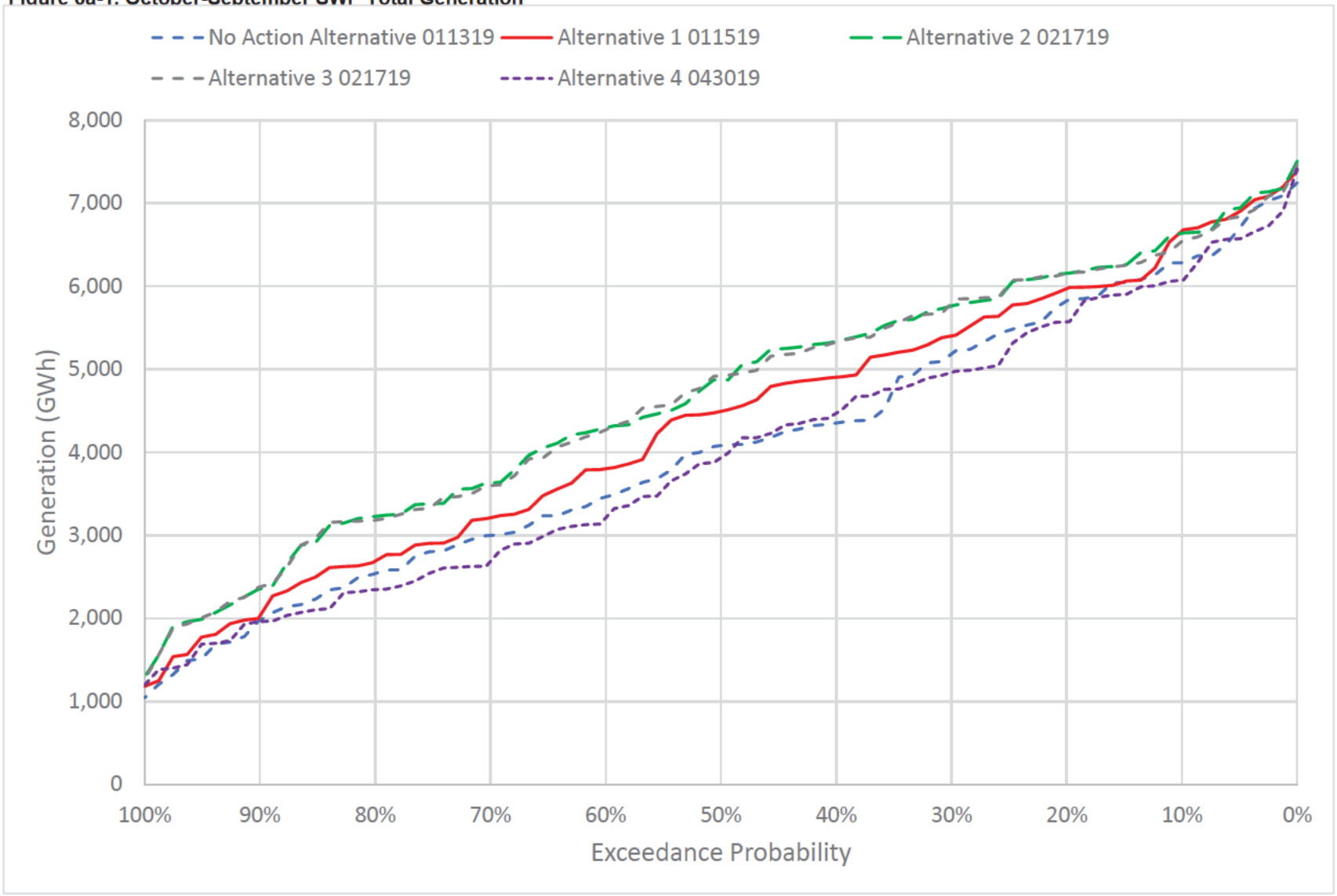
Statistic	Generation (GWh)
Probability of Exceedance	
10%	6,074.59
20%	5,572.99
30%	4,962.58
40%	4,471.88
50%	3,935.93
60%	3,211.86
70%	2,686.12
80%	2,347.67
90%	1,963.40
Long Term	
Full Simulation Period[a]	3,970.60
Water Year Types[b,c]	
Wet (32%)	5,870.61
Above Normal (16%)	4,412.76
Below Normal (13%)	3,757.51
Dry (24%)	2,643.68
Critical (15%)	1,781.76

Alternative 4 043019 minus No Action Alternative

Statistic	Generation (GWh)
Probability of Exceedance[a]	
10%	-209.49
20%	-251.90
30%	-223.40
40%	118.49
50%	-146.51
60%	-252.10
70%	-314.65
80%	-193.55
90%	-14.23
Long Term	
Full Simulation Period[a]	-103.26
Water Year Types[b,c]	
Wet (32%)	-151.21
Above Normal (16%)	-10.07
Below Normal (13%)	-15.04
Dry (24%)	-210.44
Critical (15%)	-2.54

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 6a-1. October-September SWP Total Generation



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 7a-1. Annual SWP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	10,582.90
20%	9,671.49
30%	8,884.03
40%	8,377.41
50%	7,442.86
60%	6,643.33
70%	5,829.12
80%	4,909.77
90%	3,533.14
Long Term	
Full Simulation Period[a]	7,303.93
Water Year Types[b,c]	
Wet (32%)	9,918.66
Above Normal (16%)	8,000.56
Below Normal (13%)	7,504.91
Dry (24%)	5,611.86
Critical (15%)	3,519.90

Alternative 1 011519

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	11,790.33
20%	11,083.62
30%	10,315.87
40%	9,863.44
50%	9,089.36
60%	7,879.63
70%	6,376.60
80%	5,438.63
90%	4,134.89
Long Term	
Full Simulation Period[a]	8,376.53
Water Year Types[b,c]	
Wet (32%)	11,029.32
Above Normal (16%)	9,682.99
Below Normal (13%)	8,990.52
Dry (24%)	6,360.49
Critical (15%)	4,010.72

Alternative 1 011519 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	1,207.42
20%	1,412.12
30%	1,431.84
40%	1,486.04
50%	1,646.49
60%	1,236.29
70%	547.48
80%	528.86
90%	601.76
Long Term	
Full Simulation Period[a]	1,072.60
Water Year Types[b,c]	
Wet (32%)	1,110.66
Above Normal (16%)	1,682.43
Below Normal (13%)	1,485.60
Dry (24%)	748.63
Critical (15%)	490.83

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 7a-2. Annual SWP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	10,582.90
20%	9,671.49
30%	8,884.03
40%	8,377.41
50%	7,442.86
60%	6,643.33
70%	5,829.12
80%	4,909.77
90%	3,533.14
Long Term	
Full Simulation Period[a]	7,303.93
Water Year Types[b,c]	
Wet (32%)	9,918.66
Above Normal (16%)	8,000.56
Below Normal (13%)	7,504.91
Dry (24%)	5,611.86
Critical (15%)	3,519.90

Alternative 2 021719

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	12,433.73
20%	12,076.18
30%	11,705.30
40%	11,301.89
50%	10,289.41
60%	9,518.76
70%	7,931.55
80%	7,223.37
90%	5,463.00
Long Term	
Full Simulation Period[a]	9,629.94
Water Year Types[b,c]	
Wet (32%)	11,928.61
Above Normal (16%)	11,241.84
Below Normal (13%)	10,395.90
Dry (24%)	7,947.54
Critical (15%)	5,005.14

Alternative 2 021719 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	1,850.83
20%	2,404.68
30%	2,821.26
40%	2,924.49
50%	2,846.55
60%	2,875.43
70%	2,102.42
80%	2,313.60
90%	1,929.86
Long Term	
Full Simulation Period[a]	2,326.01
Water Year Types[b,c]	
Wet (32%)	2,009.95
Above Normal (16%)	3,241.28
Below Normal (13%)	2,890.99
Dry (24%)	2,335.68
Critical (15%)	1,485.25

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 7a-3. Annual SWP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	10,582.90
20%	9,671.49
30%	8,884.03
40%	8,377.41
50%	7,442.86
60%	6,643.33
70%	5,829.12
80%	4,909.77
90%	3,533.14
Long Term	
Full Simulation Period[a]	7,303.93
Water Year Types[b,c]	
Wet (32%)	9,918.66
Above Normal (16%)	8,000.56
Below Normal (13%)	7,504.91
Dry (24%)	5,611.86
Critical (15%)	3,519.90

Alternative 3 021719

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	12,332.32
20%	11,970.53
30%	11,593.11
40%	11,124.81
50%	10,320.72
60%	9,524.98
70%	7,905.88
80%	7,165.26
90%	5,481.35
Long Term	
Full Simulation Period[a]	9,556.56
Water Year Types[b,c]	
Wet (32%)	11,809.01
Above Normal (16%)	11,168.22
Below Normal (13%)	10,374.46
Dry (24%)	7,894.82
Critical (15%)	4,950.09

Alternative 3 021719 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	1,749.41
20%	2,299.04
30%	2,709.08
40%	2,747.40
50%	2,877.86
60%	2,881.65
70%	2,076.75
80%	2,255.49
90%	1,948.21
Long Term	
Full Simulation Period[a]	2,252.63
Water Year Types[b,c]	
Wet (32%)	1,890.36
Above Normal (16%)	3,167.67
Below Normal (13%)	2,869.55
Dry (24%)	2,282.96
Critical (15%)	1,430.19

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 7a-4. Annual SWP Total Energy Use

No Action Alternative 011319

Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	10,582.90
20%	9,671.49
30%	8,884.03
40%	8,377.41
50%	7,442.86
60%	6,643.33
70%	5,829.12
80%	4,909.77
90%	3,533.14
Long Term	
Full Simulation Period[a]	7,303.93
Water Year Types[b,c]	
Wet (32%)	9,918.66
Above Normal (16%)	8,000.56
Below Normal (13%)	7,504.91
Dry (24%)	5,611.86
Critical (15%)	3,519.90

Alternative 4 043019

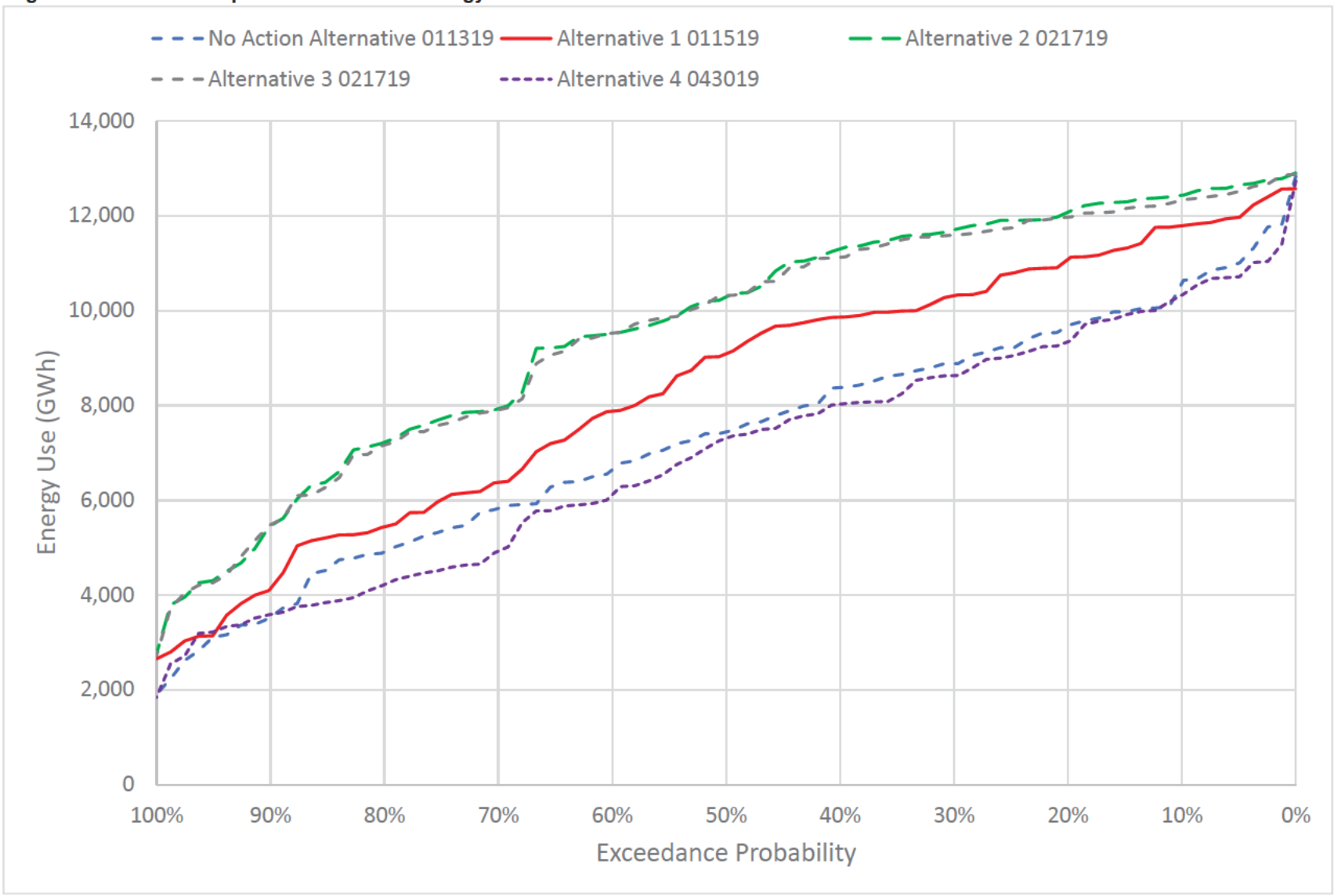
Statistic	Energy Use (GWh)
Probability of Exceedance	
10%	10,329.96
20%	9,344.50
30%	8,631.45
40%	8,028.49
50%	7,307.78
60%	6,117.49
70%	4,927.52
80%	4,220.65
90%	3,591.25
Long Term	
Full Simulation Period[a]	6,971.85
Water Year Types[b,c]	
Wet (32%)	9,732.14
Above Normal (16%)	7,748.28
Below Normal (13%)	7,040.13
Dry (24%)	4,919.35
Critical (15%)	3,508.37

Alternative 4 043019 minus No Action Alternative

Statistic	Energy Use (GWh)
Probability of Exceedance[a]	
10%	-252.95
20%	-326.99
30%	-252.58
40%	-348.92
50%	-135.08
60%	-525.85
70%	-901.61
80%	-689.12
90%	58.11
Long Term	
Full Simulation Period[a]	-332.08
Water Year Types[b,c]	
Wet (32%)	-186.52
Above Normal (16%)	-252.28
Below Normal (13%)	-464.79
Dry (24%)	-692.51
Critical (15%)	-11.53

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 7a-1. October-September SWP Total Energy Use



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 8a-1. Annual SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-1,713.81
20%	-2,467.17
30%	-2,652.72
40%	-2,910.10
50%	-3,151.25
60%	-3,440.27
70%	-3,843.79
80%	-4,302.08
90%	-4,614.93
Long Term	
Full Simulation Period[a]	-3,230.07
Water Year Types[b,c]	
Wet (32%)	-3,896.83
Above Normal (16%)	-3,577.73
Below Normal (13%)	-3,732.36
Dry (24%)	-2,757.74
Critical (15%)	-1,735.60

Alternative 1 011519

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-2,172.24
20%	-2,700.65
30%	-3,185.62
40%	-3,894.36
50%	-4,331.72
60%	-4,691.95
70%	-4,938.81
80%	-5,149.85
90%	-5,480.04
Long Term	
Full Simulation Period[a]	-4,027.64
Water Year Types[b,c]	
Wet (32%)	-4,859.72
Above Normal (16%)	-4,778.14
Below Normal (13%)	-4,690.09
Dry (24%)	-3,261.34
Critical (15%)	-2,081.69

Alternative 1 011519 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-458.43
20%	-233.48
30%	-532.90
40%	-984.26
50%	-1,180.47
60%	-1,251.69
70%	-1,095.02
80%	-847.77
90%	-865.12
Long Term	
Full Simulation Period[a]	-797.57
Water Year Types[b,c]	
Wet (32%)	-962.89
Above Normal (16%)	-1,200.41
Below Normal (13%)	-957.73
Dry (24%)	-503.60
Critical (15%)	-346.10

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 8a-2. Annual SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-1,713.81
20%	-2,467.17
30%	-2,652.72
40%	-2,910.10
50%	-3,151.25
60%	-3,440.27
70%	-3,843.79
80%	-4,302.08
90%	-4,614.93
Long Term	
Full Simulation Period[a]	-3,230.07
Water Year Types[b,c]	
Wet (32%)	-3,896.83
Above Normal (16%)	-3,577.73
Below Normal (13%)	-3,732.36
Dry (24%)	-2,757.74
Critical (15%)	-1,735.60

Alternative 2 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-3,122.79
20%	-3,974.67
30%	-4,486.19
40%	-4,917.49
50%	-5,192.21
60%	-5,454.32
70%	-5,741.49
80%	-6,132.43
90%	-6,450.53
Long Term	
Full Simulation Period[a]	-4,950.59
Water Year Types[b,c]	
Wet (32%)	-5,578.70
Above Normal (16%)	-5,960.67
Below Normal (13%)	-5,712.60
Dry (24%)	-4,377.51
Critical (15%)	-2,752.04

Alternative 2 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-1,408.98
20%	-1,507.50
30%	-1,833.47
40%	-2,007.38
50%	-2,040.96
60%	-2,014.05
70%	-1,897.70
80%	-1,830.36
90%	-1,835.60
Long Term	
Full Simulation Period[a]	-1,720.52
Water Year Types[b,c]	
Wet (32%)	-1,681.87
Above Normal (16%)	-2,382.94
Below Normal (13%)	-1,980.24
Dry (24%)	-1,619.77
Critical (15%)	-1,016.44

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 8a-3. Annual SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-1,713.81
20%	-2,467.17
30%	-2,652.72
40%	-2,910.10
50%	-3,151.25
60%	-3,440.27
70%	-3,843.79
80%	-4,302.08
90%	-4,614.93
Long Term	
Full Simulation Period[a]	-3,230.07
Water Year Types[b,c]	
Wet (32%)	-3,896.83
Above Normal (16%)	-3,577.73
Below Normal (13%)	-3,732.36
Dry (24%)	-2,757.74
Critical (15%)	-1,735.60

Alternative 3 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-3,102.57
20%	-3,941.96
30%	-4,339.02
40%	-4,867.11
50%	-5,205.59
60%	-5,411.52
70%	-5,734.02
80%	-6,069.29
90%	-6,255.16
Long Term	
Full Simulation Period[a]	-4,898.32
Water Year Types[b,c]	
Wet (32%)	-5,500.79
Above Normal (16%)	-5,903.42
Below Normal (13%)	-5,697.65
Dry (24%)	-4,335.37
Critical (15%)	-2,709.60

Alternative 3 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-1,388.76
20%	-1,474.79
30%	-1,686.30
40%	-1,957.01
50%	-2,054.34
60%	-1,971.26
70%	-1,890.22
80%	-1,767.21
90%	-1,640.23
Long Term	
Full Simulation Period[a]	-1,668.24
Water Year Types[b,c]	
Wet (32%)	-1,603.96
Above Normal (16%)	-2,325.70
Below Normal (13%)	-1,965.29
Dry (24%)	-1,577.62
Critical (15%)	-974.01

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 8a-4. Annual SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-1,713.81
20%	-2,467.17
30%	-2,652.72
40%	-2,910.10
50%	-3,151.25
60%	-3,440.27
70%	-3,843.79
80%	-4,302.08
90%	-4,614.93
Long Term	
Full Simulation Period[a]	-3,230.07
Water Year Types[b,c]	
Wet (32%)	-3,896.83
Above Normal (16%)	-3,577.73
Below Normal (13%)	-3,732.36
Dry (24%)	-2,757.74
Critical (15%)	-1,735.60

Alternative 4 043019

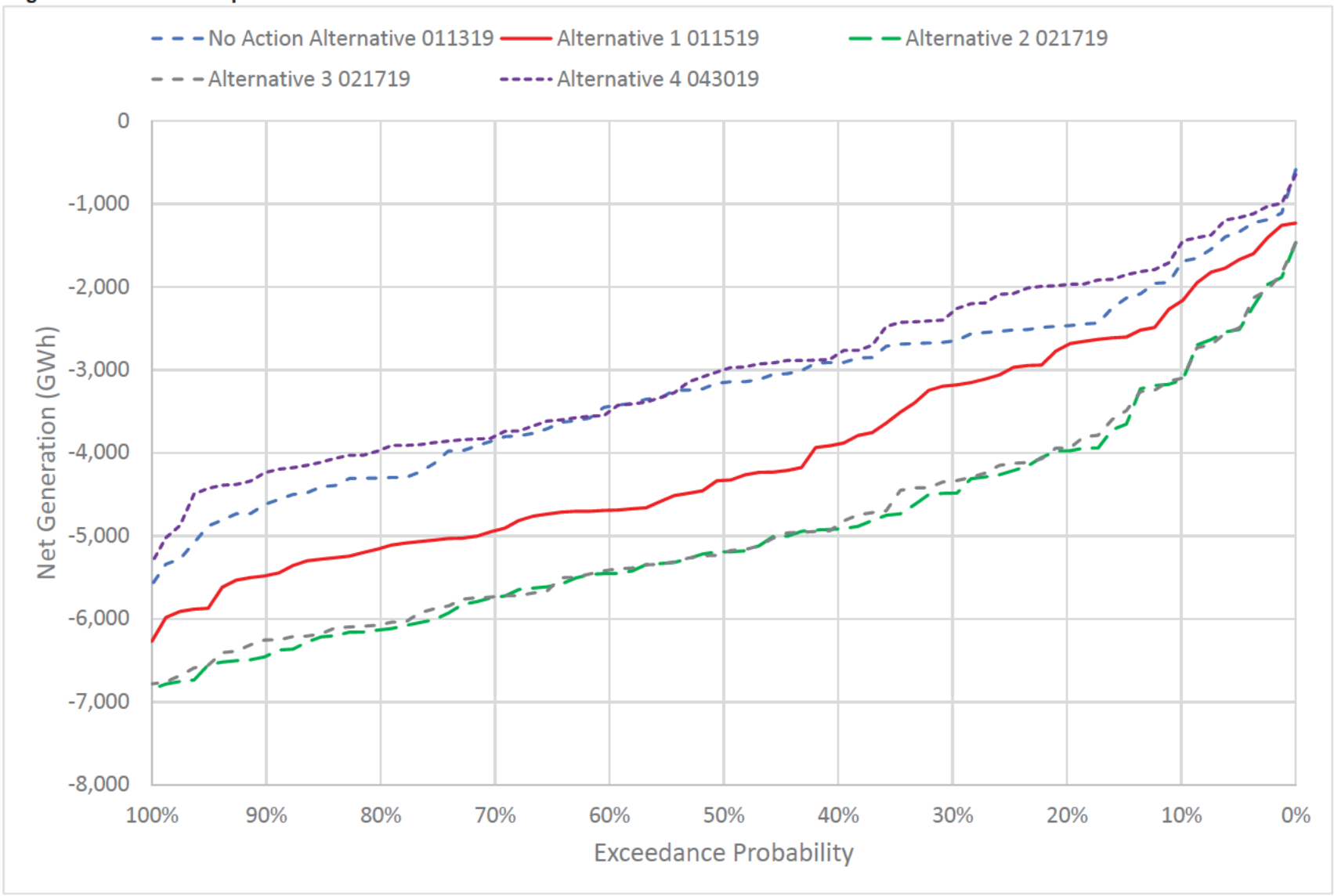
Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-1,471.41
20%	-1,970.58
30%	-2,302.01
40%	-2,808.27
50%	-2,999.34
60%	-3,501.82
70%	-3,799.47
80%	-3,963.69
90%	-4,234.16
Long Term	
Full Simulation Period[a]	-3,001.26
Water Year Types[b,c]	
Wet (32%)	-3,861.53
Above Normal (16%)	-3,335.52
Below Normal (13%)	-3,282.62
Dry (24%)	-2,275.67
Critical (15%)	-1,726.61

Alternative 4 043019 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	242.40
20%	496.59
30%	350.71
40%	101.83
50%	151.91
60%	-61.55
70%	44.32
80%	338.38
90%	380.76
Long Term	
Full Simulation Period[a]	228.82
Water Year Types[b,c]	
Wet (32%)	35.30
Above Normal (16%)	242.21
Below Normal (13%)	449.74
Dry (24%)	482.07
Critical (15%)	8.99

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 8a-1. October-September SWP Net Generation



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.

Table 9a-1. Annual CVP and SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	1,395.72
20%	983.07
30%	634.49
40%	392.28
50%	218.67
60%	58.11
70%	-350.33
80%	-556.33
90%	-1,359.86
Long Term	
Full Simulation Period[a]	96.33
Water Year Types[b,c]	
Wet (32%)	797.32
Above Normal (16%)	172.51
Below Normal (13%)	-812.32
Dry (24%)	-319.17
Critical (15%)	20.43

Alternative 1 011519

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	306.00
20%	54.68
30%	-266.97
40%	-544.14
50%	-723.73
60%	-887.79
70%	-1,189.16
80%	-1,645.84
90%	-2,109.97
Long Term	
Full Simulation Period[a]	-810.40
Water Year Types[b,c]	
Wet (32%)	-425.04
Above Normal (16%)	-1,183.43
Below Normal (13%)	-1,742.08
Dry (24%)	-893.48
Critical (15%)	-248.71

Alternative 1 011519 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-1,089.72
20%	-928.39
30%	-901.46
40%	-936.42
50%	-942.40
60%	-945.90
70%	-838.84
80%	-1,089.51
90%	-750.11
Long Term	
Full Simulation Period[a]	-906.73
Water Year Types[b,c]	
Wet (32%)	-1,222.36
Above Normal (16%)	-1,355.94
Below Normal (13%)	-929.76
Dry (24%)	-574.31
Critical (15%)	-269.14

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 9a-2. Annual CVP and SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	1,395.72
20%	983.07
30%	634.49
40%	392.28
50%	218.67
60%	58.11
70%	-350.33
80%	-556.33
90%	-1,359.86
Long Term	
Full Simulation Period[a]	96.33
Water Year Types[b,c]	
Wet (32%)	797.32
Above Normal (16%)	172.51
Below Normal (13%)	-812.32
Dry (24%)	-319.17
Critical (15%)	20.43

Alternative 2 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-366.57
20%	-904.18
30%	-1,211.69
40%	-1,465.01
50%	-1,678.48
60%	-2,048.84
70%	-2,422.66
80%	-2,812.30
90%	-3,102.21
Long Term	
Full Simulation Period[a]	-1,761.63
Water Year Types[b,c]	
Wet (32%)	-1,168.73
Above Normal (16%)	-2,454.15
Below Normal (13%)	-2,754.72
Dry (24%)	-2,031.53
Critical (15%)	-935.83

Alternative 2 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-1,762.29
20%	-1,887.25
30%	-1,846.18
40%	-1,857.30
50%	-1,897.15
60%	-2,106.96
70%	-2,072.33
80%	-2,255.98
90%	-1,742.36
Long Term	
Full Simulation Period[a]	-1,857.96
Water Year Types[b,c]	
Wet (32%)	-1,966.06
Above Normal (16%)	-2,626.66
Below Normal (13%)	-1,942.39
Dry (24%)	-1,712.36
Critical (15%)	-956.26

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 9a-3. Annual CVP and SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	1,395.72
20%	983.07
30%	634.49
40%	392.28
50%	218.67
60%	58.11
70%	-350.33
80%	-556.33
90%	-1,359.86
Long Term	
Full Simulation Period[a]	96.33
Water Year Types[b,c]	
Wet (32%)	797.32
Above Normal (16%)	172.51
Below Normal (13%)	-812.32
Dry (24%)	-319.17
Critical (15%)	20.43

Alternative 3 021719

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	-359.47
20%	-827.18
30%	-1,208.42
40%	-1,407.15
50%	-1,583.27
60%	-2,032.59
70%	-2,239.56
80%	-2,734.28
90%	-3,105.34
Long Term	
Full Simulation Period[a]	-1,703.22
Water Year Types[b,c]	
Wet (32%)	-1,083.52
Above Normal (16%)	-2,393.79
Below Normal (13%)	-2,737.67
Dry (24%)	-1,974.64
Critical (15%)	-897.14

Alternative 3 021719 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	-1,755.19
20%	-1,810.25
30%	-1,842.91
40%	-1,799.43
50%	-1,801.94
60%	-2,090.70
70%	-1,889.23
80%	-2,177.96
90%	-1,745.48
Long Term	
Full Simulation Period[a]	-1,799.55
Water Year Types[b,c]	
Wet (32%)	-1,880.85
Above Normal (16%)	-2,566.30
Below Normal (13%)	-1,925.35
Dry (24%)	-1,655.46
Critical (15%)	-917.58

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Table 9a-4. Annual CVP and SWP Net Generation

No Action Alternative 011319

Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	1,395.72
20%	983.07
30%	634.49
40%	392.28
50%	218.67
60%	58.11
70%	-350.33
80%	-556.33
90%	-1,359.86
Long Term	
Full Simulation Period[a]	96.33
Water Year Types[b,c]	
Wet (32%)	797.32
Above Normal (16%)	172.51
Below Normal (13%)	-812.32
Dry (24%)	-319.17
Critical (15%)	20.43

Alternative 4 043019

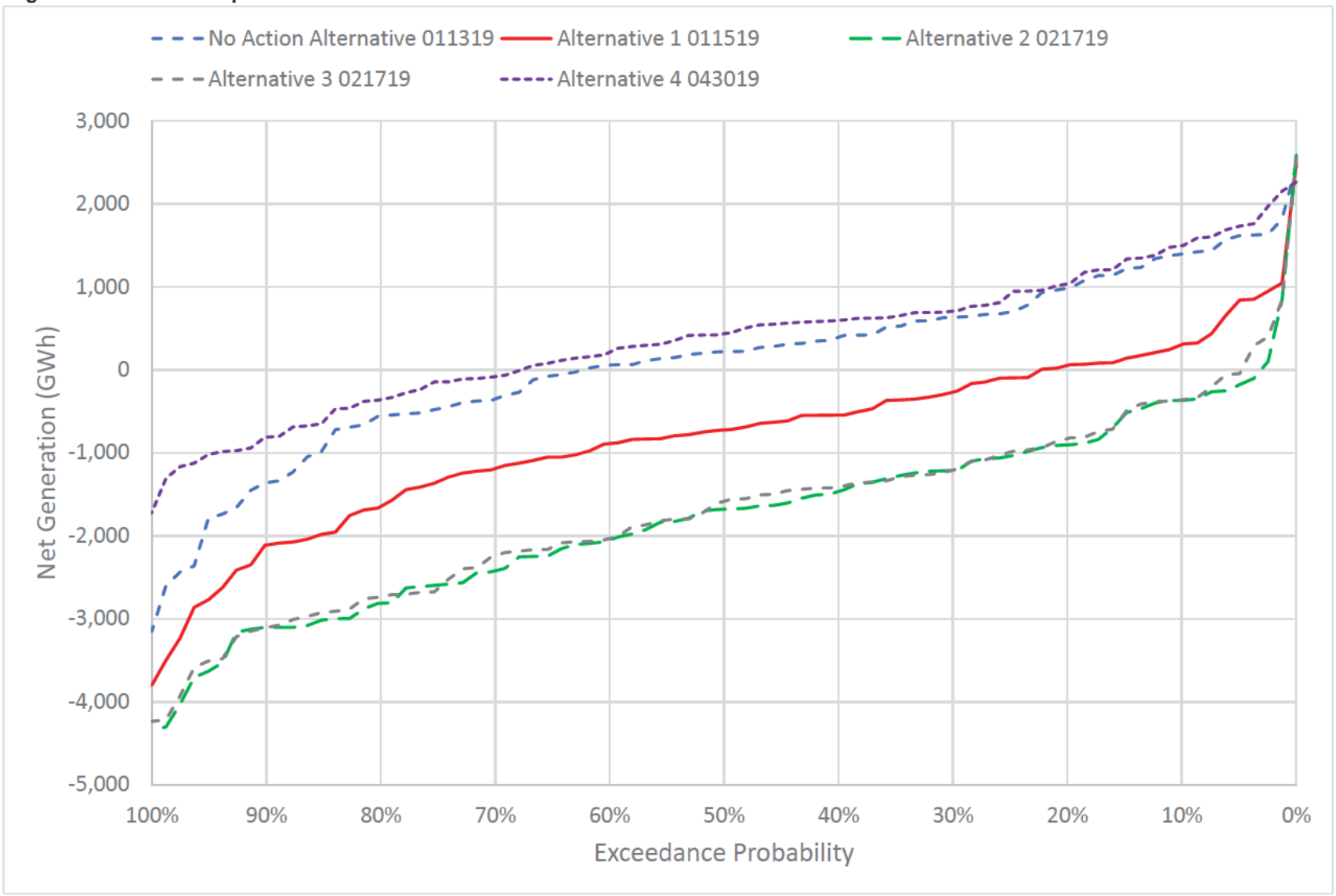
Statistic	Net Generation (GWh)
Probability of Exceedance	
10%	1,497.18
20%	1,038.47
30%	707.51
40%	597.31
50%	435.19
60%	212.49
70%	-80.67
80%	-357.98
90%	-810.41
Long Term	
Full Simulation Period[a]	370.80
Water Year Types[b,c]	
Wet (32%)	680.25
Above Normal (16%)	479.18
Below Normal (13%)	-216.53
Dry (24%)	292.10
Critical (15%)	252.45

Alternative 4 043019 minus No Action Alternative

Statistic	Net Generation (GWh)
Probability of Exceedance[a]	
10%	101.46
20%	55.40
30%	73.02
40%	205.03
50%	216.52
60%	154.38
70%	269.66
80%	198.35
90%	549.45
Long Term	
Full Simulation Period[a]	274.47
Water Year Types[b,c]	
Wet (32%)	-117.07
Above Normal (16%)	306.67
Below Normal (13%)	595.79
Dry (24%)	611.27
Critical (15%)	232.02

a Based on the 82-year simulation period.
b As defined by the Sacramento Valley 40-30-30 Index Water Year Hydrologic Classification (SWRCB D-1641, 1999).
c These results are displayed with calendar year - year type sorting.
d All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
e These are draft results meant for qualitative analysis and are subject to revision

Figure 9a-1. October-September CVP and SWP Net Generation



*All scenarios are simulated at ELT (Early Long-Term) Q5 with 2025 climate change and 15 cm sea level rise.
*These are draft results meant for qualitative analysis and are subject to revision.