

Reclamation Manual

Directives and Standards

Procedures for Computing Interest on Investment (IOI) for Investments Repaid from Revenue

1. **Average Unpaid Investment Balance Method.** This method recognizes that the Bureau of Reclamation collects and deposits revenues from power and municipal and industrial water sales to the Department of the Treasury monthly and therefore, will consider monthly net revenues in the computation of the IOI.
 - A. To eliminate the need for monthly computations, this method for computing annual IOI presumes the following:
 - (1) The application of revenues to operation and maintenance and other expenses (except plant depreciation) occurs monthly.
 - (2) The remaining balance or net revenue is available monthly for repayment of the unpaid investment.
 - (3) Net revenues essentially flow uniformly throughout the year. For cases in which this assumption is unreasonable, compute net revenues and IOI monthly.
 - B. The priority of net revenue application is as follows:
 - (1) to the current year's IOI on the total Federal investment,
 - (2) to the unpaid prior year expenses (deficits), then
 - (3) to the amortization of investment in descending order of interest rates, except that Reclamation will first apply net revenues to any required repayment of investment.
2. **IOI Computations.**
 - A. Compute an initial estimate of annual IOI on the beginning of the fiscal year unpaid investment balances for each of the interest-bearing investments.
 - (1) **Investments Fully Repaid.** Re-compute the IOI expense on one half of the investment balance outstanding at the beginning of the year because we presume revenues, and therefore repayments, flow uniformly throughout the year.
 - (2) **Investments Partially Repaid.** Re-compute the IOI by modifying the investment balance from a beginning of the year unpaid balance to an average

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unpaid investment balance by using the formula $I = (U - ((R - U_i) / 2)) * i$
where:

- (a) I = recomputed IOI on the highest interest-bearing investment for the fiscal year.
- (b) U = the beginning unpaid balance of the highest interest-bearing investment due for partial repayment.
- (c) R = the annual net revenues after deducting (1) IOI not repaid during the fiscal year and (2) IOI and principal on investments fully repaid during the fiscal year.
- (d) U_i = the initial estimate of annual IOI per Paragraph 2.A. above.
- (e) i = the annual interest rate.

(3) Illustration of the Interest Computations. See Figure 1 below.

- B. After deducting the total IOI computed in Paragraph 2.A. above from net revenues, apply the remaining net revenues to the amortization of the investment bearing the highest interest rate. Re-compute the IOI expense from Paragraph 2.A. above whenever revenues are sufficient to fully and/or partially repay any investments.
- C. Do not modify the IOI expense for investments not repaid during the fiscal year as no reduction in the outstanding investment balance has occurred.
- D. If net revenues do not flow in a reasonably uniform manner during the fiscal year, determine the net revenues for each month, and the IOI and repayment of principal computed on a monthly basis as follows:
 - (1) Compute 1 month's IOI on all unpaid investment at the beginning of the month.
 - (2) Deduct that IOI from the monthly net revenues.
 - (3) Apply the excess net revenues to the highest interest-bearing investment.
- E. If net revenues are negative, charge additional IOI at one half of the project interest rate on the deficit and the unpaid annual IOI due on the Federal investments in accordance with the Reclamation Project Act of 1939, section 6. Reclamation will defer this additional IOI, the annual IOI due on the investment, and the deficit until net revenues are available. See Paragraph 1.B. above for the application of revenue. Reclamation will charge IOI at the project interest rate until receipt of repayment through net revenues.

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Figure 1

Investment Project, Wyoming Interest on Investment

		1	2	3	4	5	6	7	8
Investment Component		Interest rate (i)	Unpaid investment @ 10/1/91 (U)	Initial estimate of annual interest – (col 1x2) (Ui)	Interest adjustment for principal repayments	Interest expense for year = 1 (col 3-4)	Revenue applied to repayment	Net revenue applied to int. & repayment (col 5+6) (R)	Unpaid investment @ 9/30/92 (col 2-6)
X	Red River Power plant Original cost	3.00%	\$20,000,000	\$600,000	\$0 ¹	\$600,000	\$0	\$600,000	\$20,000,000
Y	Addition FY 1975	4.00%	5,000,000	200,000	13,700 ²	186,300	698,700 ³	885,000	4,301,300
Z	Replacement FY 1980	6.00%	500,000	30,000	15,000 ⁴	15,000	500,000	515,000	0
	TOTALS		\$25,500,000	\$830,000	\$28,700	\$801,300	\$1,198,700	\$2,000,000	\$24,301,300

ASSUMPTIONS	
Annual gross revenues	\$10,000,000
Annual expenses	8,000,000
Net revenues	\$2,000,000

CALCULATIONS	
Revenues	\$2,000,000
Less: Repayment & interest	
Invest Z (col 7)	\$515,000
Int. on invest X	600,000
	<u>1,115,000</u>
	\$885,000

$$I = (U - ((R - U_i) / 2)) * i$$

$$I = (5,000,000 - ((885,000 - 200,000) / 2)) * .04 = 186,300$$

¹Investment X - Revenues not available for any repayment.

²Investment Y - Estimate of annual interest less actual expense for the year. (Col 3-5)

³Col 7-5.

⁴Investment Z - Fully Repaid. Interest for ½ year.