

BENEFIT-COST STUDIES

SEP - 1963

ASSUMPTIONS

- (1) In studies excluding the High Arrow project, the conflict which would exist in operating Mica for at-site power and downstream benefits has been ignored.
- (2) It has been assumed that all the project positions studied would be acceptable to the three governments concerned.
- (3) West Kootenay benefits are not considered.
- (4) Downstream benefits are sold within the United States at 2.5 mills per kwh and \$8.00 per kw (Canadian funds).
- (5) Mica at-site generation is transmitted to Vancouver for sale.
- (6) Value of power at Vancouver at 345 kv terminals is 3.0 mills per kwh and \$8.20 per kw (4.6 mills per kwh at 60% load factor).
- (7) No reduction in benefits due to time lost in possible renegotiation.
- (8) Mica storage commitment to Treaty operation is limited to 7.0 million ac-ft. (Consistent with average at-site use).
- (9) Most recent project cost estimates were adopted.

Study No.	Projects	Credit Position	Benefit-Cost Ratio
1 (a)	High Arrow	<u>1st ADDED</u> To U.S. Base System	1.8
(b)	High Arrow	<u>2nd ADDED</u> To Duncan Lake	1.6
2 (a)	Mica Storage Only	<u>1st ADDED</u> To U.S. Base System	1.1
(b)	Mica Storage Only	<u>2nd ADDED</u> After Duncan	1.0
(c)	Mica Storage Only	<u>2nd ADDED</u> After Duncan & Bruces Eddy	0.9
(d)	Mica Storage Only	<u>2nd ADDED</u> After Duncan, Bruces Eddy and High Mountain Sheep	0.8
(e)	Mica Storage Only	<u>2nd ADDED</u> After Duncan, Bruces Eddy, High Mtn. Sheep & Knowles	0.6
3 (a)	Mica Storage + Generation	<u>1st ADDED</u> To U.S. Base System	1.2
(b)	Mica Storage + Generation	<u>2nd ADDED</u> After Duncan	1.1
(c)	Mica Storage + Generation	<u>2nd ADDED</u> After Duncan & Bruces Eddy	1.1
(d)	Mica Storage + Generation	<u>2nd ADDED</u> After Duncan, Bruces Eddy & High Mountain Sheep	1.0
(e)	Mica Storage + Generation	<u>2nd ADDED</u> After Duncan, Bruces Eddy High Mtn. Sheep & Knowles	0.9