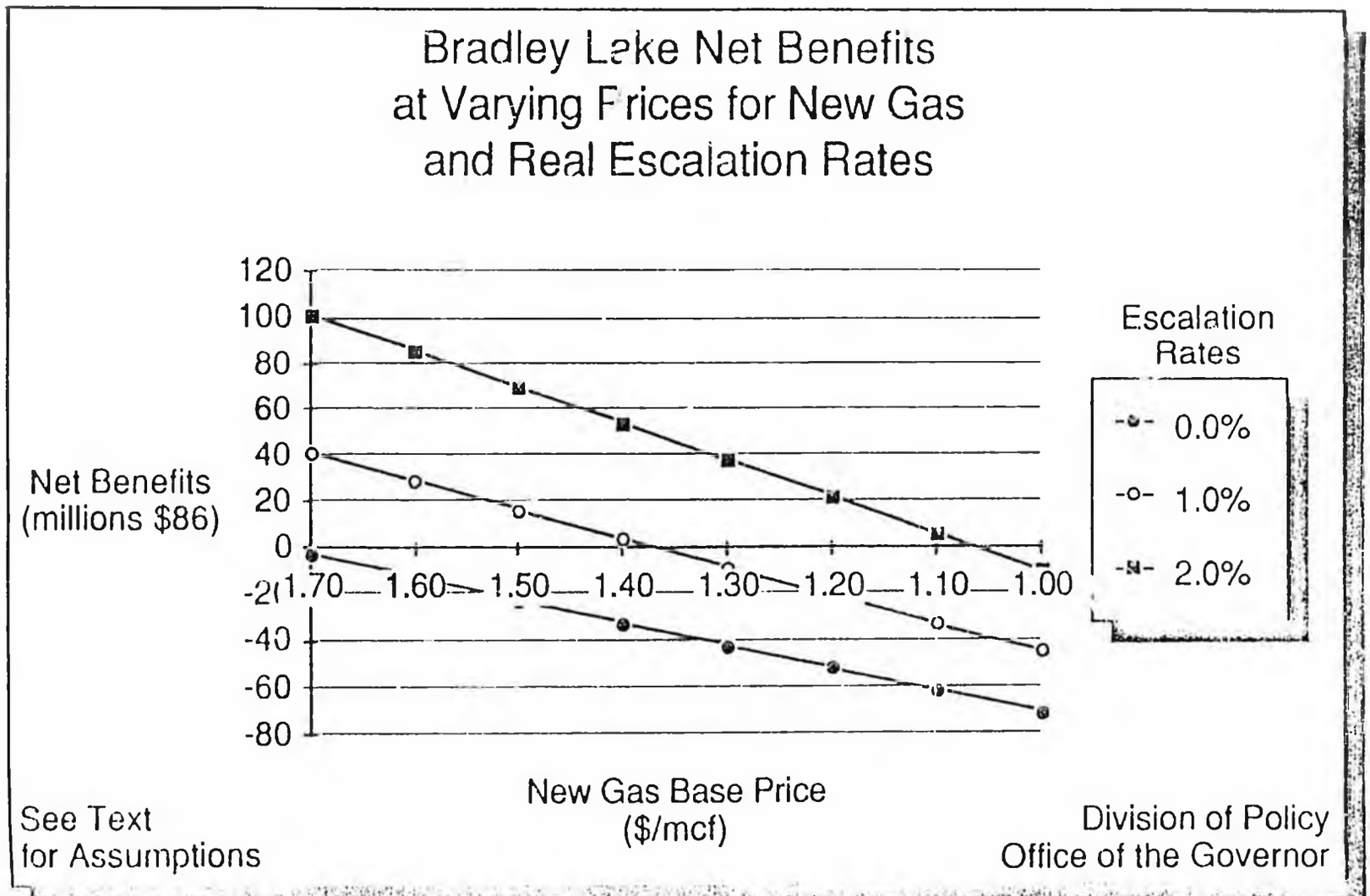
ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672 581
5009 HRES SB 159 - SB 167

FIGURE 1


Bradley Lake Net Benefits
at Varying Prices for New Gas
and Real Escalation Rates
Net Benefits
(millions $86)
120
100
80
60
40
20
0
-20
-40
-60
-80
1.70
1.60
1.50
1.40
1.30
1.20
1.10
1.00
New Gas Base Price
($/mcf)
Escalation
Rates
0.0%
1.0%
2.0%
See Text
for Assumptions
Division of Policy
Office of the Governor

ATTACHMENT C

TABLE C.1 BASE CASE SCENARIO:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Base Capital Cost Excluding IDC ($1986/net kw):	$400												
		1987	0.0							$1.63			
Capacity (net kw):	90,000	1988	0.0							1.66			
		1989	18.0							1.70			
Construction Period (years):	2	1990	18.0	4.1						1.73			
Total Bonds:	$48.6	1991		4.0	1.0	0.5	7.5	13.0	3.5	1.77	2.0	20.2	22.2
Bond Term (yrs):	20	1992		3.8	1.0	0.5	7.7	13.0	3.5	1.80	2.0	19.3	21.3
Long-Term Interest Rate:	8.0%	1993		3.6	1.0	0.5	7.8	13.0	3.5	1.84	2.0	18.5	20.5
Bond Payment (1989$):	$4.9	1994		3.5	1.0	0.5	8.0	13.0	3.5	1.87	2.0	17.7	19.7
		1995		3.3	1.0	0.5	8.1	13.0	3.5	1.91	2.0	16.9	18.9
Inflation Rate:	4.5%	1996		3.2	1.0	0.5	8.3	13.0	3.5	1.95	2.0	16.2	18.2
Reinvest Rate:	6.0%	1997		3.0	1.0	0.5	8.4	13.0	3.5	1.99	2.0	15.5	17.5
Discount Rate:	3.5%	1998		2.9	1.0	0.5	8.6	13.1	3.5	2.03	2.0	14.8	16.8
		1999		2.8	1.0	0.5	8.8	13.1	3.6	2.07	2.0	14.2	16.2
		2000		2.7	1.0	0.5	9.0	13.2	3.6	2.11	2.0	13.6	15.6
		2001		2.6	1.0	0.5	9.1	13.2	3.6	2.15	2.0	13.0	15.0
Fixed O&M Cost		2002		2.4	1.0	0.5	9.3	13.3	3.6	2.20	2.0	12.4	14.4
($1986/kw/yr):	$11.25	2003		2.3	1.0	0.5	9.5	13.4	3.6	2.24	2.0	11.9	13.9
		2004		2.2	1.0	0.5	9.7	13.5	3.6	2.29	2.0	11.4	13.4
Variable O&M Cost		2005		2.1	1.0	0.5	9.9	13.6	3.7	2.33	2.0	10.9	12.9
($1986/kwh):	$0.0014	2006		2.1	1.0	0.5	10.1	13.7	3.7	2.38	2.0	10.4	12.4
		2007		2.0	1.0	0.5	10.3	13.8	3.7	2.43	2.0	10.0	12.0
New Turbine Heat Rate		2008		1.9	1.0	0.5	10.5	13.9	3.8	2.47	2.0	9.5	11.5
(BTU/kwh):	11,500	2009		1.8	1.0	0.5	10.7	14.0	3.8	2.52	2.0	9.1	11.1
		2010		1.7	1.0	0.5	10.9	14.2	3.8	2.57	2.0	8.7	10.7
Wellhead Gas Price		2011		1.6	1.0	0.5	11.1	14.3	3.9	2.62	2.0	8.4	10.4
($1986/MMBTU):	$1.60	2012		1.6	1.0	0.5	11.4	14.5	3.9	2.68	2.0	8.0	10.0
Gas Delivery ($86):	$0.00	2013		1.5	1.0	0.5	11.6	14.6	4.0	2.73	2.0	7.7	9.7
Real Wellhead Price		2014		1.4	1.0	0.5	11.8	14.8	4.0	2.79	2.0	7.3	9.3
Escalation Rate:	2.0%	2015		1.4	1.0	0.5	12.1	15.0	4.1	2.84	2.0	7.0	9.0
		2016		1.3	1.0	0.5	12.3	15.2	4.1	2.90	2.0	6.7	8.7

TABLE C.1 BASE CASE SCENARIO:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Cash Flow for Base		2017		1.3	1.0	0.5	12.6	15.3	4.2	2.96	2.0	6.4	8.4
Construction Cost:		2018		1.2	1.0	0.5	12.8	15.5	4.2	3.02	2.0	6.1	8.1
1987	0%	2019		1.2	1.0	0.5	13.1	15.7	4.3	3.08	2.0	5.9	7.9
1988	0%	2020		1.1	1.0	0.5	13.3	16.0	4.3	3.14	2.0	5.6	7.6
1989	50%	2021		1.1	1.0	0.5	13.6	16.2	4.4	3.20	2.0		2.0
1990	50%	2022		1.0	1.0	0.5	13.9	16.4	4.4	3.26	2.0		2.0
		2023		1.0	1.0	0.5	14.1	16.6	4.5	3.33	2.0		2.0
		2024		0.9	1.0	0.5	14.4	16.9	4.6	3.40	2.0		2.0
		2025		0.9	1.0	0.5	14.7	17.1	4.6	3.46	2.0		2.0
Load Factor:	47%	2026		0.9	1.0	0.5	15.0	17.4	4.7	3.53	2.0		2.0
Annual Energy (gwh):	369.2	2027		0.8	1.0	0.5	15.3	17.6	4.8	3.60	2.0		2.0
Transmission Cost		2028		0.8	1.0	0.5	15.6	17.9	4.9	3.68	2.0		2.0
($1986 Millions):	$0.0	2029		0.7	1.0	0.5	15.9	18.2	4.9	3.75	2.0		2.0
		2030		0.7	1.0	0.5	16.2	18.5	5.0	3.82	2.0		2.0
BRADLEY LAKE		2031		0.7	1.0	0.5	16.6	18.8	5.1	3.90	2.0		2.0
Cost to Complete:	$283.0	2032		0.7	1.0	0.5	16.9	19.1	5.2	3.98	2.0		2.0
Debt Service (30 yr):	$25.1	2033		0.6	1.0	0.5	17.2	19.4	5.3	4.06	2.0		2.0
		2034		0.6	1.0	0.5	17.6	19.7	5.3	4.14	2.0		2.0
NP COST GAS	$300.4	2035		0.6	1.0	0.5	17.9	20.0	5.4	4.22	2.0		2.0
+ term & site restoration	$30.0	2036		0.5	1.0	0.5	18.[illegible]	20.4	5.5	4.31	2.0		2.0
NP COST GAS	$330.4	2037		0.5	1.0	0.5	18.7	20.7	5.6	4.39	2.0		2.0
		2038		0.5	1.0	0.5	19.0	21.1	5.7	4.48	2.0		2.0
NP COST BRADLEY	$244.6	2039		0.5	1.0	0.5	19.4	21.4	5.8	4.57	2.0		2.0
NET SAVINGS BRADLEY	$85.8	2040		0.5	1.0	0.5	19.8	21.8	5.9	4.66	2.0		2.0

NOTE: The analysis is based on a model originally developed by the Alaska Power Authority.

Prepared by the House Research Agency, March 1987 (Newbragas; 861217-29).

TABLE C.2 BASE CASE SCENARIO UNDER REVISED DEMAND FORECAST:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	FUEL SAVINGS ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Base Capital Cost Excluding IDC ($1986/net kw):	$400													
		1987	0.0								$1.63			
Capacity (net kw):	90,000	1988	0.0								1.66			
		1989	18.0								1.70			
Construction Period (years):	2	1990	18.0	4.1							1.73			
Total Bonds:	$48.6	1991		4.0	1.0	0.5	7.5	2.6	10.4	2.8	1.77	2.0	20.2	19.6
Bond Term (yrs):	20	1992		3.8	1.0	0.5	7.7	2.7	10.3	2.8	1.80	2.0	19.3	18.6
Long-Term Interest Rate:	8.0%	1993		3.6	1.0	0.5	7.8	2.7	10.3	2.8	1.84	2.0	18.5	17.8
Bond Payment (1989$):	$4.9	1994		3.5	1.0	0.5	8.0	2.8	10.2	2.8	1.87	2.0	17.7	16.9
		1995		3.3	1.0	0.5	8.1	2.8	10.2	2.7	1.91	2.0	16.9	16.1
Inflation Rate:	4.5%	1996		3.2	1.0	0.5	8.3	2.9	10.1	2.7	1.95	2.0	16.2	15.3
Reinvest Rate:	6.0%	1997		3.0	1.0	0.5	8.4	2.9	10.1	2.7	1.99	2.0	15.5	14.6
Discount Rate:	3.5%	1998		2.9	1.0	0.5	8.6		13.1	3.5	2.03	2.0	14.8	16.8
		1999		2.8	1.0	0.5	8.8		13.1	3.6	2.07	2.0	14.2	16.2
		2000		2.7	1.0	0.5	9.0		13.2	3.6	2.11	2.0	13.6	15.6
		2001		2.6	1.0	0.5	9.1		13.2	3.6	2.15	2.0	13.0	15.0
Fixed O&M Cost		2002		2.4	1.0	0.5	9.3		13.3	3.6	2.20	2.0	12.4	14.4
($1986/kw/yr):	$11.25	2003		2.3	1.0	0.5	9		13.4	3.6	2.24	2.0	11.9	13.9
		2004		2.2	1.0	0.5	.'		13.5	3.6	2.29	2.0	11.4	13.4
Variable O&M Cost		2005		2.1	1.0	0.5	9.9		13.6	3.7	2.33	2.0	10.9	12.9
($1986/kwh):	$0.0014	2006		2.1	1.0	0.5	10.1		13.7	3.7	2.38	2.0	10.4	12.4
		2007		2.0	1.0	0.5	10.3		13.8	3.7	2.43	2.0	10.0	12.0
New Turbine Heat Rate		2008		1.9	1.0	0.5	10.5		13.9	. 8	2 47	2.0	9.5	11.5
(BTU/kwh):	11,500	2009		1.8	1.0	0.5	10.7		14.0	3.8	2.52	2.0	9.1	11.1
		2010		1.7	1.0	0.5	10.9		14.2	3.8	2.57	2.0	8.7	10.7
Wellhead Gas Price		2011		1 5	1.0	0.5	11.1		14.3	3.9	2.62	2.0	8.4	10.4
($1986/MMBTU):	$1.60	2012		1.6	1.0	0.5	11.4		14.5	3.9	2.68	2.0	8.0	10.0
Gas Delivery ($86):	$0.00	2013		1.5	1.0	0.5	11.6		14.6	4.0	2.73	2.0	7.7	9.7
Real Wellhead Price		2014		1.4	1.0	0.5	11.8		14.8	4.0	2.79	2.0	7.3	9.3
Escalation Rate:	2.0%	2015		1.4	1.0	0.5	12.1		15.0	4.1	2.84	2.0	7.0	9.0
		2016		1.3	1.0	0.5	12.3		15.2	4.1	2.90	2.0	6.7	8.7

TABLE C.2 BASE CASE SCENARIO UNDER REVISED DEMAND FORECAST:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	FUEL SAVINGS ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Cash Flow for Base		2017		1.3	1.0	0.5	12.6		15.3	4.2	2.96	2.0	6.4	8.4
Construction Cost:		2018		1.2	1.0	0.5	12.8		15.5	4.2	3.02	2.0	6.1	8.1
1987	0%	2019		1.2	1.0	0.5	13.[illegible]		15.7	4.3	3.08	2.0	5.9	7.9
1988	0%	2020		1.1	1.0	0.5	13.3		16.0	4.3	3.14	2.0	5.6	7.6
1989	50%	2021		1.1	1.0	0.5	13.6		16.2	4.4	3.20	2.0		2.0
1990	50%	2022		1.0	1.0	0.5	13.9		16.4	4.4	3.26	2.0		2.0
		2023		1.0	1.0	0.5	14.1		16.6	4.5	3.33	2.0		2.0
		2024		0.9	1.0	0.5	14.4		16.9	4.6	3.40	2.0		2.0
		2025		0.9	1.0	0.5	14.7		17.1	4.6	3.46	2.0		2.0
Load Factor:	47%	2026		0.9	1.0	0.5	15.0		17.4	4.7	3.53	2.0		2.0
Annual Energy (gwh):	369.2	2027		0.8	1.0	0.5	15.3		17.6	4.8	3.60	2.0		2.0
Transmission Cost		2028		0.8	1.0	0.5	15.6		17.9	4.9	3.68	2.0		2.0
($1986 Millions):	$0.0	2029		0.7	1.0	0.5	15.9		18.2	4.9	3.75	2.0		2.0
		2030		0.7	1.0	0.5	16.2		18.5	5.0	3.82	2.0		2.0
BRADLEY LAKE		2031		0.7	1.0	0.5	16.6		18.8	5.1	3.90	2.0		2.0
Cost to Complete:	$283.0	2032		0.7	1.0	0.5	16.9		19.1	5.2	3.98	2.0		2.0
Debt Service (30 yr):	$25.1	2033		0.6	1.0	0.5	17.2		19.4	5.3	4.06	2.0		2.0
		2034		0.6	1.0	0.5	17.6		19.7	5.3	4.14	2.0		2.0
NP COST GAS	$285.7	2035		0.6	1.0	0.5	17.9		20.0	5.4	4.22	2.0		2.0
+ term & site restoration	$30.0	2036		0.5	1.0	0.5	18.3		20.4	5.5	4.31	2.0		2.0
NP COST GAS	$315.7	2037		0.5	1.0	0.5	18.7		20.7	5.6	4.39	2.0		2.0
		2038		0.5	1.0	0.5	19.0		21.1	5.7	4.48	2.0		2.0
NP COST BRADLEY	$229.9	2039		0.5	1.0	0.5	19.4		21.4	5.8	4.57	2.0		2.0
NET SAVINGS BRADLEY	$85.8	2040		0.5	1.0	0.5	19.8		21.8	5.9	4.66	2.0		2.0

NOTE: The analysis is based on a model originally developed by the Alaska Power Authority.

Prepared by the House Research Agency, March 1987 (Bradgas1; 861217-29).

TABLE C.3 DELAY OF BRADLEY LAKE AND GAS GENERATION ALTERNATIVE:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)	REAL RATE cents/Kwh
Base Capital Cost Excluding IDC ($1986/net kw):	$400													
		1987	0.0							$1.63				
Capacity (net kw):	90,000	1988	0.0							1.66				
		1989	0.0							1.70				
Construction Period (years):	2	1990	0.0							1.73				
Total Bonds:	$69.3	1991	0.0							1.77				
Bond Term (years):	20	1992	0.0							1.80				
Long-Term Interest Rate:	10.0%	1993	0.0							1.84				
Bond Payment (1997$):	$8.1	1994	0.0							1.87		41.3	41.3	11.2
		1995	0.0							1.91		39.5	39.5	10.7
Inflation Rate:	4.5%	1996	18.0							1.95		37.8	37.8	10.2
Reinvest Rate:	6.0%	1997	18.0	5.0				5.0	1.4	1.99		36.2	36.2	9.8
Discount Rate:	3.5%	1998		4.8	1.0	0.5	[illegible]	14.9	4.0	2.03	2.0	34.6	36.6	9.9
		1999		4.6	1.0	0.5	8.8	14.9	4.0	2.07	2.0	33.2	35.2	9.5
Fixed O&M Cost		2000		4.4	1.0	0.5	9.0	14.9	4.0	2.11	2.0	31.7	33.7	9.1
($1986/kw/yr):	$11.25	2001		4.2	1.0	0.5	9.1	14.9	4.0	2.15	2.0	30.4	32.4	8.8
		2002		4.0	1.0	0.5	9.3	14.9	4.0	2.20	2.0	29.1	31.1	8.4
Variable O&M Cost		2003		3.9	1.0	0.5	9.5	14.9	4.0	2.24	2.0	27.8	29.8	8.1
($1986/kwh):	$0.0014	2004		3.7	1.0	0.5	9.7	14.9	4.0	2.29	2.0	26.6	28.6	7.7
		2005		3.5	1.0	0.5	9.9	15.0	4.0	2.33	2.0	25.5	27.5	7.4
New Turbine Heat Rate		2006		3.4	1.0	0.5	10.1	15.0	4.1	2.38	2.0	24.4	26.4	7.1
(BTU/kwh):	11,500	2007		3.2	1.0	0.5	10.3	15.1	4.1	2.43	2.0	23.3	25.3	6.9
		2008		3.1	1.0	0.5	10.5	15.1	4.1	2.47	2.0	22.3	24.3	6.6
		2009		3.0	1.0	0.5	10.7	15.2	4.1	2.52	2.0	21.3	23.3	6.3
Wellhead Gas Price		2010		2.8	1.0	0.5	10.9	15.3	4.1	2.57	2.0	20.4	22.4	6.1
($1986/MMBTU):	$1.60	2011		2.7	1.0	0.5	11.1	15.4	4.2	2.62	2.0	19.6	21.6	5.8
Gas Delivery ($86):	$0.00	2012		2.6	1.0	0.5	11.4	15.5	4.2	2.68	2.0	18.7	20.7	5.6
Real Wellhead Price		2013		2.5	1.0	0.5	11.6	15.6	4.2	2.73	2.0	17.9	19.9	5.4
Escalation Rate:	2.0%	2014		2.4	1.0	0.5	11.8	15.7	4.3	2.79	2.0	17.1	19.1	5.2
		2015		2.3	1.0	0.5	12.1	15.9	4.3	2.84	2.0	16.4	18.4	5.0

TABLE C.3 DELAY OF BRADLEY LAKE AND GAS GENERATION ALTERNATIVE:
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)	REAL RATE cents/KWH
Cash Flow for Base		2016		2.2	1.0	0.5	12.3	16.0	4.3	2.90	2.0	15.7	17.7	4.8
Construction Cost:		2017		2.1	1.0	0.5	12.6	16.2	4.4	2.96	2.0	15.0	17.0	4.6
1987	0%	2018		2.0	1.0	0.5	12.8	16.3	4.4	3.02	2.0	14.4	16.4	4.4
1988	0%	2019		1.9	1.0	0.5	13.1	16.5	4.5	3.08	2.0	13.7	15.7	4.3
1989	0%	2020		1.8	1.0	0.5	13.3	16.7	4.5	3.14	2.0	13.2	15.2	4.1
1990	0%	2021		1.7	1.0	0.5	13.6	16.9	4.6	3.20	2.0	12.6	14.6	4.0
1991	0%	2022		1.7	1.0	0.5	13.9	17.1	4.6	3.26	2.0	12.0	14.0	3.8
1992	0%	2023		1.6	1.0	0.5	14.1	17.3	4.7	3.33	2.0	11.5	13.5	3.7
1993	0%	2024		1.5	1.0	0.5	14.4	17.5	4.7	3.40	2.0		2.0	0.5
1994	0%	2025		1.5	1.0	0.5	14.7	17.7	4.8	3.46	2.0		2.0	0.5
1995	0%	2026		1.4	1.0	0.5	15.0	17.9	4.9	3.53	2.0		2.0	0.5
1996	50%	2027		1.3	1.0	0.5	15.3	18.2	4.9	3.60	2.0		2.0	0.5
1997	50%	2028		1.3	1.0	0.5	15.6	18.4	5.0	3.68	2.0		2.0	0.5
		2029		1.2	1.0	0.5	15.9	18.7	5.1	3.75	2.0		2.0	0.5
Load Factor:	47%	2030		1.2	1.0	0.5	16.2	18.9	5.1	3.82	2.0		2.0	0.5
Annual Energy (gwh):	369.2	2031		1.1	1.0	0.5	16.6	19.2	5.2	3.90	2.0		2.0	0.5
Transmission Cost		2032		1.1	1.0	0.5	16.9	19.5	5.3	3.98	2.0		2.0	0.5
($1988 Millions):	$0.0	2033		1.0	1.0	0.5	17.2	19.8	5.4	4.06	2.0		2.0	0.5
		2034		1.0	1.0	0.5	17.6	20.1	5.4	4.14	2.0		2.0	0.5
BRADLEY LAKE		2035		0.9	1.0	0.5	17.9	20.4	5.5	4.22	2.0		2.0	0.5
Cost to Complete:	$415.1	2036		0.9	1.0	0.5	18.3	20.7	5.6	4.31	2.0		2.0	0.5
Construction (years):	4	2037		0.9	1.0	0.5	18.7	21.0	5.7	4.39	2.0		2.0	0.5
Total Bonds:	$553.9	2038		0.8	1.0	0.5	19.0	21.4	5.8	4.48	2.0		2.0	0.5
Debt Service (30 yr):	$58.8	2039		0.8	1.0	0.5	19.4	21.7	5.9	4.57	2.0		2.0	0.5
		2040		0.8	1.0	0.5	19.8	22.1	6.0	4.66	2.0		2.0	0.5
NP COST GAS	$250.6	2041		0.7	1.0	0.5	20.2	22.4	6.1	4.75	2.0		2.0	0.5
+ term & site restoration	$30.0	2042		0.7	1.0	0.5	20.6	22.8	6.2	4.85	2.0		2.0	0.5
NP COST GAS	$280.6	2043		0.7	1.0	0.5	21.0	23.2	6.3	4.95	2.0		2.0	0.5
		2044		0.6	1.0	0.5	21.4	23.6	6.4	5.05	2.0		2.0	0.5
NP COST BRADLEY	$406.7	2045		0.6	1.0	0.5	21.9	24.0	6.5	5.15	2.0		2.0	0.5
NET SAVINGS BRADLEY	($126.0)	2046		0.6	1.0	0.5	22.3	24.4	6.6	5.25	2.0		2.0	0.5
		2047		0.6	1.0	0.5	22.7	24.8	6.7	5.35	2.0		2.0	0.5
		2048		0.5	1.0	0.5	23.2	25.3	6.8	5.46	2.0		2.0	0.5

NOTE: The analysis is based on a model originally developed by the Alaska Power Authority.

Prepared by the House Research Agency, March 1987 (Bradgas3; 861217-29).

TABLE C.4 DELAY OF GAS GENERATION ALTERNATIVE
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Base Capital Cost Excluding IDC ($1986/net kW):	$400												
		1987	0.0							$1.63			
Capacity (net kW):	90,000	1988	0.0							1.66			
		1989	0.0							1.70			
Construction Period (years):	2	1990	0.0							1.73			
Total Bonds:	$69.3	1991	0.0							1.77	2.0	20.2	22.2
Bond Term (years):	20	1992	0.0							1.80	2.0	19.3	21.3
Long-Term Interest Rate:	10.0%	1993	0.0							1.84	2.0	18.5	20.5
Bond Payment (1997$):	$8.1	1994	0.0							1.87	2.0	17.7	19.7
		1995	0.0							1.91	2.0	16.9	18.9
Inflation Rate:	4.5%	1996	18.0							1.95	2.0	16.2	18.2
Reinvest Rate:	6.0%	1997	18.0	5.0				5.0	1.4	1.99	2.0	15.5	17.5
Discount Rate:	3.5%	1998		4.8	1.0	0.5	8.6	14.9	4.0	2.03	2.0	14.8	16.8
		1999		4.6	1.0	0.5	8.8	14.9	4.0	2.07	2.0	14.2	16.2
		2000		4.4	1.0	0.5	9.0	14.9	4.0	2.11	2.0	13.6	15.6
Fixed O&M Cost ($1986/kw/yr):	$11.25	2001		4.2	1.0	0.5	9.1	14.9	4.0	2.15	2.0	13.0	15.0
		2002		4.0	1.0	0.5	9.3	14.9	4.0	2.20	2.0	12.4	14.4
		2003		3.9	1.0	0.5	9.5	14.9	4.0	2.24	2.0	11.9	13.9
Variable O&M Cost ($1986/kwh):	$0.0014	2004		3.7	1.0	0.5	9.7	14.9	4.0	2.29	2.0	11.4	13.4
		2005		3.5	1.0	0.5	9.9	15.0	4.0	2.33	2.0	10.9	12.9
New Turbine Heat Rate		2006		3.4	1.0	0.5	10.1	15.0	4.1	2.38	2.0	10.4	12.4
(BTU/kwh):	11,500	2007		3.2	1.0	0.5	10.3	15.1	4.1	2.43	2.0	10.0	12.0
		2008		3.1	1.0	0.5	10.5	15.1	4.1	2.47	2.0	9.5	11.5
		2009		3.0	1.0	0.5	10.7	15.2	4.1	2.52	2.0	9.1	11.1
Wellhead Gas Price		2010		2.8	1.0	0.5	10.9	15.3	4.1	2.57	2.0	8.7	10.7
($1986/MMBTU):	$1.60	2011		2.7	1.0	0.5	11.1	15.4	4.2	2.62	2.0	8.4	10.4
Gas Delivery ($86):	$0.00	2012		2.6	1.0	0.5	11.4	15.5	4.2	2.68	2.0	8.0	10.0
Real Wellhead Price		2013		2.5	1.0	0.5	11.6	15.6	4.2	2.73	2.0	7.7	9.7
Escalation Rate:	2.0%	2014		2.4	1.0	0.5	11.8	15.7	4.3	2.79	2.0	7.3	9.3
		2015		2.3	1.0	0.5	12.1	15.9	4.3	2.84	2.0	7.0	9.0

TABLE C.4 DELAY OF GAS GENERATION ALTERNATIVE
BRADLEY LAKE NET SAVINGS ANALYSIS

ANALYSIS PARAMETERS		YEAR	CAPITAL COST ($86 MLN)	DEBT SERVICE ($86 MLN)	FIXED O&M ($86 MLN)	VARIABLE O&M ($86 MLN)	FUEL COST ($86 MLN)	TOTAL COST ($86 MLN)	REAL RATE (C/KWH)	REAL WELLHEAD GAS PRICE ($86/MMBTU)	BRADLEY O&M ($86 MLN)	BRADLEY DS ($86 MLN)	TOTAL BRADLEY ($86 MLN)
Cash Flow for Base		2016		2.2	1.0	0.5	12.3	16.0	4.3	2.90	2.0	6.7	8.7
Construction Cost:		2017		2.1	1.0	0.5	12.6	16.2	4.4	2.96	2.0	6.4	8.4
1987	0%	2018		2.0	1.0	0.5	12.8	16.3	4.4	3.02	2.0	6.1	8.1
1988	0%	2019		1.9	1.0	0.5	13.1	16.5	4.5	3.08	2.0	5.9	7.9
1989	0%	2020		1.8	1.0	0.5	13.3	16.7	4.5	3.14	2.0	5.6	7.6
1990	0%	2021		1.7	1.0	0.5	13.6	16.9	4.6	3.20	2.0		2.0
1991	0%	2022		1.7	1.0	0.5	13.9	17.1	4.6	3.26	2.0		2.0
1992	0%	2023		1.6	1.0	0.5	14.1	17.3	4.7	3.33	2.0		2.0
1993	0%	2024		1.5	1.0	0.5	14.4	17.5	4.7	3.40	2.0		2.0
1994	0%	2025		1.5	1.0	0.5	14.7	17.7	4.8	3.46	2.0		2.0
1995	0%	2026		1.4	1.0	0.5	15.0	17.9	4.9	3.53	2.0		2.0
1996	50%	2027		1.3	1.0	0.5	15.3	18.2	4.9	3.60	2.0		2.0
1997	50%	2028		1.3	1.0	0.5	15.6	18.4	5.0	3.68	2.0		2.0
		2029		1.2	1.0	0.5	15.9	18.7	5.1	3.75	2.0		2.0
Load Factor:	47%	2030		1.2	1.0	0.5	16.2	18.9	5.1	3.82	2.0		2.0
Annual Energy (gwh):	369.2	2031		1.1	1.0	0.5	16.6	19.2	5.2	3.90	2.0		2.0
Transmission Cost		2032		1.1	1.0	0.5	16.9	19.5	5.3	3.98	2.0		2.0
($1986 Millions):	$0.0	2033		1.0	1.0	0.5	17.2	19.8	5.4	4.06	2.0		2.0
		2034		1.0	1.0	0.5	17.6	20.1	5.4	4.14	2.0		2.0
BRADLEY LAKE		2035		0.9	1.0	0.5	17.9	20.4	5.5	4.22	2.0		2.0
Cost to Complete:	$283.0	2036		0.9	1.0	0.5	18.3	20.7	5.6	4.31	2.0		2.0
Debt Service (30 yr):	$25.1	2037		0.9	1.0	0.5	18.7	21.0	5.7	4.39	2.0		2.0
		2038		0.8	1.0	0.5	19.0	21.4	5.8	4.48	2.0		2.0
NP COST GAS	$250.6	2039		0.8	1.0	0.5	19.4	21.7	5.9	4.57	2.0		2.0
+ term & site restoration	$30.0	2040		0.8	1.0	0.5	19.8	22.1	6.0	4.66	2.0		2.0
NP COST GAS	$280.6												
NP COST BRADLEY	$244.6												
NET SAVINGS BRADLEY	$36.0												

NOTE: The analysis is based on a model originally developed by the Alaska Power Authority.

Prepared by the House Research Agency, March 1987 (Bradgas2; 861217-29).

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST

Bill/Resolution No.: SB 159
Title: Act amending appropriation to the Alaska Power Authority for the Bradley Lake Project
Sponsor: Rules Committee
Requester: Governor

FISCAL DETAIL

Agency Affected: Alaska Power Authority
BRU: Dept. of Commerce & Econ. Development

Components: _____

EXPENDITURES/REVENUES : (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL	0.0	0.0	0.0			
REVENUE						

FUNDING : (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER	50,000.0	0.0	0.0	0.0	0.0	0.0
TOTAL	50,000.0	0.0	0.0	0.0	0.0	0.0

POSITIONS :

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : Attach a separate page if necessary

See attachment.

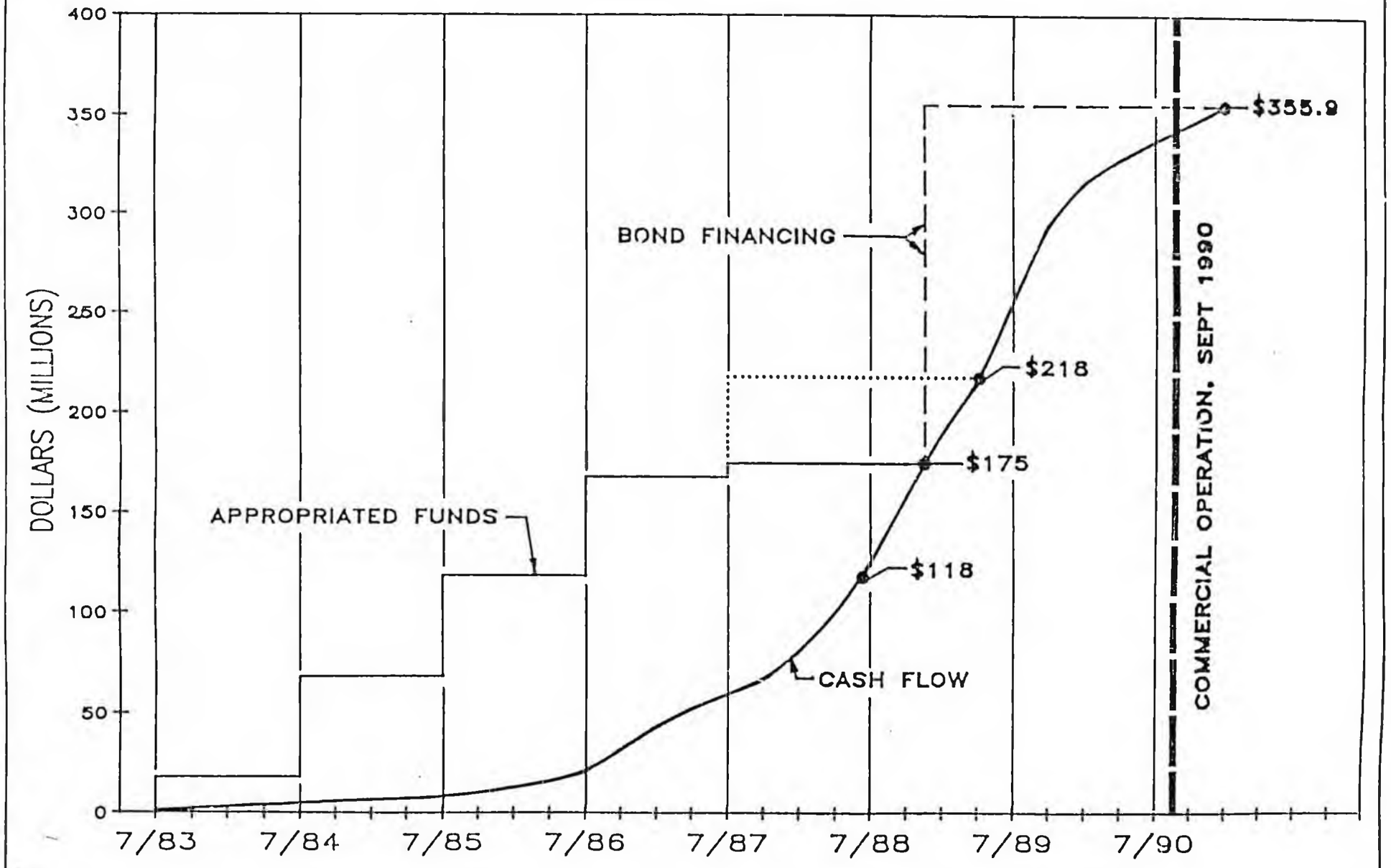
Prepared by: Robert E. LeResche, Executive Director Phone: 465-3575
Division: Alaska Power Authority Date: 4/7/87

Approved by Commissioner: _____ Date: _____
Agency: _____

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

9/16/86

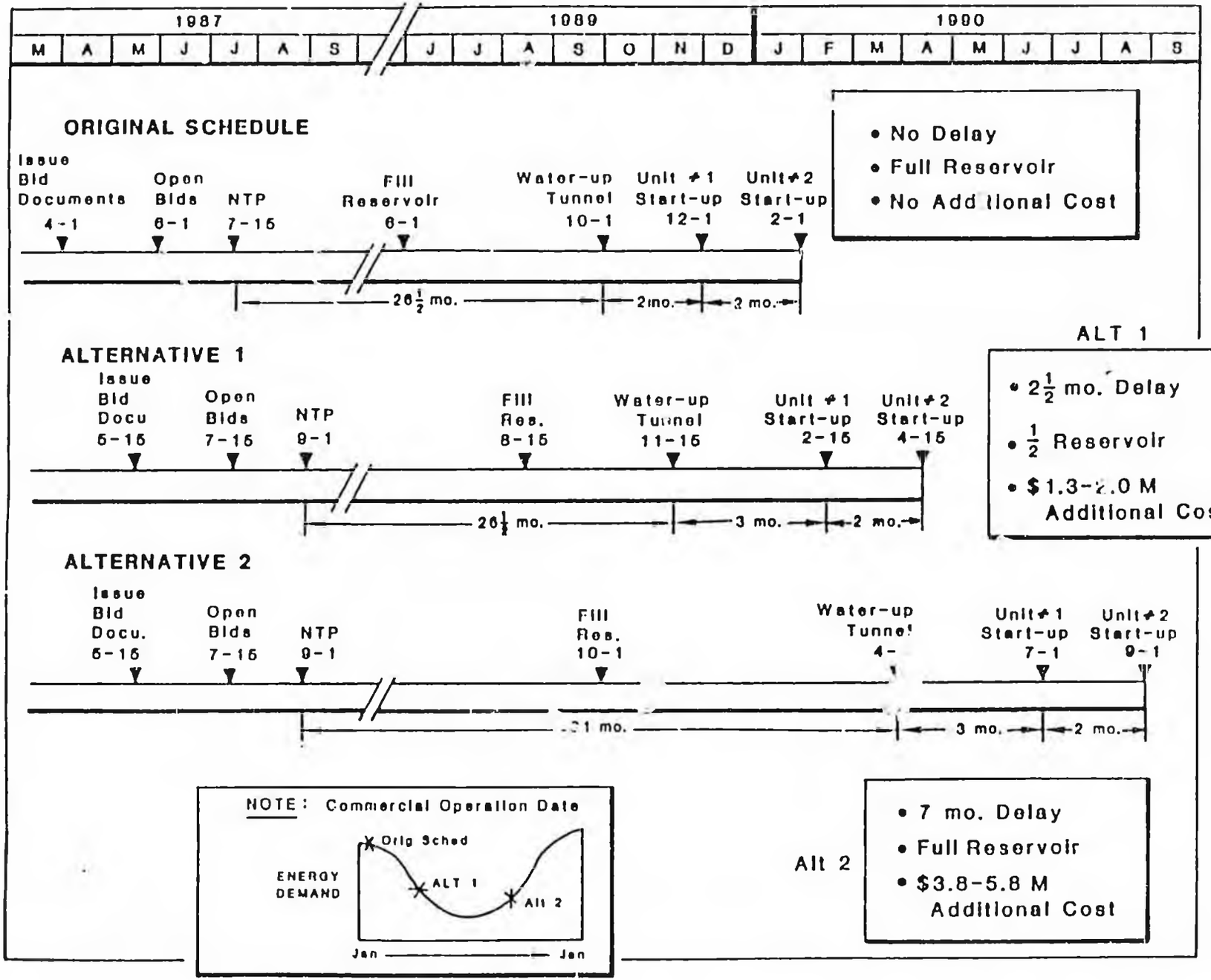
ALTERNATE #2
CASH FLOW



BRADLEY LAKE HYDROELECTRIC PROJECT, MARCH 1987

Alaska Power Authority

BRADLEY SCHEDULE ALTERNATIVES



ADVANTAGES TO ALTERNATIVE #2 SCHEDULE

1. Brings project on-line consistent with the seasonal increase in utility energy demand requirements. (Sept. vs. April)

2. Provides added flexibility to project scheduling for contract advertising/award.

3. Provides additional "float" in the General Civil Contract as well as the Powerhouse Contract which will help accommodate unforeseen changes without impacting project completion, thereby reducing potential claims.

4. Allows additional construction time to complete "critical path" work which reduces construction risks and may result in more favorable bids.

5. Estimated additional project cost of $3.8-5.8 million is based escalation of construction costs for seven (7) months less additional arbitrage interest earnings. This figure does not reflect a possible reduction in bid prices or potential lessening of claims exposure.

BRADLEY LAKE PROJECT

TOTAL COST IF TERMINATED

Expenditures Through March 31, 1987	$	52.4 million
Additional Expenditure Through May 1987		5.0 million
Contract Termination Costs		4.4 million
Site Restoration Cost		8.0–33.0 million
TOTAL		$ 69.8–94.8 million

STEVE COWPER
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

March 3, 1987

The Honorable Jan Faiks
President of the Senate
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Senator Faiks:

Under the authority of art. III, sec. 18, of the Alaska Constitution, I am transmitting a bill that amends an appropriation to the Alaska Power Authority -- ch. 128, SLA 1986, page 8, line 7, in the amount of $50,000,000 -- by changing the funding source from the general fund to the Railbelt Energy Fund (AS 37.05.153).

AS 37.05.153, the law outlining the purpose of the Railbelt Energy Fund, specifies that the legislature may appropriate money from the fund to assist in meeting railbelt energy needs. As the Bradley Lake Hydroelectric Project is designed to reduce the long-term cost of power to railbelt consumers, my Administration is recommending that funding for the project be appropriated from the Railbelt Energy Fund.

Sincerely,

Steve Cowper
Governor

HO. 58

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

SENATE
BILL VERSION: SB 159
PUBLISH DATE: 3/3/87

REQUEST:

Revision Date:
Title: Act amending appropriation to the AK Power Authority for Bradley Lake Project
Sponsor: Rules Committee
Requester: Governor

Agency Affected: Commerce & Economic Dev.
BRU: Alaska Power Authority
Component:

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL	50,000.0	0.0	0.0	0.0	0.0	0.0
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER	50,000.0	0.0	0.0	0.0	0.0	0.0
TOTAL	50,000.0	0.0	0.0	0.0	0.0	0.0

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS:

The Railbelt Energy Fund is an appropriate source of available funding for the Bradley Lake Hydroelectric Project in FY 88, as provided for in AS 37.05.153.

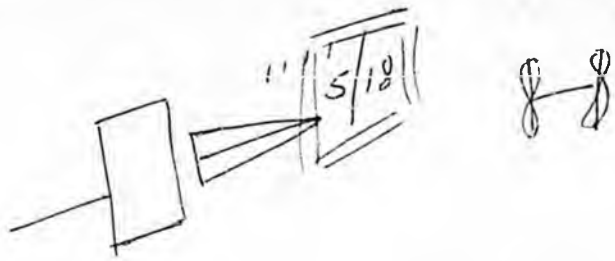
Prepared by: Gloria Manni, Director
Division: Acctg. & Admin./AK Power Authority
Phone: 561-7877
Date: 3/2/87

Approved by Commissioner: Robert LeResche
Agency: Executive Director, APA
Date: 3/2/87

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

Introduced: 3/3/87
Referred: Finance

wo1377s



BY THE RULES COMMITTEE BY REQUEST OF THE GOVERNOR

IN THE SENATE

SENATE BILL NO. 159

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act amending an appropriation to the Alaska Power Authority for the Bradley Lake Hydroelectric Project; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. Section 3, ch. 128, SLA 1986, page 8, line 7, is amended to read:

Appropriation Item	General Fund	Other Funds
Alaska Power Authority -- Bradley Lake Hydroelectric Project	$50,000,000	[$50,000,000] $50,000,000

* Sec. 2. The funding source of this amended appropriation is the Railbelt Energy Fund (AS 37.05.153).

* Sec. 3. This Act takes effect immediately under AS 01.10.070(c).

Offered: 4/8/87
Referred: Resources & Finance

5-0423B

Original sponsors: Coghill and Szymanski

IN THE SENATE

BY THE LABOR AND COMMERCE COMMITTEE

CS FOR SENATE BILL NO. 109 (L&C)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the rural electrification revolving loan fund."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. FINDINGS AND INTENT. (a) Although the rural electrification revolving loan fund has existed since 1981, it has not adequately met the purpose for which it is intended. The principal reason for that failure has been regulations that have, at least in part, opposed the purpose of this program. The purpose of this program is to assist electric utilities and their consumers in extending pioneer electric distribution lines into developing rural areas.

(b) The legislature finds that

(1) the installation of pioneer electric distribution lines is essential to the orderly development of areas that are suitable and appropriate for development; frequently it is prohibitively expensive for the utilities and their consumers to build the necessary distribution lines in anticipation of sufficient development to make the lines feasible;

(2) it is in the public interest for the state to assist in financing distribution lines in areas where development is expected; the appropriate role of the state in regard to the lines is that of assuming the risk that the anticipated development will in fact occur;

(3) populated areas along state highways that have a source of central station electric service available for distribution are expected to develop further and loans from this program to construct pioneer distribution lines along those state highways are appropriate, and should be given

priority for one-half of the funds available.

(c) It is the intent of the legislature that all existing regulations relating to this loan program be reconsidered and that they be amended to conform to this Act.

* Sec. 2. AS 44.83.361(b) is amended to read:

(b) The authority may make loans from the rural electrification revolving loan fund to electric utilities certified by the Alaska Public Utilities Commission. A loan from the fund may be made only for the purpose of extending new electric service into an area of the state that an electric utility may serve under a certificate of public convenience and necessity issued by the Alaska Public Utilities Commission. A loan may be made from the fund to an electric utility if the utility invests the money necessary to provide one pole, one span of line, one transformer, and one service drop for each consumer for whom immediate service would be provided by the extension of electric service. Applications for loans to extend service along state highways shall be given priority on one-half of the funds available for loans under this section. However, a loan may not be made from the fund unless

(1) the loan is recommended by a loan advisory committee appointed under AS 44.83.363; and

(2) the extension of electric service would provide immediate service to at least three consumers.

* Sec. 3. AS 44.83.361(c) is amended to read:

(c) A loan from the rural electrification revolving loan fund shall bear an annual rate of interest of two percent of the unpaid balance of the loan. Interest received on a loan made under this section must be transferred annually (MONTHLY) to the commissioner of revenue for deposit in the general fund. The unpaid balance on a loan

made under this section remaining after 30 years may be forgiven.

* Sec. 4. AS 44.83.363 is amended to read:

Sec. 44.83.363. LOAN ADVISORY COMMITTEE. When an application for a rural electrification loan is submitted to the authority under AS 44.83.361, the authority shall appoint a local advisory committee from persons residing in the area that the applicant utility is certified to serve. The loan advisory committee shall consider the loan application, and shall recommend whether the loan application is to be approved or disapproved. A favorable recommendation from the loan advisory committee shall be based on a determination that development in the area of the proposed extension of electric service is likely to provide for full repayment of the loan under AS 44.83.361(d) within 30 [10] years. In making that determination the committee shall consider

(1) permanence of the premises to be served by the extension;

(2) land use patterns in the area;

(3) access for the line that would be installed with loan proceeds;

(4) availability of other utility service in the area; and

(5) the financial [ECONOMIC] feasibility of the extension of electric service with the proceeds of the loan.

Original sponsors: Coghill and Faiks

IN THE SENATE BY THE RESOURCES COMMITTEE

CS FOR SENATE BILL NO. 205 (Resources)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FIFTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to the Railbelt energy council; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. Section 2(b), ch. 30, SLA 1986, is amended to read:

(b) Membership on the council consists of two members appointed by the governor; two senators appointed by the president of the senate; two members of the house of representatives appointed by the speaker of the house; the executive director of the Alaska Power Authority; and one representative from each of the seven Railbelt utilities.

* Sec. 2. Section 3, ch. 30, SLA 1986, is amended to read:

Sec. 3. This Act is repealed June 30, 1988 [1987].

* Sec. 3. The Railbelt energy council, created in sec. 2, ch. 30, SLA 1986, shall report to the legislature by February 15, 1988, on the progress made towards implementing the recommendations contained in the council's first report dated January 24, 1987.

* Sec. 4. This Act takes effect immediately under AS 01.10.070(c).

Alaska Power Authority

RAILBELT INTERTIE BENEFITS

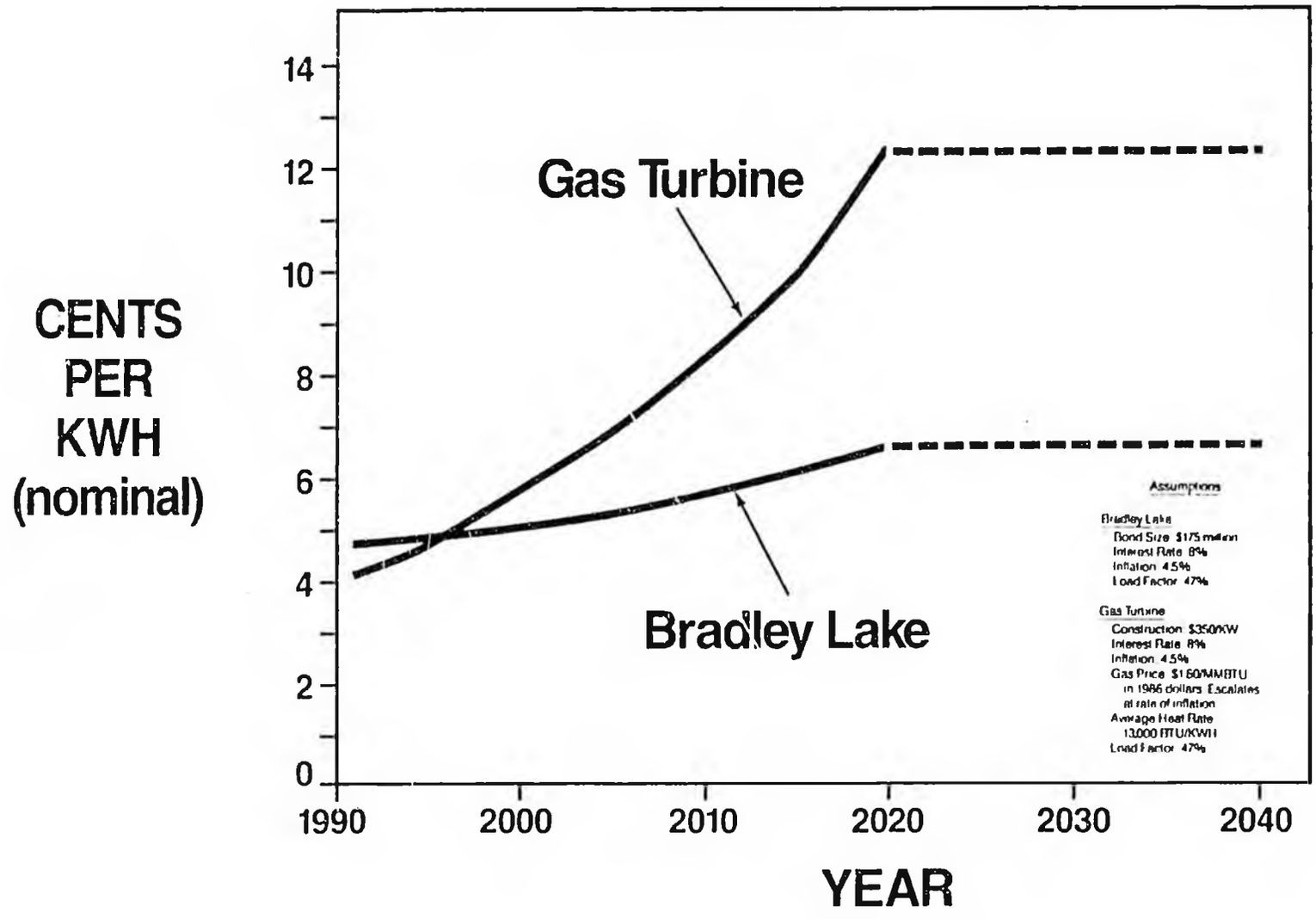
Quantified

- Economy Interchange
- Reserve Sharing
- System Efficiency
- Siting Flexibility for New Plants

Not Quantified

- System Reliability
- Increased Utility Coordination
- Distribution of Bradley Lake Benefits
- Enhanced Competition Among Fuel Suppliers

BRADLEY LAKE vs. GAS TURBINE PROJECTED RATES



BRADLEY LAKE PROJECT

TOTAL COST IF TERMINATED

Expenditures Through March 31, 1987	$	52.4 million
Additional Expenditure Through May 1987		5.0 million
Contract Termination Costs		4.4 million
Site Restoration Cost		8.0–33.0 million
TOTAL		$ 69.8–94.8 million

REPORT OF THE

RAILBELT ENERGY COUNCIL

TO THE

FIFTHTEENTH ALASKA STATE LEGISLATURE

FIRST SESSION

January 24, 1987

TABLE OF CONTENTS

RAILBELT ENERGY COUNCIL MEMBERSHIP

LEGISLATIVE MEMBERS

Senator Jan Faiks (Chairman, REC), Anchorage

Senator Jack Coghill, Nenana

Representative Sam Cotten, Eagle River

Representative Steve Frank, Fairbanks

GOVERNOR'S APPOINTEES

Mano Frey, Executive President, Alaska State AFL&CIO

Steven Lewis, President, PETROSTAR

UTILITIES' MEMBERS

RON GARZINI, City Manager,
Seward Electric System

VIRGIL GILLESPIE, General Manager,
Fairbanks Municipal Utilities System

MIKE KELLY, General Manager,
Golden Valley Electric Association

RICK NEWLAND, General Manager,
Chugach Electric Association

JAMES PALIN, General Manager,
Matanuska Electric Association

TOM STAHR, General Manager,
Anchorage Municipal Light & Power

KENT WICK, General Manager,
Homer Electric Association Utilities
(Vice-Chairman, REC)

EXECUTIVE SUMMARY

In 1986, the Alaska Legislature created the Railbelt Energy Council (REC) and charged it with addressing five areas of concern dealing with the Railbelt energy needs (Ch 30, SLA 1986). The Council membership consists of two members appointed by the Governor; two senators appointed by the President of the Senate; two members of the House of Representatives appointed by the Speaker of the House; and one representative from each of the seven interconnected Railbelt utilities. The Council was to report its recommendations to the Legislature by February 15, 1987.

The Council addressed the organizational and financial aspects as well as reviewed various alternatives for meeting the future energy needs of the Railbelt. The Council was unable to conduct the review of the alternatives in as great a detail as originally anticipated because of a freeze placed on the $2.5 million appropriation to the Alaska Power Authority (APA) for that specific purpose. Despite these difficulties further exacerbated by the declining oil prices and state revenues, the Council has addressed the major issues and unanimously approved its findings and recommendations. They are summarized below.

FINDINGS:

1. DECREASING OIL PRICES AND STATE REVENUES ARE CAUSING SIGNIFICANT CHANGES IN THE FORECASTED RAILBELT ENERGY REQUIREMENTS FOR THE NEXT SEVERAL YEARS. THE IMPACT OF THESE DEVELOPMENTS ON LONG-TERM GROWTH IS UNCLEAR.

2. DUE TO BUDGETARY LIMITATIONS, STATE PARTICIPATION IN FUTURE ENERGY PROJECTS WILL BECOME MORE CONSTRAINED.
3. INCREASING THE UTILIZATION AND EFFICIENCY OF THE EXISTING RAILBELT GENERATION AND TRANSMISSION RESOURCES REPRESENTS THE BEST SOLUTION IN THE NEAR TERM.
4. IMPROVING COOPERATION AND COORDINATION AMONG RAILBELT UTILITIES WILL INCREASE THE RELIABILITY AND COST EFFECTIVENESS OF THE REGION'S ELECTRIC SYSTEM.
5. THE LEGISLATURE ESTABLISHED THE RAILBELT ENERGY FUND FOR THE SOLE PURPOSE OF FINANCING ENERGY PROJECTS IN THE RAILBELT REGION.

MAJOR RECOMMENDATIONS:

1. CREATION OF A REGIONAL GENERATION AND TRANSMISSION TYPE UTILITY ORGANIZATION IS IN THE BEST INTEREST OF THE RAILBELT CONSUMERS AND SHOULD CONTINUE TO BE SUPPORTED BY ALL CONCERNED.
2. THE ALASKA POWER AUTHORITY SHOULD CONTINUE TO PERFORM ITS RAILBELT FUNCTIONS UNTIL THE LEGISLATURE AND ADMINISTRATION COMPLETE THEIR REVIEW AND DETERMINE THE APA'S FUTURE ROLE AND STRUCTURE.
3. THE COUNCIL RECOMMENDS THAT THE UTILITIES SHOULD HAVE REPRESENTATION ON THE ALASKA POWER AUTHORITY BOARD OF DIRECTORS.
4. CONSTRUCTION OF THE BRADLEY LAKE HYDROELECTRIC PROJECT SHOULD CONTINUE IN ACCORDANCE WITH A PLAN OF FINANCE AND POWER SALE AGREEMENTS PREVIOUSLY APPROVED OR AS MAY BE MODIFIED BETWEEN APA AND THE RAILBELT UTILITIES. ALL RAILBELT UTILITIES SHOULD BE GIVEN AN OPPORTUNITY TO PARTICIPATE IN THE BRADLEY LAKE PROJECT.

5. A PORTION OF THE RAILBELT ENERGY FUND SHOULD BE APPROPRIATED FOR THE COMPLETION OF THE ANCHORAGE-KENAI PENINSULA AND ANCHORAGE-FAIRBANKS INTERTIES IN CONJUNCTION WITH THE COMPLETION OF THE BRADLEY LAKE PROJECT.

6. THE BURDEN OF PROOF FOR DEMONSTRATING A COMPELLING NEED FOR ANY ADDITIONAL ENERGY PROJECT BEYOND BRADLEY LAKE AND THE RAILBELT INTERTIES, FOR WHICH STATE FINANCIAL ASSISTANCE IS BEING SOUGHT, IS ON THE PROJECT SPONSOR(S) AND SHOULD INCLUDE A CREDIBLE PLAN OF FINANCE AS WELL AS PUBLIC POLICY CONSIDERATIONS JUSTIFYING THE STATE ASSISTANCE.

7. AN ENERGY PROJECT REVOLVING FUND SHOULD BE ESTABLISHED, UTILIZING ANY MONIES REMAINING IN THE RAILBELT ENERGY FUND. A METHOD TO REPLENISH THE FUND SHOULD BE DEVELOPED WITH AFFORDABILITY TO THE RATEPAYER AS THE KEY TO ANY SUCH REPAYMENT PLAN.

INTRODUCTION

The Railbelt Energy Council was created by the Alaska Legislature (Chapter 30, SLA 1986) during the 1986 Legislative session. The Council was created in response to requests from the Railbelt utilities and other interested parties concerned that with the demise of the Susitna River Hydroelectric Project (Watana and Devil Canyon dams) early in 1986, the Railbelt's energy needs would not be met. The terms of financing for the Susitna project were found to be unacceptable due to its large capital cost and decreasing State revenues, although the project still appears economically feasible over the long run.

The demise of the two-dam Susitna project left the Railbelt Energy Program in question and with the problem of how best to utilize some $280 million designated as part of the state's equity in that project.

Another issue that had to be addressed dealt with the perception that the cooperation and coordination among the Alaska Power Authority and the seven interconnected Railbelt utilities was not as effective as deemed necessary for formulating the most efficient solutions to Railbelt energy needs.

In general then, the Council was created to address the organizational, generation, transmission and financial issues as they related to the Railbelt energy problems. The statutorily specified issues are addressed later in this report. Pending completion of the Council's

work, the Legislature placed all of the remaining Susitna Project funds into the Railbelt Energy Fund (REF) (Chapter 29 & 41, SLA 1986) while retaining the sole authority for making appropriations from it. Further, as a way of assisting the Council, the Legislature appropriated $2.5 million from REF to the APA for conducting a review and evaluation of Railbelt electric power alternatives (Chapter 42, SLA 1986).

While the Council has addressed the five areas mandated by statute, the report is not as comprehensive as desired largely because of two unplanned events. First, the previous Administration froze most of the $2.5 million appropriation to the APA that was to be used to review and evaluate Railbelt electric power alternatives. Second, the decline of economic growth has substantially delayed the need for future generation facilities in the Railbelt.

Despite these obstacles, the Council has been able to forge unified positions on a number of major issues dealing with the Railbelt energy problems. The Council feels that implementation of its recommendations will go a long way toward assuring Railbelt consumers--who represent three fourths of the State's population--of more reliable and low cost electrical energy. Further, utilization of the REF for energy projects in the Railbelt will restore some of the regional equity originally envisioned under the Energy Program for Alaska.

The Findings and Recommendations of this report are keyed to the five specific reporting requirements of the statute (Ch. 30, Sec 2, SLA 1986). Each of the five parts under Findings & Recommendations is headed with one of the statute requirements, which is underlined for easier identification.

FINDINGS & RECOMMENDATIONS

1. Recommend the best options for planning, financing, constructing, and managing electric power facilities in the Railbelt area.

   A. Planning. The Railbelt Energy Council finds that a well coordinated planning effort among those responsible for supplying the service is absolutely essential to assure that the Railbelt customers will have the most reliable, efficient and economic electric supply system. While there are many interested parties that have much valuable input to offer to the planning process, THE FACT REMAINS THAT THE RESPONSIBILITY FOR SUCH PLANNING REMAINS WITH THE RAILBELT UTILITIES AND THE ALASKA POWER AUTHORITY. The Council should not be expected to become a substitute for such a planning entity.

   THE COUNCIL BELIEVES THERE MUST EXIST A FORMAL ORGANIZATION of all interconnected Railbelt utilities. The creation of such a regional utility organization should continue to be supported by the responsible agencies, the Legislature and the Administration as being in the best interest of the Railbelt consumers.

While the Council recognizes that in the long-term the optimal solution would be a regional generation and transmission (G&T) utility organization, it is also aware that technical and political considerations may preclude such a solution in the short-term. Therefore, as an interim solution the Council recommends that:

1. The Railbelt utilities and APA work diligently toward establishing a regional organization as soon as possible.

2. Pending any change in its role and/or structure, the APA should continue to administer and perform its existing programs and functions relative to the Bradley Lake and the Railbelt interties projects.

3. The APA Board of Directors be immediately reorganized to include direct utility representation.

The Council recommends that the role of APA be re-evaluated. Two issues that should be taken into consideration in this review are the pending formation of a regional G&T utility and a significantly smaller state budget. Such a review by the Legislature and the Administration should begin during the 1987 session and provide for the Railbelt utility input.

B. Financing. The Council finds that it is not appropriate to recommend financing options without first having a specific project proposal. In general terms, the Council believes tha each project will have some unique aspect and the optimal financing plan will have to be custom tailored after specific economic feasibility and all relevant financial factors have been identified and public policy aspects considered. The Council recognizes that new State capital project funds will most likely remain scarce in the immediate future.

Therefore, THE COUNCIL RECOMMENDS THAT THE LEGISLATURE CONSIDER THE FINANCING OPTIONS FOR EACH NEW PROJECT SEPARATELY AND ENSURE OPTIMAL USE OF THE STATE AND PRIVATE EQUITY FUNDS.

Specifically, THE COUNCIL RECOMMENDS THAT THE LEGISLATURE CONTINUE TO SUPPORT THE PREVIOUSLY APPROVED BRADLEY LAKE HYDROELECTRIC PROJECT NOW UNDER CONSTRUCTION.

The Bradley project has already been deemed economically and environmentally feasible and has received licensing approval from the Federal Energy Regulatory Commission. Construction was begun in the summer of 1986. The State of Alaska has appropriated approximately $168 million for the project, $50 million of which was frozen after the 1986 Legislative session.

The Railbelt Energy Council unanimously supports timely completion of the Bradley project and supports full additional funding of $50 million for a total appropriation of $218 million as previously approved by the Legislature and which was in effect at the time of the signing of conditional power sales agreements. Changes to the existing plan of finance should be contemplated only after a careful evaluation of the impact they would have on the existing power sale agreements, but with the recognition that all seven interconnected Railbelt utilities should have direct access to the Project through completion of the Anchorage-Fairbanks and Anchorage-Kenai Peninsula interties.

Further, THE COUNCIL RECOMMENDS THAT A PORTION OF THE RAILBELT ENERGY FUND BE USED TO COMPLETE THE ANCHORAGE TO FAIRBANKS AND ANCHORAGE TO KENAI PENINSULA INTERTIES. The Council finds that the completion of these interties will allow all of the Railbelt utilities to more equally share the benefits of the Bradley Lake project as well as provide more reliable and less costly electric service to all consumers in the region.

C. Constructing. The Council finds that the owner or owners of a power project should retain the responsibility and authority to decide how best to construct it. Unless and until its role and/or structure are changed, the APA should

retain responsibility for the completion of the Bradley Lake Project and the Interties. The APA should closely coordinate its activities with the Railbelt utilities.

If at some future date there should come into being a regional utility organization, then any projects constructed by it should be accomplished totally under that organization's control.

D. Managing. The Council finds that in general the utilities are best qualified to operate and maintain the power supply facilities and recommends that the APA policy of contracting out such operations to local utilities be continued. The Council further recommends that management decisions, which are normally the prerogative of the owner and which could impact ratepayers, be closely coordinated among the owners, operators and users.

On the issue of divestiture, the Council finds that the transfer of the federal Eklutna Hydroelectric project to local utility or utilities makes sense only if the purchase price and terms are favorable to consumers and other interested parties. Accordingly, the Council recommends that the appropriate Railbelt utilities continue to pursue the divestiture process until the sale is consumated or it becomes clear that the process will not be successful due to political and other constraints.

2. Examine all alternatives and recommend the best method for meeting projected Railbelt energy demand.

As previously mentioned, the Council was unable to thoroughly examine a wide spectrum of energy alternatives because funds for energy alternative studies were frozen. In addition, the Council finds that the dramatic decline in oil prices since the end of the 1986 Legislative Session has had a profound effect on near-term Railbelt energy forecasts. For the near future, this seems to indicate that unless there is a significant upturn in the economy, there may not be a need for major new power plant additions after the completion of the Bradley Lake and Interties projects and excluding any existing plant replacements.

Given these circumstances, THE COUNCIL FINDS THAT THE PRUDENT STRATEGY TO FOLLOW AT THIS TIME IS TO INCREASE THE UTILIZATION AND OPERATIONAL EFFICIENCY OF THE EXISTING RAILBELT GENERATION AND TRANSMISSION FACILITIES AND THOSE UNDER CONSTRUCTION. Specifically, this should include timely completion of the Bradley Project, constructing a new Anchorage-Kenai Peninsula intertie, upgrading the Anchorage-Fairbanks intertie, implementation of various conservation measures and extending the life of existing power plants.

There are many benefits of an improved transmission system. Some of these are not easily quantifiable into dollars. Examples of such benefits include improved reliability, decreased

standby generation requirements, flexibility of buying from lowest cost generation source, the increased competition due to greater access to alternative generation methods and facilitation of general economic development requirements. THEREFORE, THE COUNCIL RECOMMENDS THAT THESE PUBLIC POLICY ISSUES BE CONSIDERED AS AN IMPORTANT PART OF THE DECISION MAKING PROCESS IN ADDITION TO THE TRADITIONAL BENEFIT/COST ANALYSIS.

The Council finds that electricity has become a necessity and a prerequisite to improving the quality of life for the rural residents. While the Council recognizes that extending the electrical service to all rural residents is neither practical, nor desired by some of them, it finds that extension of such services along state routes and interties, on a priority basis, would be highly desirable. Accordingly, the Council believes that the Legislature and the Administration should adopt policies and appropriations designed to achieve that goal, thereby enhancing the economic development potential of the rural residents while concurrently improving their quality of life.

3. Recommend alternative financing plans for assisting the private sector and public utilities to meet the future energy needs of the Railbelt area.

The Council has in this report made specific recommendations covering methods of financing for Bradley Lake and the Interties. The Council recognizes that State revenues have severely declined and that no new generation, in addition to the Bradley Lake and

Interties projects may be needed in the near future. The Council generally supports construction of future power supply projects by the municipalities, utilities or the private sector.

The Council further recommends that the burden of proof for making a compelling case for State participation in any project rest with the project sponsor(s) to include demonstrating that private financing is not feasible or available and that public policy considerations warrant financial assistance by the State.

THE COUNCIL FINDS THAT THE LEGISLATURE ESTABLISHED THE RAILBELT ENERGY FUND FOR THE SOLE PURPOSE OF FINANCING ENERGY PROJECTS IN THE RAILBELT REGION. Accordingly, THE COUNCIL RECOMMENDS THAT A PLAN OF FINANCE BE DEVELOPED TO ASSURE THAT THESE FUNDS ARE USED SOLELY FOR THEIR INTENDED PURPOSE AND THAT REPLENISHMENT OF THE FUNDS BE CONSIDERED A KEY ELEMENT IN ANY SUCH PLAN.

4. Determine whether a regional generation and transmission utility organization can operate to the best interests of utility consumers.

As alluded to under Finding 1A, the Council is aware that previous studies have demonstrated that a regional power supply utility organization is in the best interest of consumers.

Currently, work is being pursued by the Railbelt utilities toward a regional generation and transmission utility organization. This includes a formal generation and transmission organization study and a possible modification of the existing Alaska Electric Generation & Transmission cooperative by-laws to accommodate further expansion.

The Council is convinced that a regional generation and transmission utility organization makes sense and that the goal is worthwhile pursuing despite potential implementation problems. Pending a successful resolution of the issue, the Council recommends that the APA become a formal member of any organization designated to deal with the Railbelt energy issues.

5. Cooperate with the Alaska Power Authority to examine the feasibility and desirability of energy projects.

The Council notes that APA and the utilities are already cost sharing in the study of the Anchorage-Kenai Peninsula Intertie feasibility. The Council finds that freezing of the $2.5 million (except for the $150,000 for the Anchorage-Kenai Peninsula Intertie feasibility study) designated for studying the Railbelt electric power alternatives limited the Council's ability to review and evaluate Railbelt electric power alternatives such as coal, gas, conservation, Devil Canyon, and other hydro generation options.

Should the Legislature desire additional analysis to determine whether any of the above options are desirable, the Council would recommend that a highly qualified team be assembled to prepare plans of finance to determine whether the projects are able to be financed before proceeding with a feasibility analysis. The Council believes that this sequence would preclude needless expenditure of funds on detailed feasibility studies for projects which are not able to be financed despite being economically feasible.

While the Council finds that restructuring the APA Board of Directors is the best solution to assuring improved cooperation and coordination between the Railbelt utilities and the APA, should the Legislature desire to extend the life of REC for any reason, then the APA should be made a full member.

HOUSE RESEARCH
RAILBELT ENERGY ANALYSIS

	Completion Date
I) Railbelt Energy Demand	March 18, 1987
A) Projected Railbelt Electrical Demand	
B) Demand for Bradley Lake Power	
C) Existing Installed Capacity and Retirement Schedules in Light of Current Revised Demand Forecasts.	
II) Bradley Lake Project	March 18, 1987
A) Examination of OMB's Feasibility Analysis	
B) Economic Feasibility Compared to Gas Alternative	
III) PURPA Generating Facilities	April 9, 1987
A) Regulatory background	
B) Bradley Lake Project Financing and Power Sales Agreements	
IV) Additional Issues	
A) Long-Term Gas Availability for Power Generation	April 10, 1987
B) Bradley Lake Restoration Requirements by FERC	
V) Transmission Lines	May 1, 1987
A) Kenai-Anchorage Transmission Line:	
1) Current and Projected Electrical Demand in Kenai and Anchorage	
2) Power Displacement: Generating Capacity	
3) Existing Line Reliability and Upgradability	
4) Natural Gas Price Differential Between Kenai and Anchorage	
5) Cost of Four Alternate Routes	

Completion Date

B) Anchorage-Fairbanks Intertie — May 1, 1987
   1) Current and Projected Electrical Demand in Anchorage and Fairbanks
   2) Current Intertie Usage/Revenue Sharing, Reliability
   3) Impact of Fuel Oil Prices on Intertie Usage

C) Review/Critique Alaska Power Authority Transmission Lines Analyses — May 1, 1987

D) Cost/Benefit Analyses for Transmission Lines — May 1, 1987
   1) Anchorage-Kenai
      a) No change
      b) Upgrade existing line
      c) New line

   2) Anchorage-Fairbank
      1) No change
      2) Total upgrade
      3) Upgrade sections over time

VII) **Financing Mechanisms for Bradley Lake and Transmission Lines** — May 1, 1987

A) Identify Existing Funding Sources
   1) Railbelt Energy Fund
   2) Accrued Interest
   3) Remainder of Bradley Appropriations
   4) Bond Market

B) Financing Scenarios
   1) Examine various financing mechanisms with respect to State contribution, consumer rates, and the long-term integrity of a Railbelt Energy Fund
   2) Bradley Lake Project Only
      a) Utilities pay $175 million bond, State pays remainder
      b) State contributes larger subsidy
      c) Four-dam pool loan concept
   3) Bradley Lake Plus Kenai and/or Fairbanks Intertie(s)
      a) Spend all of Railbelt Energy Fund
      .
      .
      z) Railbelt Fund as a revolving loan fund to pay for tranmission lines over time

RAILBELT ENERGY PLAN

April 8, 1987

Last year, after the Susitna Hydroelectric Project was cancelled, the Legislature established the Railbelt Energy Fund and the Railbelt Energy Council. The purpose of the Railbelt Energy Fund was to reserve approximately $280 million, previously earmarked for Susitna, for other Railbelt energy projects. A major purpose of the Railbelt Energy Council was to recommend such projects.

In creating the Railbelt Energy Fund and the Railbelt Energy Council, legislators and administration officials made one thing very clear to the seven electric utilities in the region: They needed to agree on a plan of action and they needed to work with and through the Railbelt Energy Council.

This has been done.

For the first time ever, all seven Railbelt utilities, which together serve more than three quarters of the State's population, have agreed on a Railbelt energy development plan. That plan consists of two basic elements: Completion of the Bradley Lake Hydroelectric Project and completion of a solid Railbelt transmission intertie system.

The plan was unanimously recommended by the Railbelt Energy Council in its January 24, 1987, report to the Legislature. Moreover, the plan has been endorsed by a broad Railbelt coalition that includes business, labor and government leaders. Many local governments and chambers of commerce throughout the Railbelt have passed formal resolutions of support.

Among the governmental entities are the Anchorage Municipal Assembly, Fairbanks City Council, Matanuska-Susitna Borough, Wasilla City Council, Palmer City Council, Kenai Peninsula Borough, Homer City Council, Kenai City Council and Soldotna City Council, as well as the Kenai Caucus and Unified Fairbanks organizations. Labor supporters include the Alaska AFL-CIO and its 48 unions and affiliates, including the International Brotherhood of Electrical Workers Local 1547, and Teamsters Union Local 959. Local chambers of commerce that have passed resolutions include Anchorage, Fairbanks, Wasilla, Palmer, Big Lake, Willow, Talkeetna, Kenai, North Kenai and Homer. The Alaska State Chamber of Commerce has made the Bradley Lake project and the intertie system one of its highest legislative priorities.

-- Regional cooperation and coordination will be improved, as already evidenced through the establishment of the Railbelt Energy Council and the Railbelt energy coalition.

BRADLEY LAKE

The major benefit of the Bradley Lake project is the assurance of a stable, long-term supply of low-cost power, to be shared throughout the Railbelt utilizing the proposed intertie system. Because of higher capital costs, hydroelectric power is initially more expensive than that from fossil fuel plants. However, Bradley Lake energy is expected to become cheaper than the least-cost alternative of natural gas within the first five to seven years of Bradley's operation. The real payoff is that hydroelectric projects like Bradley Lake will last up to 100 years, compared to 20 or 30 years for gas turbines and other fossil-fuel generation facilities.

It is very important to remember that Bradley Lake will be more than an additional power source for the Railbelt. It will also be replacement power, because many of the region's existing gas-fired generation units will be wearing out in the early and mid-1990s.

The current plan, agreed to by all seven Railbelt utilities, is for the State and those utilities -- through long-term power sales agreements -- to split the cost of the project. Under the current $350 million cost estimate, the State's contribution would be $175 million, which is $43 million less than a previously agreed-to state equity share of $218 million. Should the cost of Bradley drop further, as many expect it will, the State's contribution would be reduced proportionately.

Of the $175 million from the State, $118 million already has been committed to project. The Governor has introduced legislation -- S.B. 159 and H.B. 165 -- to appropriate an additional $50 million from the Railbelt Energy Fund, to replace $50 million previously approved from the general fund but later rescinded. With the $118 million, the $50 million will bring the State's Bradley Lake contribution to $168 million, or within $7 million of the currently proposed $175 million. It is expected that the final $7 million will be appropriated by the current Legislature for fiscal 1988. Approximately $50 million already has been spent on the project, much of it for site preparation and support facilities.

THE INTERTIES

Construction has not yet begun on the interties, but studies are well under way. An economic analysis on both the southern and northern interties has been completed. So has a preliminary engineering feasibility study on the southern intertie, with the final report due in the very near future. An engineering feasibility study on the northern intertie is in progress, with a final report due in early May. It is important that environmental work commence this year so the transmission system can be in place when the Bradley Lake project comes on line, or as soon afterward as possible.

CORRECTION

THIS DOCUMENT
HAS BEEN REPHOTOGRAPHED
TO ASSURE LEGIBILITY

RAILBELT ENERGY PLAN

April 8, 1987

Last year, after the Susitna Hydroelectric Project was cancelled, the Legislature established the Railbelt Energy Fund and the Railbelt Energy Council. The purpose of the Railbelt Energy Fund was to reserve approximately $280 million, previously earmarked for Susitna, for other Railbelt energy projects. A major purpose of the Railbelt Energy Council was to recommend such projects.

In creating the Railbelt Energy Fund and the Railbelt Energy Council, legislators and administration officials made one thing very clear to the seven electric utilities in the region: They needed to agree on a plan of action and they needed to work with and through the Railbelt Energy Council.

This has been done.

For the first time ever, all seven Railbelt utilities, which together serve more than three quarters of the State's population, have agreed on a Railbelt energy development plan. That plan consists of two basic elements: Completion of the Bradley Lake Hydroelectric Project and completion of a solid Railbelt transmission intertie system.

The plan was unanimously recommended by the Railbelt Energy Council in its January 24, 1987, report to the Legislature. Moreover, the plan has been endorsed by a broad Railbelt coalition that includes business, labor and government leaders. Many local governments and chambers of commerce throughout the Railbelt have passed formal resolutions of support.

Among the governmental entities are the Anchorage Municipal Assembly, Fairbanks City Council, Matanuska-Susitna Borough, Wasilla City Council, Palmer City Council, Kenai Peninsula Borough, Homer City Council, Kenai City Council and Soldotna City Council, as well as the Kenai Caucus and Unified Fairbanks organizations. Labor supporters include the Alaska AFL-CIO and its 48 unions and affiliates, including the International Brotherhood of Electrical Workers Local 1547, and Teamsters Union Local 959. Local chambers of commerce that have passed resolutions include Anchorage, Fairbanks, Wasilla, Palmer, Big Lake, Willow, Talkeetna, Kenai, North Kenai and Homer. The Alaska State Chamber of Commerce has made the Bradley Lake project and the intertie system one of its highest legislative priorities.

THE PROJECTS

The Bradley Lake Project is a 90-megawatt hydroelectric facility under construction near Homer. It is scheduled for completion in 1990, and is designed to accommodate future enlargement to 135 megawatts. The Railbelt transmission system has two components: Upgrade of the existing 138-kilovolt Anchorage-Fairbanks transmission line to 345 kilovolts, and construction of a 230-kilovolt circuit from Anchorage to the lower Kenai Peninsula.

Bradley Lake was originally estimated to cost $408 million, including financing. That figure is now down to $350 million, and may drop even more given the sluggish economy and lower than expected inflation growth. The interties are estimated to cost $200 million. That figure, too, could drop.

BENEFITS

Separate studies by the Division of Policy in the Governor's Office, the House Research Agency and the Alaska Power Authority all show positive benefits for Bradley Lake and the interties, even when considered on their own.

A February 25, 1987, analysis by the Division of Policy and a March 18, 1987, analysis by the House Research Agency both estimate savings of approximately $85 million for Bradley Lake over the natural gas-fired generation alternative. Even under a much more conservative and unlikely scenario where the gas alternative would be delayed from the early 1990s to 1998, the House Research Agency analysis still projects savings of $36 million for Bradley Lake.

A March 1987 economic analysis prepared by a private consultant for the APA shows total quantifiable benefits of $423 million for the Anchorage-Fairbanks and Anchorage-Kenai Peninsula interties combined. This does not count other, less quantifiable benefits such as increased power system reliability and the facilitation of economic development.

Although the utilities believe the benefits cited in the above studies are understated, and that savings may be even higher, all the work to date agrees that Bradley Lake and the interties have a positive value as independent projects. When considered together, the benefits are even greater. Among the benefits of the combined Bradley Lake-intertie plan are these:

-- Long-term electric rates will be lower than otherwise for the majority of consumers in the State.

-- Regional power reliability will be significantly improved.

-- Generation resources, including future development, will be more diversified.

-- Economic development opportunities, including jobs, will be substantially enhanced.

-- Regional cooperation and coordination will be improved, as already evidenced through the establishment of the Railbelt Energy Council and the Railbelt energy coalition.

BRADLEY LAKE

The major benefit of the Bradley Lake project is the assurance of a stable, long-term supply of low-cost power, to be shared throughout the Railbelt utilizing the proposed intertie system. Because of higher capital costs, hydroelectric power is initially more expensive than that from fossil fuel plants. However, Bradley Lake energy is expected to become cheaper than the least-cost alternative of natural gas within the first five to seven years of Bradley's operation. The real payoff is that hydroelectric projects like Bradley Lake will last up to 100 years, compared to 20 or 30 years for gas turbines and other fossil-fuel generation facilities.

It is very important to remember that Bradley Lake will be more than an additional power source for the Railbelt. It will also be replacement power, because many of the region's existing gas-fired generation units will be wearing out in the early and mid-1990s.

The current plan, agreed to by all seven Railbelt utilities, is for the State and those utilities -- through long-term power sales agreements -- to split the cost of the project. Under the current $350 million cost estimate, the State's contribution would be $175 million, which is $43 million less than a previously agreed-to state equity share of $218 million. Should the cost of Bradley drop further, as many expect it will, the State's contribution would be reduced proportionately.

Of the $175 million from the State, $118 million already has been committed to project. The Governor has introduced legislation -- S.B. 159 and H.B. 165 -- to appropriate an additional $50 million from the Railbelt Energy Fund, to replace $50 million previously approved from the general fund but later rescinded. With the $118 million, the $50 million will bring the State's Bradley Lake contribution to $168 million, or within $7 million of the currently proposed $175 million. It is expected that the final $7 million will be appropriated by the current Legislature for fiscal 1988. Approximately $50 million already has been spent on the project, much of it for site preparation and support facilities.

THE INTERTIES

Construction has not yet begun on the interties, but studies are well under way. An economic analysis on both the southern and northern interties has been completed. So has a preliminary engineering feasibility study on the southern intertie, with the final report due in the very near future. An engineering feasibility study on the northern intertie is in progress, with a final report due in early May. It is important that environmental work commence this year so the transmission system can be in place when the Bradley Lake project comes on line, or as soon afterward as possible.

The Railbelt intertie system has a number of benefits, some quantifiable and some not easily quantifiable but nonetheless important. Here are some of them, as listed in the economic analysis:

Economy power interchanges -- The interties will permit the displacement of higher-cost generation in one area of the Railbelt with the lowest-cost generation from any other area. This will produce substantial savings for consumers.

Sharing of generation reserves -- The interties will allow one or more utilities to forego building or maintaining the amount of reserve generation capacity that would otherwise be necessary. Instead, those utilities could rely on reserves available elsewhere in the interconnected system.

Siting flexibility for new generation plants -- The interties will provide much greater flexibility in siting new generation plants within the Railbelt wherever the costs of operation -- including, importantly, fuel costs -- are the lowest.

Improved system reliability -- The interties will greatly improve electric system reliability throughout the Railbelt. For the first time, every Railbelt utility will have access to enough power from other systems to cope with any emergency or maintenance requirement. This will translate into fewer and briefer outages.

Increased system efficiency -- Transmission losses of electric energy are reduced in higher voltage circuits, such as the interties. It is estimated that line losses between Anchorage and the lower Kenai Peninsula will be reduced by 80 percent, while losses between Anchorage and Fairbanks will be reduced by 60 percent. Transmission loss reductions of this magnitude will result in many thousands of dollars in savings.

Increased utility coordination -- By virtue of its existence, a strong regional transmission grid will foster improved coordination and cooperation among Railbelt utilities. This will lead to increased participation in future generation and other power projects, with attendant sharing of costs and savings.

Distribution of Bradley Lake benefits -- The interties will enable all seven Railbelt utilities to directly participate in the Bradley Lake project, thereby spreading the costs and the benefits over a much wider base. With the limited existing transmission facilities, only Homer Electric Association and Chugach Electric Association could directly access Bradley Lake power.

Enhanced competition among fuel suppliers -- A major benefit of the interties is that they will improve access by all seven Railbelt utilities to a variety of generation fuel sources throughout the region. For example, power generation using cheaper wellhead natural gas on the Kenai Peninsula is presently constrained by a limitation in transmission capacity. With the interties, each utility will have a broader range of energy supply alternatives, and the utilities' bargaining positions with respect to potential fuel suppliers will be strengthened.

Another very important general benefit of the interties is that they will facilitate economic development and commerce, the results of which will be felt even beyond the Railbelt. In this respect, the interties are analogous to a highway, whose contribution to economic development and commerce is easily understood yet difficult to model. Where a highway carries motor vehicles, the interties will carry an equally essential commodity -- electric energy. Like good roads, a good electric transmission system is essential to a region's development.

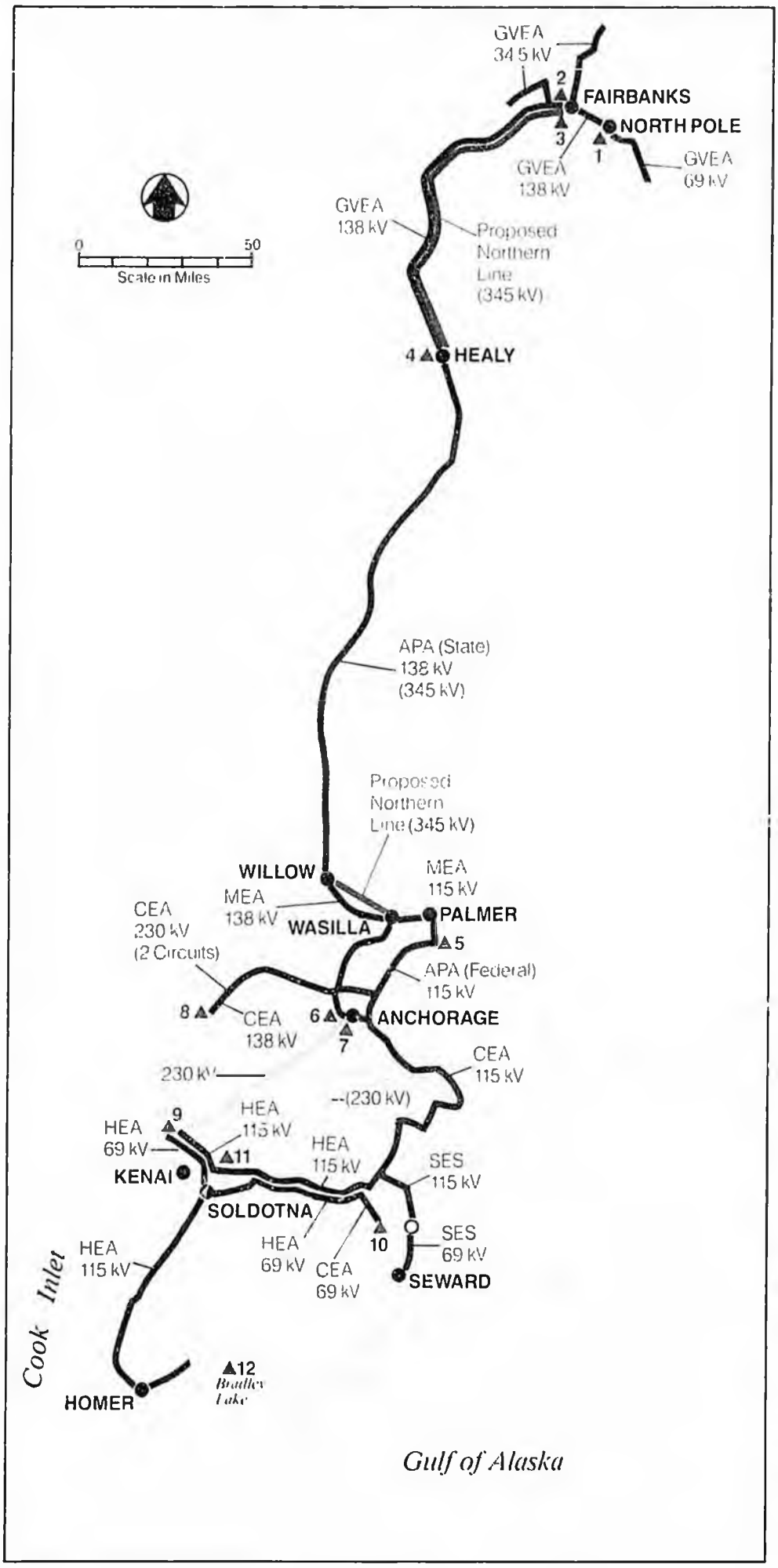
SUMMARY

The program to complete the Bradley Lake project and the Railbelt interties is sound. The projects will benefit the majority of Alaska's consumers, and there is unprecedented support from a broad spectrum of interests, including every electric utility in the region as well as labor, business and local government.

Both the Bradley Lake project and the interties are bona fide public works projects, and they will pay long-term dividends. The Railbelt's power supply network will be strengthened in a number of ways, including reliability and lower-cost generation in the future. The regional and statewide economies -- including the job sector -- will be stimulated during construction and for many years to come.

While there inevitably is disagreement over how best to use public funds, especially during times when revenues are less plentiful, there is a demonstrable need for the Bradley Lake project and the intertie system. This program fulfills a high public purpose.

:rbprog



Railbelt Generation and Transmission Systems

LEGEND

- Community
- ▲ Generation Station
- 2 Generation Station Identification Number
- 230 kV Line Capacity
- O Line Capacity Change
- Northern Line (Proposed)
- Fritz Creek Transmission Line (Proposed)
- Enstar Gas Pipeline Route (Proposed)
- Tesoro Products Line Route (Proposed)
- Transmission Line Route (Existing)

Prepared by ARECA

1. Oil Fired Generation — 121.8 mW — Golden Valley Electric Association — North Pole
2. Oil Fired Generation — 40.6 mW — Fairbanks Municipal Utilities System — Fairbanks
   Coal Fired Generation — 28.6 mW — Fairbanks Municipal Utilities System — Fairbanks
3. Oil Fired Generation — 51 mW — Golden Valley Electric Association — Fairbanks
4. Coal Fired Generation — 25 mW — Golden Valley Electric Association — Healy
5. Hydroelectric Generation — 30 mW — Alaska Power Administration (Federal) — Eklutna
6. Natural Gas Generation — 330 mW — Anchorage Municipal Light & Power — Anchorage
7. Natural Gas Generation — 49.4 mW — Chugach Electric Association — Anchorage
8. Natural Gas Generation — 360 mW — Chugach Electric Association — Beluga
9. Natural Gas Generation — 81.7 mW — Chugach Electric Association — Bernice Lake
10. Hydroelectric Generation — 17.4 mW — Chugach Electric Association — Cooper Lake
11. Natural Gas Generation — 38.5 mW — Alaska Electric Generation & Transmission — Soldotna
12. Hydroelectric Generation — 90 mW — Alaska Power Authority (State) — Bradley Lake

Alaska State Legislature

Senate Advisory Council

P.O. Box V
State Capitol
Juneau, Alaska 99811
Phone: (907) 465-3114

MEMORANDUM

TO: Representative S. Cotten
Capitol, Rm. 110

FROM: Kurt S. Dzinich KSD
Senior Advisor

DATE: March 3, 1987

RE: APUC vs APA Jurisdictional Dispute
Request #87-002503

In response to your request, I am providing you with a brief summary of the APA vs APUC dispute which resulted from the APUC legislation passed in 1986 i.e. AS 42.05.431(b). The dispute is whether APUC has the authority to review and approve wholesale power sale agreements or contracts between APA and a public utility.

Prior to 1986, the APUC did not have authority to review wholesale power sale agreements between APA and a public utility as defined in AS 42.05.720. With the passage of AS 42.05.431(b) in 1986, and according to the AG, the APUC now has that authority. I have attached copies of pertinent documentation for your information.

My research indicates that the controversial section was a result of a compromise between the APUC and the utilities and that the result was exactly opposite of what the utilities had intended, i.e. less power and authority for the APUC. The statute as it exists now could be very detrimental not only to the Bradley project power sale agreements, but to earlier power sale agreements between APA and the four-dam pool participants. Specifically, the statute will make it more difficult to obtain revenue bond financing because bond buyers are now faced with the prospect that APUC could require renegotiation of the terms at some uncertain, future date.

I believe that the only way out of this self-inflicted dilemma is through corrective legislation. Please let me know if there are further questions.

KSD:jts

Attachments

STATE OF ALASKA

STEVE COWPER, GOVERNOR

ALASKA PUBLIC UTILITIES COMMISSION
DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

420 L STREET
SUITE 100
ANCHORAGE, ALASKA 99501
(907) 276-6222

February 2, 1987

Honorable Grace Schaible
Attorney General
State of Alaska
Box K
Juneau, Alaska 99811

Dear Madame Attorney General:

This letter is to request a Formal Opinion on the issue of whether or not a wholesale power contract between the Alaska Power Authority (APA) and a regulated public utility is subject to the approval of the Alaska Public Utilities Commission (Commission). Although prior to 1986 it may have been clear that the Commission had no authority to approve such a contract, it appears that this may have changed with the passage of AS 42.05.431(b) in 1986.

This issue has been presented to the Commission in the context of a case involving an independent power producer who wishes to sell power to the Municipality of Anchorage d/b/a Municipal Light and Power Department (ML&P) pursuant to the Public Utility Regulatory Policies Act of 1978 and who has requested the Commission to prohibit ML&P from entering a contract for the purchase of power from the Bradley Lake Hydroelectric Project. A copy of our preliminary decision in that matter is enclosed. If you need any further information on the subject, please contact James Jackson, Hearing Officer, in this office.

I would respectfully request that primary responsibility for the drafting of the Opinion on this issue not be assigned to any of the Assistant Attorneys General assigned to either the APA or the Commission. In that way the Opinion cannot be questioned based on any alleged bias of the author.

I appreciate your assistance in this matter.

Sincerely,

Marvin R. Weatherly
Chairman

SLH

APPENDIX A
(U-86-96(3)

MEMORANDUM State of Alaska

TO Marvin R. Weatherly, Chairman
Alaska Public Utilities Commission
420 "L" Street #100
Anchorage, Alaska 99501

DATE February 18, 1987

FILE NO 663-87-0365

TELEPHONE NO: (907)465-3600

THRU

SUBJECT Power purchase contract between Alaska Power Authority and Municipal Light & Power

FROM Grace Berg Schaible
Attorney General

By: Richard D. Monkman
Assistant Attorney General

You have asked for our opinion on whether a power purchase contract between the Alaska Power Authority (Authority) and Municipal Light & Power (ML&P) is subject to approval by the Alaska Public Utilities Commission (Commission) under AS 42.05.431(b). In brief, our review indicates that the analysis in the Commission's Order No. 3 in Case U-86-96 is correct, and that this contract is subject to review by the Commission under AS 42.05.431(b).

First, it appears undisputed that the Authority is a "public utility" as that term is defined in AS 42.05.720(4)(A). The Authority is a public corporation empowered to operate and maintain power projects and "to enter into contracts with any person . . . for the purchase, sale, exchange, transmission, or use of power from a project[.]" AS 44.83.020; AS 44.83.080(5), (11). This fits squarely within the definition of a public utility: a corporation (including a public corporation) "that owns, operates, manages or controls any plant, pipeline or system for . . . furnishing, by generation, transmission or distribution, electrical service to the public for compensation[.]" AS 42.05.720(4)(A). 1/

The Authority is an unregulated public utility, exempt from the Commission's jurisdiction by operation of

---

1/ The "public" is defined in AS 42.05.720(3)(B) as including "any utility" which resells power to a group of 10 or more consumers, a definition which would include Anchorage's Municipal Light & Power.

AS 44.83.090(b). The exemption was apparently intended to enhance the ability of the Authority to obtain bond financing for its projects. See 1984 Memorandum to Larry Crawford (July 31; C. Jones, AAG) ("APUC jurisdiction over APA power sales agreements"), attached, and legislative history cited therein.

However, while the Authority is exempt from Commission jurisdiction by AS 44.83.090(b), ML&P is not. ML&P is a regulated public utility and is subject to the Commission's jurisdiction. The exemption provided to the Authority by AS 44.83.090(b) specifically states that:

> Nothing in AS 44.83.101 -- 44.83.425 [the Alaska Power Authority statutes]. . . diminishes or otherwise alters the jurisdiction of the Alaska Public Utilities Commission with respect to any public utility, including any right the commission may have to review and approve or disapprove contracts for the purchase of electricity by a public utility.

AS 44.83.090(b) (emphasis supplied).

The question posed, therefore, is whether the Commission has "any right . . . to review and approve or disapprove contracts for the purchase of electricity" by ML&P, including the contract at issue.

Our 1984 memorandum concluded that the Commission did not have authority at that time to review, approve, or disapprove electric power purchase contracts by a public utility. 1984 Memorandum, supra (attached). 2/ Since the Commission did not have "any right . . . to approve or disapprove contracts for the purchase of electricity" by a public utility, electric power purchase contracts between regulated public utilities and the Authority were not subject to the Commission's review.

However, as you note, the legislature has since passed AS 42.05.431(b), sec. 5, ch. 104, SLA 1986. This section states

---

2/ "[W]e can find no authority in AS 42.05 which would permit the Commission to review these wholesale purchase agreements from the point of view of the utility as a purchaser" (emphasis in original).

that a "wholesale power agreement between public utilities is subject to advance approval" of the Commission. The new statute gives the Commission the "right" to review electric power purchase contracts by regulated public utilities which was lacking at the time of our 1984 opinion.

The primary guide in statutory interpretation is "the language used, construed in light of the purpose of the enactment." Commercial Fisheries Entry Commission v. Apokedak, 680 P.2d 486, 489-90 (Alaska 1984). The proposed power purchase contract is "for the purchase of electricity by a public utility." AS 44.83.090(b). It is a contract between "public utilities," and all such contracts are "subject to advance approval of the commission." AS 42.05.431(b). The plain words of these statutes indicate that the proposed agreement would be subject to review and prior approval by the Commission.

The "purpose of the enactment" in this instance does not conflict with the plain language. The 1986 enactment of AS 42.05.431(b) was in House Bill 314, which began as a short "sunset" re-authorization bill for the Commission. HB 314 grew into a complex, lengthy, and controversial package of amendments to the Commission statute, see, e.g., 1986 House J. 3181-90, 3197-209, but was drastically shortened again before final passage. Compare HB 314 with CSHB 314(Fin) and SCS HB 314(Fin). AS 42.05.431(b) surfaced without comment in the House Finance Committee version of the bill, and remained unchanged in all material respects from the date of its introduction until final passage.

The only comment we have found on the purpose of this section is in a letter from Attorney General Brown to Governor Sheffield, reviewing HB 314 after it was passed by the legislature. The letter states, "The commission's authority to approve wholesale power agreements would be made explicit" by AS 42.05.431(b). Letter, June 4, 1986, A.G. File No. 883-86-0135. This is in accord with our conclusion that the plain meaning of the statute gives the Commission authority to review the contract at issue.

We note also that the powers of the Commission are to be "liberally construed." AS 42.05.141. Review of a ten-year electric power purchase contract by a regulated public utility appears to be within the authority of the Commission under AS 42.05.431(b). Therefore, we conclude that the Commission does have the authority to review this contract.

We are informed by the Authority that Commission review of its contract with ML&P will adversely affect the Authority's ability to obtain bond financing for the Bradley Lake hydroelectric dam project in a timely manner. We suggest that the Commission promptly contact the Authority and discuss possible legislative action which would resolve the situation in the best interests of the public.

RDM:nb

attachment

cc: Alaska Power Authority

MEMORANDUM State of Alaska

TO Larry Crawford
Executive Director
Alaska Power Authority

DATE July 31, 1984

FILE NO 166-568-84

TELEPHONE NO 276-3550

FROM Norman C. Gorsuch
Attorney General
By: Carolyn E. Jones
Assistant Attorney General

SUBJECT APUC jurisdiction over APA power sales agreements

You have asked what jurisdiction, if any, the Alaska Public Utility Commission (APUC) has to review and approve an agreement in which a local utility regulated by the APUC contracts to buy power from the Alaska Power Authority (APA). As we understand the facts, the APA anticipates selling and five local utilities intend to buy hydroelectric power generated by the "Four Dam Pool." One of the regulated utilities has questioned whether the APUC has jurisdiction to approve a wholesale agreement for hydroelectric power and the rates charged under the agreement. We conclude that the APUC has statutory jurisdiction to examine the terms of a local utility's wholesale power agreement with the APA only if the APUC has reason to investigate, as set out in AS 42.05.511 the local utility's management practices involved in entering the wholesale agreement. The APUC does not have authority to review rates or practices of the APA, and does not, in ordinary circumstances, approve a utility's wholesale power purchase agreements.

When the legislature first created the Alaska Power Authority, it provided that any contracts to sell power would be subject to review by the APUC. AS 44.56.090(8). This provision was consistent with the APUC's general authority, set out in AS 42.05.370 1/ to review contracts for the sale of electric power by a public utility because the APA was a public utility as defined in the APUC Act.

1/ AS 42.05.370 provides, in part,

> [E]very public utility shall file with the Commission . . . its complete tariff . . . and all classifications, rules, regulations, and terms and conditions under which it furnishes its services and facilities . . . to regulated or municipally owned utility for resale to the public, together with a copy of every special contract with customers which in any way affects or

(Footnote Continued)

Two years later, however, the legislature substantially amended AS 44.56.090 to provide, in part, that the APA would not be subject to the jurisdiction of the APUC. AS 44.56.090(b) (Renumbered in 1981 as AS 44.83.090(b). In his April 6, 1977 transmittal letter, Governor Hammond stated that the purpose of the proposed amendment was to clarify the relationship between the authority and the APUC by providing that the APUC would not have jurisdiction over the APA. Committee Report - House Finance, April 19, 1978 at . A review of the testimony before both the House and Senate Finance Committees reveals that the practical effect of this clarification was to eliminate problems the authority was having in financing its projects through the sale of bonds. Committee Minutes - House Finance, April 10, 1978 at 374; testimony of Eric Yould, Executive Director, Alaska Power Authority, id at 374, 376; testimony of Argetsinger, ("Bond people get very nervous when any outside agency gets into control.").

A second question is whether, in spite of AS 44.83.090(b), the APUC has jurisdiction to review the APA wholesale power agreements as part of its regulation of the purchasing utility. If so, the intent of AS 44.83.090(b) could be defeated. If the APUC has authority to approve or disapprove a wholesale power agreement that the purchasing utility intended to sign with the APA, the practical effect would be the same as if the APA had to submit the agreement to the APUC. The APA would not be able to market its bonds and finance construction of its power projects. Furthermore, while the APUC clearly has the authority to investigate a utility's rates when the utility is the selling utility, we can find no authority in AS 42.05 which would permit the APUC to review these wholesale purchase agreements from the point of view of the utility as a purchaser. See AS 42.05.141 (general powers and duties of APUC include investigating utility's rates and making and requiring just, fair and reasonable rates); AS 42.05.431 (APUC may fix just and reasonable rate after investigation and hearing).

The APUC does, however, have broad statutory authority to examine the management practices of a utility, AS 42.05.511 2/

(Footnote Continued)
relates to the serving utility's rates, tolls, charges, rentals, classifications, services or facilities.

2/ Sec. 42.05.511. Unreasonable management practices. (a)
(Footnote Continued)

. This broad authority has never been interpreted by the Alaska Supreme Court. It is conceivable that the APUC could rely on this power to investigate the wholesale power purchase agreement if it perceived that the utility had engaged in imprudent management by entering the APA agreement. This action, however, would have to be considered extraordinary, and be supported by some evidence of imprudence or inefficiency. Even if the APUC were to conduct such an investigation, it is not clear that disapproving or setting aside a wholesale power agreement with the APA would be a permissible remedy.

CONCLUSION

The APUC lacks the authority to approve or disapprove a wholesale power agreement by which the APA sells its hydroelectric power to a regulated electric utility. Once the APA and the purchasing utility have agreed to the sale and the rates charged under the agreement, no further authorization is necessary to enter into such an agreement. However, this conclusion does not suggest that the APUC would be precluded from examining the APA wholesale power agreements under its broad "management practices" authority in appropriate circumstances.

CEJ:cah

(Footnote Continued)
The commission may investigate the management of a public utility, including but not limited to staffing patterns, wage and salary scales and agreements, investment policies and practices, purchasing and payment arrangements with affiliated interests, for the purpose of determining inefficient or unreasonable practices which adversely affect the cost or quality of service of the public utility.

(b) Where unreasonable practices are found to exist, the commission may, after providing reasonable notice and opportunity for hearing, take appropriate action to protect the public from the inefficient or unreasonable practices and may order the public utility to take the corrective action the commission may require to achieve effective development and regulation of public utility services.

SENATE ADVISORY COUNCIL
POUCH V
JUNEAU, ALASKA 99811
465-3114

TO: Representative S. Cotten

FROM: Senate Advisory Council Staff

DATE: March 3, 1987

RE: Informational Release: Request # 87-002503
APUC vs APA Jurisdictional Dispute

Thank you for your recent request for assistance. Attached is the material you requested. This information will remain confidential unless we receive your approval for release.

Please check the appropriate box and return to Mail Stop 3100 or the above mailing address.

☐ I approve the release of this information.

☐ I approve the release of this information, but please remove my name.

☐ I do not approve the release of this information at this time.

If we can be of further service, please do not hesitate to contact us.

DATE _____ SENATOR _____

SB

167

HOUSE COMMITTEE REPORT

(9)

Date referred: 4/17/87

FURTHER REFERRALS: Finance

DATE: 5/3/87

The Resources Committee has considered HCS SB 167 (Res)

"An Act relating to grants for water supply, sewage, and solid waste facilities; establishing a revolving loan fund; and providing for an effective date."

RECOMMENDS:

[ ] replace with _____ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[✓] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: [✓] 5/2 letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published 3/17/87

[ ] same as previous zero fiscal note published _____

SIGNING DO PASS:

SIGNING OTHER RECOMMENDATIONS:

Jan Goodenough

Chairman's signature

House Resources Committee
LETTER OF INTENT

TO HCS CSSB 167(Resources)

It is the intent of the Legislature that a community seeking financial assistance from the Alaska Clean Water fund (AS 46.03.032) for costs associated with wastewater treatment facility construction, should first pursue loan funds before applying for state water and sewer grant funds.

Co-Chair, House Resources
May 2, 1987

Co-Chair, House Resources
May 2, 1987

LETTER OF INTENT

TO HCS CSSB 167(Resources)

It is the intent of the Legislature that a community seeking financial assistance from the Alaska Clean Water fund (AS 46.03.032) for costs associated with wastewater treatment facility construction, should first pursue loan funds before applying for state water and sewer grant funds.

STATE OF ALASKA
THE LEGISLATURE

POUCH V STATE CAPITOL
JUNEAU ALASKA 99811
907 465 3800

LEGISLATIVE AFFAIRS AGENCY

MEMORANDUM May 2, 1987

SUBJECT: Dedicated funds (Draft HCS SB 167 (Resources) - 5/2/87)

TO: Representative John Sund

FROM: Teresa B. Cramer TBC
Legislative Counsel

The most recent version of HCS SB 167 (Resources) provides, in Sec. 46.03.032(n), that principal repayments from loans made with state appropriations in excess of the federal matching requirements shall be deposited in the clean water fund. It requires that the interest portion of loan repayments and the earnings on those amounts be deposited in the general fund.

You have requested an opinion concerning whether retaining those principal repayment amounts in the clean water fund conflicts with Art. 9, sec. 7 of the state constitution. That section provides

> The proceeds of any state tax or license shall not be dedicated to any special purpose, except as provided in section 15 of this article [Alaska Permanent Fund] or when required by the federal government for state participation in federal programs. This provision shall not prohibit the continuance of any dedication for special purposes existing upon the date of ratification of this section by the people of Alaska.

The Alaska Supreme Court has not ruled whether the dedicated funds prohibition applies to money appropriated to a revolving loan fund to forbid the recycling of the repayments of principal. The amounts in question do not fall within the federal program exception. In an opinion dated November 30, 1982, the Attorney General suggests that

> A strong argument can be made that money once appropriated, regardless of the mechanism utilized, loses its character as revenue for the purpose of the dedicated funds prohibition because the purpose of the prohibition, i.e., that the legislature retain control over state revenues, has been satisfied.
>
> Under this reasoning there would be no unlawful dedication involved in the return to a revolving loan fund of principal repayments on loans. The initial appropriation would suffice to authorize the use of that money for other loans until the legislature reappropriates the unobligated assets of the fund or abolishes the fund. (Emphasis supplied)

It is not possible to answer your question with certainty. However, retaining principal repayments in a revolving loan fund is more likely to survive the prohibition against dedicated funds than retaining repayments of interest or the earnings on the repayments and a strong argument can be made in defense of the legislation.

If I may be of further assistance, please advise.

TC:lmb
L5/085

Enclosure

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

STEVE COWPER, GOVERNOR

POSITION PAPER

Bill No: SB 167

Date: March 16, 1987

Title: An Act relating to grants for water supply, sewage, and solid waste facilities; establishing a Revolving Loan Fund; and providing for an effective date.

Contact: Gary Hayden
465-2610

Department's Position

We support the bill.

Effect of the Bill

SB 167 would create the mechanism the State needs to take advantage of federal dollars authorized under the 1987 amendments to the Clean Water Act. The amendments provide for a transition from a federally funded grant program for sewage treatment facilities to a federally and State funded loan program. About $69 million in federal funds will be available in the next seven years to capitalize a revolving loan fund in Alaska. The State would match with another twenty percent. SB 167 will allow the Department of Environmental Conservation to make low interest loans to communities to construct sewage treatment plants.

The bill also makes adjustments to the existing statute concerning the Department's fifty percent Construction Grants Program.

Impact on the Agency

The proposed revolving loan program would replace the federal grant program being administered by the Department. Therefore, we would administer the proposed loan program with existing staff, with no increase in the operating budget.

Dennis D. Kelso
Commissioner

Position Paper & fiscal note (Revised w/ Halford's amd) given to Halford 3-17-87

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST: _____

Bill Version: SB 167
Publish Date: _____

Revision Date: _____
Title: Grants for water supply & sewage facilities; establishing revolving loan fund
Sponsor: Senator Halford
Requestor: _____

Agency Affected: Environmental Conservation
BRU: Facility Construction & Operation
Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING						
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	2179.0	2152.7	2252.7	2905.4	2179.0
FEDERAL FUNDS	-0-	10895.4	10763.6	11263.6	14527.2	10895.4
OTHER						
TOTAL	-0-	13074.4	12916.3	13516.3	17432.6	13074.4

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary) Passage of the revolving loan fund bill will give the state the ability to accept a total of $69,240,000 in federal dollars to capitalize the fund. Federal funds require a 20% state match. Passage of the bill does not obligate the state to accept the federal dollars or to appropriate the match. *Please see attachment.

Prepared by: Lori Telfer
Phone: 465-2610
Division: Facility Construction and Operation
Date: 3/17/87

Approved by Commissioner: _____
Date: 3/17/87
Agency: Environmental Conservation

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

Attachment 1

FISCAL NOTE ASSUMPTIONS AND ANALYSIS

1 All operating and administrative expenses will be paid by a percentage set aside from annual federal grants to the program. Operating projections have, therefore, been left blank. Additional staff will not be needed. Staff that now administer the federal grant program will administer the federal loan program.

2 Loan repayments to the fund and interest earned by the fund have not been included in this analysis.

3 Federal capitalization grants to the loan fund will be available annually for seven years (FFY 88 - FFY 94). An extension of the fiscal analysis on the front page is given below.

	FY 93	FY 94
General Fund	1,452,720	726,360
Federal Funds	7,262,600	3,631,800
Other	-0-	-0-
Total	8,716,320	4,358,160

SEVEN YEAR TOTAL:

General Fund	$ 13,848,120
Federal Funds	$ 69,240,600
	$ 83,088,720

Alaska State Legislature

ARLISS STURGULEWSKI, Chairman
TIM KELLY, Vice Chairman
RICK HALFORD
MIKE SZYMANSKI
FRED ZHAROFF

P O BOX V
JUNEAU, ALASKA 99811
(907) 465-4989

Senate

Community and Regional Affairs Committee

LETTER OF INTENT
SB 167

It is the intent of the Senate Committee on Community and Regional Affairs that, contingent upon federal requirements, when establishing interest rate policy as defined in AS 46.03.032 (i) (2) and setting interest standards for collateral or security as defined in AS 46.03.032 (i) (4) and (e), the department will adhere to the following;

1. The interest rate charged to a community for loans from the Alaska Clean Water Fund will be 66% of the current rate defined by the Municipal Bond Index for all loans prior to July 1, 1992, and 75% of the current rate for all loans after July 1, 1992; and

2. In order to determine that repayment of loans is secured (as required by federal legislation), the department will perform a financial capability review of the community. This review must demonstrate that the recipient has sufficiently pledged a dedicated revenue stream to repay the loan as well as operate and maintain the facility; and

3. Municipalities that repay loans to the Alaska Clean Water Fund by consumer utility billings will charge a rate that is consistent with the savings realized by municipalities participating in this loan program.

Rick Halford

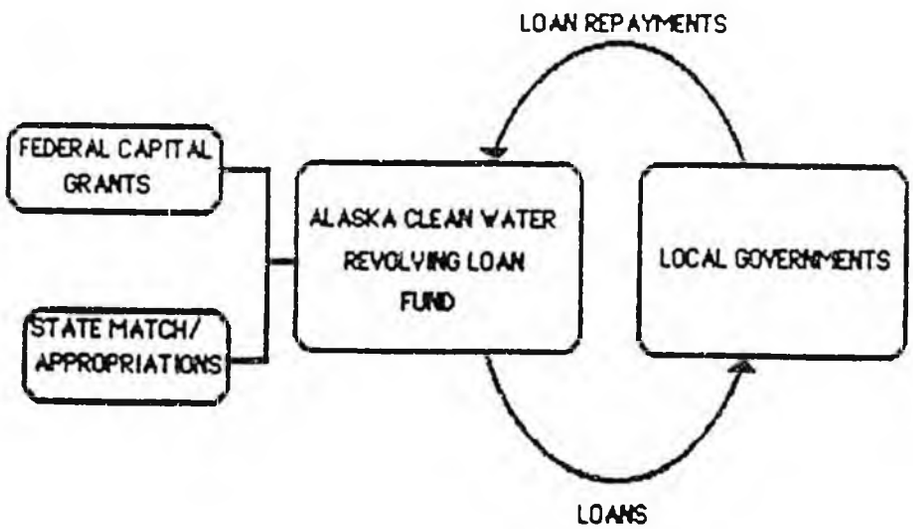
Fred Zharoff

Mike Szymanski

Tim Kelly, Vice Chairman

Arliss Sturgulewski, Chair

THE ALASKA CLEAN WATER REVOLVING LOAN FUND



April 15, 1987

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE REVOLVING WASTEWATER TREATMENT FACILITIES LOAN FUND

BACKGROUND OF FEDERAL GRANTS PROGRAM

-The Federal Government is phasing out its construction grant program for wastewater treatment projects
-Since 1972 $177,161,685 for Alaskan communities
-1982 The Department received full delegation of federal program
-Program will be phased out by 1990

CLEAN WATER REVOLVING LOAN FUND

-From 1987 to 1994, $69,240,600 seed money from the Federal Government available to establish a revolving loan fund for wastewater treatment projects
-Requires 20% state match, for total of $13,848,120
-After 1994 no more federal money will be put into the fund. It should be self sustaining
-Loans will be made at rate less than or equal to the current market rate

PROGRAM ADMINISTRATION

-The existing staff of The Facility Construction and Operation Division will be used for the loan program
-Administrative costs will come from loan fund
-Operation of the loan program will follow current federal construction grants procedures
-Projects selected by same process used in current federal program

TYPES OF ASSISTANCE

-Low interest rate loans
-Refinancing of certain projects
-Guaranteeing or purchasing insurance of local obligations

PROGRESS TO DATE

-Received 23 responses after survey of municipal officials
-Ran computer simulations of loan program
-SB167 sponsored by Senators Halford and Sturgulewski sets up the statutory framework for the Alaska Clean Water Fund
-SB167 was passed out by the Senate Community and Regional Affairs and Senate Finance Committees. It then passed the Senate floor with a 18-0 vote.

EXHIBIT I

HISTORY OF EPA GRANTS BY MUNICIPALITY

MUNICIPALITY	TOTAL FED GRANT AWARDS
ANCHORAGE	$54,982,845
BRISTOL BAY BOR.	$6,131,552
CORDOVA	$3,194,776
DILLINGHAM	$1,526,780
FAIRBANKS	$11,475,009
HAINES	$1,086,224
HOMER	$15,000
JUNEAU	$19,188,866
KENAI	$4,181,559
KETCHIKAN	$12,918,119
KODIAK	$7,553,029
NOME	$308,358
PALMER	$1,056,674
PELICAN	$37,497
PETERSBURG	$6,285,531
SELDOVIA	$18,579
SEWARD	$5,404,575
SKAGWAY	$2,455,092
SITKA	$17,498,197
SOLDOTNA	$2,739,608
UNALASKA	$4,055,070
VALDEZ	$4,889,029
WASILLA	$8,916,207
WHITTIER	$856,420
WRANGELL	$337,089
TOTALS:	$177,161,685

3/16/87

3/17/87

DEPARTMENT OF ENVIRONMENTAL CONSERVATION
FACILITY CONSTRUCTION & OPERATION

ACTIVE PROJECTS

Anchorage	- 020087-04	Point Woronzof Outfall	$ 3,860,307
Anchorage	- 020087-05	Chester Creek Interceptor	2,110,133
Anchorage	- 020087-07	Point Woronzof Phase VI	18,464,000
Anchorage	- 020087-09	Gravity Thickeners	1,788,080
Anchorage	- 020087-10	Effluent Tunnel	4,188,204
Dillingham	- 020066-02	Wastewater Treatment Facility	1,526,720
Juneau	- 020108-01	Mendenhall STP Expansion	13,105,000
Petersburg	- 020047-03	Sewerage Facility	4,055,000
Wasilla	- 020073-02	Sewerage System	6,554,506

3/19/87

COMMUNITIES EXPRESSING AN INTEREST IN THE ALASKA CLEAN WATER FUND.

TWENTY-THREE COMMUNITIES RESPONDED TO THE SURVEY THE DEPARTMENT SENT OUT LAST SEPTEMBER. ALL RESPONDENTS INDICATED AN INTEREST IN THE LOAN PROGRAM. A LISTING OF RESPONDENTS FOLLOWS. IT SHOULD BE NOTED THAT AT THE TIME THE QUESTIONNAIRE WAS SENT OUT, IT WAS BELIEVED THAT THE LOAN FUND WOULD NOT BE AN AVAILABLE SERVICE TO SECOND CLASS CITIES, THEREFORE THEY WERE NOT SURVEYED. WE HAVE SINCE FOUND OUT THAT SUCH CITIES ARE ELIGIBLE TO PARTICIPATE IN THE PROGRAM.

1. KING COVE
2. NORTH SLOPE BOROUGH
3. SAND POINT
4. SOLDOTNA
5. KETCHIKAN GATEWAY BOROUGH
6. YAKUTAT
7. PETERSBURG
8. SITKA
9. CITY OF KETCHIKAN
10. UNALASKA
11. KODIAK ISLAND BOROUGH
12. HAINES
13. CRAIG
14. GALENA
15. BRISTOL BAY BOROUGH
16. JUNEAU
17. FAIRBANKS
18. ST. MARY'S
19. MUNICIPALITY OF ANCHORAGE
20. KODIAK
21. NORTH POLE
22. PELICAN
23. NOME

ISSUE: WHO IS ELIGIBLE TO RECEIVE LOANS FROM THE CLEAN WATER FUND?

THERE ARE THREE FEDERAL REQUIREMENTS WHICH OUTLINE WHO CAN RECEIVE LOANS FROM THE FUND:

FEDERAL WATER POLUTION CONTROL ACT (P.L. 100-4)

THE STATE WILL REQUIRE AS A CONDITION OF MAKING A LOAN ...FROM THE FUND THAT THE RECIPIENT OF SUCH ASSISTANCE WILL MAINTAIN PROJECT ACCOUNTS IN ACCORDANCE WITH GENERALLY ACCEPTED GOVERNMENT ACCOUNTING PROCEDURES."

SEC. 603 (C). "THE AMOUNTS OF FUNDS AVAILABLE TO EACH STATE WATER POLLUTION CONTROL REVOLVING FUND SHALL BE USED ONLY FOR PROVIDING FINANCIAL ASSISTANCE (1) TO ANY MUNICIPALITY, INTERMUNICIPAL, OR STATE AGENCY FOR CONSTRUCTION OF PUBLICLY OWNED TREATMENT WORKS (AS DEFINED IN SEC. 212 OF THIS ACT)."

SEC. 603 (d)(1)(c). "THE RECIPIENT OF A LOAN WILL ESTABLISH A DEDICATED SOURCE OF REVENUE FOR REPAYMENT OF LOANS."

FEDERAL DEFINITION OF "MUNICIPALITY":

"A CITY, TOWN, ETC..HAVING ITS OWN INCORPORATED GOVERNMENT FOR LOCAL AFFAIRS."

AS SEC. 29.08.030:

"GENERAL LAW MUNICIPALITIES ARE OF FIVE CLASSES:
(1) FIRST CLASS BOROUGHS;
(2) SECOND CLASS BOROUGHS;
(3) THIRD CLASS BOROUGHS;
(4) FIRST CLASS CITIES;
(5) SECOND CLASS CITIES;

AS SEC 46.03.900 (PROVIDES DEFINITIONS FOR CHAPTER DEALING WITH POWERS AND LIMITATIONS OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION):

"MUNICIPALITY MEANS AN ORGANIZED BOROUGH OR AN INCORPORATED CITY OUTSIDE AN ORGANIZED BOROUGH, AND INCLUDES ALL CLASSES OF BOROUGHS AND CITIES WHETHER HOME RULE OR OTHERWISE."

APPLICATION

CITIES AND BOROUGHS ARE DISTINCT LEGAL ENTITIES (MUNICIPALITIES) INCORPORATED UNDER THE LAWS OF ALASKA TO PERFORM BOTH REGULATORY AND PROPRIETY FUNCTIONS. THESE POWERS CAN ALLOW A CITY TO PROVIDE A WIDE RANGE OF COMMUNITY SERVICES AND FACILITIES; IN PRACTICE, HOWEVER, POPULATION AND FISCAL CONSTRAINTS SERVE TO LIMIT THE NUMBER PROVIDED BY MANY CITIES. ALTHOUGH ANY INCORPORATED BOROUGH, MUNICIPALITY, FIRST AND SECOND CLASS CITY IS ELIGIBLE BY DEFINITION TO RECEIVE LOANS FROM THE CLEAN WATER FUND, SOME CITIES MAY NOT FIND THE PROGRAM ATTRACTIVE OR FINANCIALLY FEASIBLE DUE TO THE FEDERAL ADMINISTRATIVE AND ACCOUNTING REQUIREMENTS.

CONCLUSION

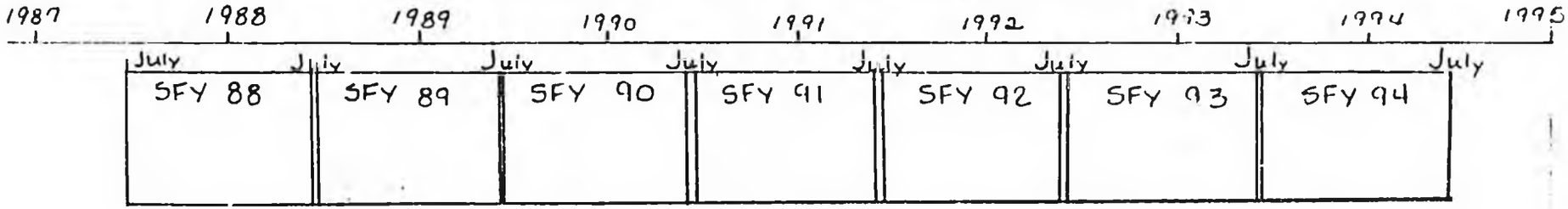
ANY INCORPORATED CITY OR MUNICIPALITY, GENERAL OR HOMERULE, IS ELIGIBLE BY DEFINITION TO RECIEVE A LOAN FROM THE ALASKA CLEAN WATER FUND.

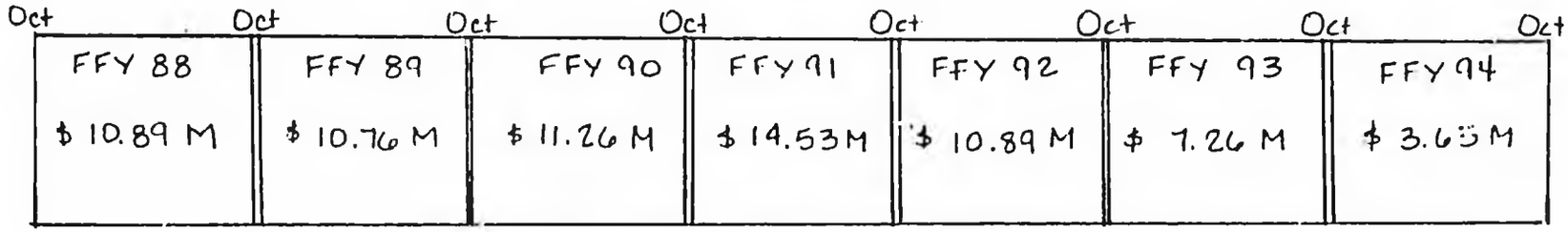
3-17-87 S1516 1

CAPITALIZATION OF THE STATE REVOLVING LOAN FUND

FED F.Y.	FED SEED GRANT	STATE MATCH	TOTAL
88	$10,895,400	$2,179,080	$13,074,480
89	$10,763,600	$2,152,720	$12,916,320
90	$11,263,600	$2,252,720	$13,516,320
91	$14,527,200	$2,905,440	$17,432,640
92	$10,895,400	$2,179,080	$13,074,480
93	$7,263,600	$1,452,720	$8,716,320
94	$3,631,800	$726,360	$4,358,160
TOTALS:	$69,240,600	$13,848,120	$83,088,720

CAPITALIZATION OF THE STATE REVOLVING LOAN FUND

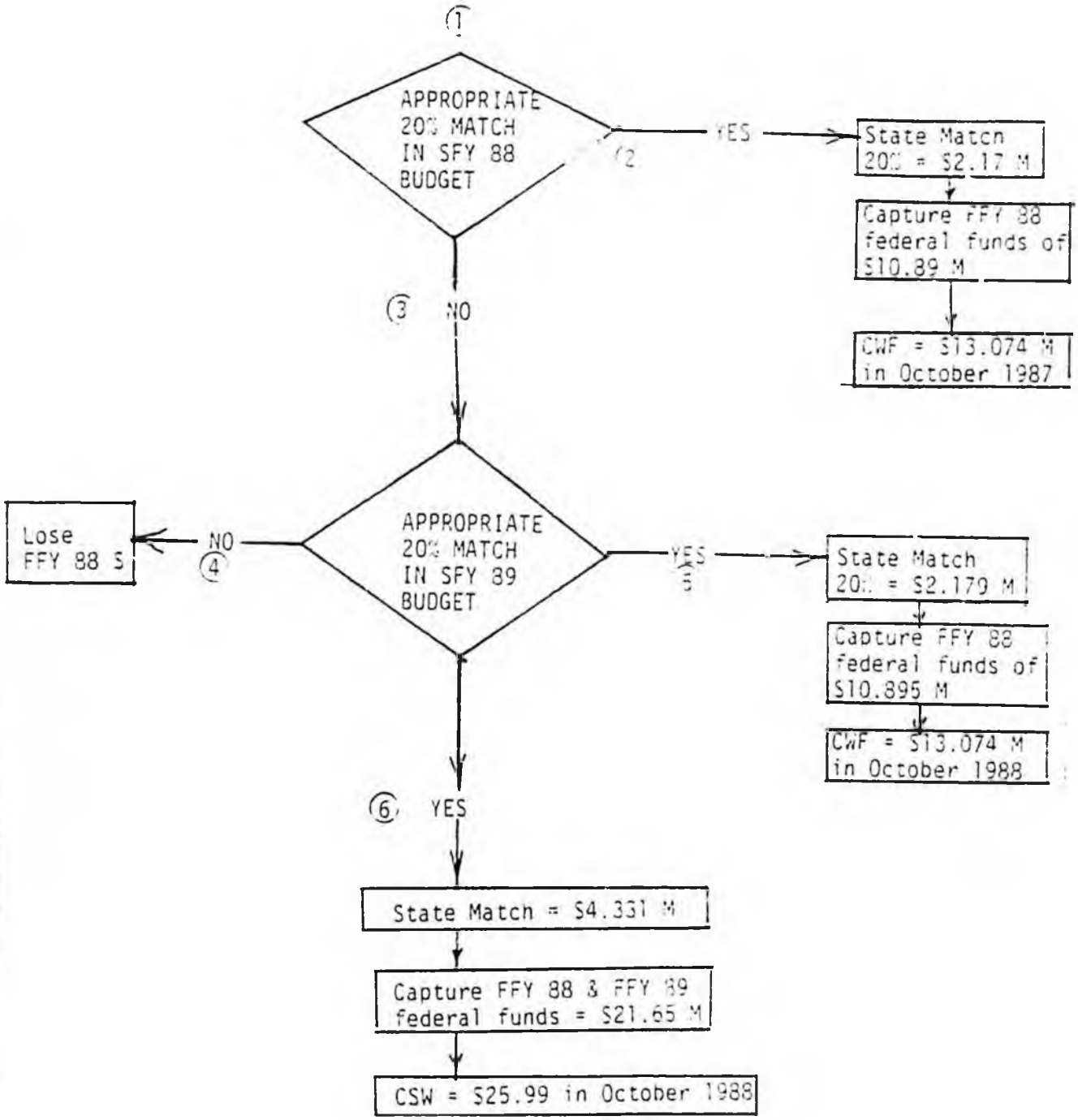




3-17-87 SB 167 /

STATE MATCH DECISION TREE

Note: SFY=State Fiscal Year
FFY=Federal Fiscal Year



SUMMARY
TITLE VI
STATE WATER POLLUTION CONTROL REVOLVING FUNDS

1987 AMENDMENTS TO CLEAN WATER ACT
March 19, 1987

Sec 601 - GENERAL AUTHORITY

a) Administrator (EPA) shall make capitalization grants to each state for a water pollution control revolving fund for

1. Construction of treatment works
2. Management program under Sec 391
3. Management program under Sec 320

b) Establish a schedule of payments based on State's intended use plan.

Sec 602 - CAPITALIZATION GRANT AGREEMENTS

a) State shall enter into agreement with EPA administrator.

b) 1. Establish payment schedule and deposit all payments in the revolving fund.

2. State 20 percent match on or before quarterly payment.

3. State must enter binding commitments to provide assistance within one year of receipt of grants.

4. Funds will be expended in an expeditious and timely manner.

5. Funds will be used to first assure progress toward enforceable deadlines, goals, and requirements of this Act, including municipal compliance deadlines.