

Edl, Michele

From: Rick Sterling [Rick.Sterling@puc.idaho.gov]
Sent: Monday, January 14, 2008 9:07 AM
To: Edl, Michele
Subject: RE: Malad River/Ravenscroft generation data

Any of the reports with data related to energy production or capacity can be cited as "Idaho Power Company Monthly Cogeneration and Small Power Production Report to the Idaho Public Utilities Commission." The pages with narrative related to a description of the generation facilities can be cited as from "Firm Energy Sales Agreement between Idaho Power Company and Vernon F. Ravenscroft." All are public documents on file at the Idaho PUC.

-----Original Message-----

From: Edl, Michele [mailto:Michele.Edl@idwr.idaho.gov]
Sent: Friday, January 11, 2008 11:46 AM
To: Rick Sterling
Subject: RE: Malad River/Ravenscroft generation data

The Adobe file w/o highlight worked for me and I will be using information from that document to license this project.

Which brings up another topic....I need the: who, what, when, why and how of the resources.
 I won't be using the Malad_Quarterly file. The data is too young. But I would like to correctly source the other 3 documents you sent.

At this point I would say
 Documents pulled from the PUC archive by Rick Sterling on 1/10/2008. Would you enhance that description a little more for me, please?
 Thanks again.
 Michele

From: Rick Sterling [mailto:Rick.Sterling@puc.idaho.gov]
Sent: Thursday, January 10, 2008 3:17 PM
To: Edl, Michele
Subject: RE: Malad River/Ravenscroft generation data

I'm using Adobe Reader 8. But if you still can't make it work, here's a version of the same data without the highlighting.

-----Original Message-----

From: Edl, Michele [mailto:Michele.Edl@idwr.idaho.gov]
Sent: Thursday, January 10, 2008 2:40 PM
To: Rick Sterling
Subject: RE: Malad River/Ravenscroft generation data

Rick,
 I'm not getting the line width option in View and they are obscuring the text. What version of Adobe are you using?
 Michele

From: Rick Sterling [mailto:Rick.Sterling@puc.idaho.gov]
Sent: Thursday, January 10, 2008 9:05 AM
To: Edl, Michele
Subject: Malad River/Ravenscroft generation data

Michele --

Here's what I've got on the Malad River/Ravenscroft project.

1/16/2008

The file "Malad equipment description" includes a description of the equipment originally installed at the plant. There are three pumps running in reverse as turbines, with rated hydraulic capacities of 114 cfs, 63 cfs, and 32 cfs. The total electrical generation capacity is 719 kW. I don't know if the plant has been modified since it was first built.

The second file "Malad Monthly Capacity 83-93" lists historical average monthly capacity in kW. The highest capacity shown is 677 kW. As you can see from the data, the plant usually ran at far less than its rated capacity. (If the yellow highlights obscure the text, go to View, Line Weights in Acrobat Reader).

The third file "Malad Monthly Energy 84-99" shows historical generation by month.

The fourth file "Malad_Quarterly_kWh" shows historical generation by quarter through Sept. 2007.

Make sure to remind Jeff and Shelley where you got this information for the next time I need to ask one of them for a favor. :)

Rick Sterling
Idaho Public Utilities Commission
208-334-0351

IDAHO POWER COMPANY
COGENERATION AND SMALL POWER PRODUCTION
MONTHLY GENERATION BY PLANT (AVERAGE KW)

1982	JAN82	FEB82	MAR82	APR82	MAY82	JUN82	JUL82	AUG82	SEP82	OCT82	NOV82	DEC82
31515004 MUD CREEK/S&S	0	49	59	58	57	101	154	167	220	241	226	176
31416001 SHOSHONE	0	0	0	0	0	242	271	221	314	182	180	137
TOTAL	0	49	59	58	57	343	425	387	534	422	406	313
1983	JAN83	FEB83	MAR83	APR83	MAY83	JUN83	JUL83	AUG83	SEP83	OCT83	NOV83	DEC83
31515004 MUD CREEK/S&S	137	120	122	114	116	130	139	190	232	265	234	180
31416001 SHOSHONE	102	14	152	222	270	209	280	225	282	230	250	123
11760002 TAMARACK	0	0	0	0	2200	4038	3851	3824	3888	4151	3528	1561
31415017 NORTHIDE CANAL Y-8	0	0	0	0	42	40	83	80	81	73	59	14
31415023 CURRY CATTLE CO.	0	0	0	0	0	147	215	211	154	68	0	0
11415009 SHINGLE CREEK	0	0	0	0	0	0	62	67	60	53	47	37
31615003 ROCK CREEK #1	0	0	0	0	0	0	0	0	1565	1948	1246	1419
31515009 MALAD RIVER	0	0	0	0	0	0	0	0	0	0	0	26
31516014 CLEAR SPRINGS TROUT	0	0	0	0	0	0	0	0	0	0	413	375
31416013 BOX CANYON	0	0	0	0	0	0	0	0	0	0	0	0
31615030 KOYLE	0	0	0	0	0	0	0	0	0	0	0	0
31615031 KASEL & WITHERSPOON	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	239	134	274	336	2627	4564	4630	4598	6262	6793	5776	3736
1984	JAN84	FEB84	MAR84	APR84	MAY84	JUN84	JUL84	AUG84	SEP84	OCT84	NOV84	DEC84
31515004 MUD CREEK/S&S	101	139	128	88	82	51	0	163	235	245	185	169
31416001 SHOSHONE	0	0	136	282	296	236	235	308	265	213	227	0
11760002 TAMARACK	2400	2613	3541	3891	4250	4508	5051	3181	4754	4670	4217	4576
31415017 NORTHIDE CANAL Y-8	0	0	22	23	46	87	81	82	80	85	42	3
31415023 CURRY CATTLE CO.	0	0	0	22	182	182	225	221	184	182	128	0
11415009 SHINGLE CREEK	36	38	43	60	69	73	77	76	77	102	93	0
31615003 ROCK CREEK #1	1230	1261	1494	1485	1012	1103	1386	1534	1397	825	1008	1126
31515009 MALAD RIVER	60	0	0	0	429	285	482	617	606	578	579	109
31516014 CLEAR SPRINGS TROUT	381	406	132	414	408	410	364	350	414	416	415	419
31416013 BOX CANYON	88	265	192	200	180	167	248	267	257	204	195	232
31615030 KOYLE	161	0	0	444	672	742	588	722	807	772	839	66
31615031 KASEL & WITHERSPOON	0	32	283	318	530	799	552	741	861	581	450	329
44767012 AFTON	0	664	153	1565	1790	2167	501	4103	2588	1188	2472	3677
31214058 BIRCH CREEK	0	0	0	4	9	16	21	22	0	0	40	48
31316010 STEVENSON #1	0	0	0	36	33	31	32	32	34	34	34	36
31415065 BLACK CANYON NO. 3	0	0	0	0	120	69	50	63	93	60	0	0
31616081 CEDAR DRAW	0	0	0	0	43	950	730	832	1211	1059	441	392
31316011 STEVENSON #2	0	0	0	0	0	0	21	31	31	26	23	26
31415094 JIM KNIGHT	0	0	0	0	0	0	0	0	99	71	0	0
31416020 CANYON SPRINGS	0	0	0	0	0	0	0	0	34	86	78	81
31615067 PIGEON COVE	0	0	0	0	0	0	0	0	0	346	842	810
31315021 SNAKE RIVER POTTERY	0	0	0	0	0	0	0	0	0	0	13	45
31316015 LEMOYNE	0	0	0	0	0	0	0	0	0	0	0	0
31414075 SNEDIGAR RANCH	0	0	0	0	0	0	0	0	0	0	0	1
31715099 LOWLINE CANAL	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	4457	5417	6223	8854	10153	11875	10663	13444	14027	11625	12227	12039

"Prudent Electrical Practices" - Those practices, methods and equipment that are commonly and ordinarily used in electrical engineering and operations to operate electric equipment lawfully and with safety, dependability, efficiency and economy.

"Purchase Price" - The amount(s) to be paid to Seller by Idaho for Energy or Energy and Capacity delivered to Idaho.

"Scheduled Maintenance" - The periods of time during which the Facility is shut down for routine maintenance operations with the advance approval of Idaho, as provided in Article VI(H) hereof.

"Unit Avoided Energy Cost" - The sum of the variable costs associated with the specific generating unit or project designated by the Idaho Public Utilities Commission as the basis for the determination of avoided capacity cost. Variable costs include fuel costs and operation and maintenance expenses which vary with the designated unit's or project's generation.

ARTICLE II: TERM

This Agreement shall become effective on the date first above written, and shall continue in full force and effect for a period of thirty-five (35) years from the Operation Date, ending on or about May 1, 2018.

ARTICLE III: SALE OF POWER

(A) Seller agrees to deliver and sell and Idaho agrees to accept and purchase all of the Energy and non-Dispatchable Capacity delivered by Seller at the Point of Delivery.

Seller agrees to provide Energy in an average amount of 3,209,000 kilowatt-hours per year. Seller further agrees to provide non-Dispatchable Capacity in the amount of 488 kilowatts calculated pursuant to Appendix A.

(B) Seller's Facility is described as: Make: Ingersoll Rand and Byron Jackson, Model: (1)I-R 40 VHTA (114 cfs), (1)I-R 30 VHTA (63 cfs), (1)B-J 8520-7 (32 cfs), fuel or energy source: Water, having a nameplate output rating of 719 kw (kva), and 460 volts, three phase, 60 hertz.

(C) Seller's Facility is located on the Malad River, as more particularly described in Appendix "B", and the scheduled Operation Date of the Facility is May 1, 1983.

ARTICLE IV: PURCHASE PRICE AND METHOD OF PAYMENT

(A) Energy. Idaho shall pay Seller monthly for Energy delivered and accepted at the Unit Avoided Energy Cost rate specified in Appendix "A".

(B) Capacity. Seller shall be paid for Capacity made available to Idaho in accordance with Appendix A. The applicable Capacity Price for purposes of computing Capacity payments is \$319 per kilowatt-year, except as may otherwise be adjusted in accordance with this Agreement. The Capacity Price is derived from Table 1, Appendix A. Idaho's obligation to pay Seller for Capacity furnished to Idaho shall commence as of the Operation Date.

Payment for the Capacity provided in each Contract Year will be made in twelve (12) equal monthly amounts.

(C) Following the Initial Period, the Purchase Price and the methods for calculating that Purchase Price specified in (A) and (B) above and Appendix

APPENDIX "B"
SPECIAL FACILITIES AND POINT(S)
OF DELIVERY AND METERING

B-1 Location of Facility

The Facility is located on the Malad River in Gooding County, Idaho in the West half of the S W quarter, Section 29, Township 6 South, Range 14 East.

B-2 Point of Delivery

The Point of Delivery of Energy from the Seller to Idaho will be the 19,900/34,500 Volt bushings of the padmounted transformer located approximately 1/4 mile south of the Facility. The transformer will be a three-phase transformer, 277/480 Volts to 19,900/34,500 Volts connected grounded-Wye -- grounded-Wye, and will be owned and maintained by the Seller.

B-3 Metering

The metering equipment will be on the 480 Volt side of the transformer, and will consist of 3 current transformers, 1 meter, and associated wiring and enclosure. The meter will register kilowatt hours and kilowatts of demand. An adjustment will be made to the meter readings to compensate for energy losses to the transformer. Metering equipment will be owned and maintained by Idaho, with total cost of purchase, installation,

----- WARNING -----

The data you have obtained from this automated U.S. Geological Survey database
 # have not received Director's approval and as such are provisional and subject to
 # revision. The data are released on the condition that neither the USGS nor the
 # United States Government may be held liable for any damages resulting from its use.
 # Additional info: <http://waterdata.usgs.gov/nwis/help/?provisional>
 #
 # File-format description: http://waterdata.usgs.gov/nwis/?tab_delimited_format_info
 # Automated-retrieval info: http://waterdata.usgs.gov/nwis/?automated_retrieval_info
 #
 # Contact: gs-w_support_nwisweb@usgs.gov
 # retrieved: 2008-01-11 12:11:20 EST
 #
 # Data for the following site(s) are contained in this file
 # USGS 13152500 MALAD RIVER NR GOODING ID
 # -----

Data provided for site 13152500
 # DD parameter statistic Description
 # 01 00060 00003 Discharge, cubic feet per second (Mean)
 #
 # Data-value qualification codes included in this output:
 # A Approved for publication -- Processing and review completed.
 #

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USGS	13152500		1984-01-04	820 A
USGS	13152500		1984-01-05	840 A
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USGS	13152500		1984-01-08	520 A
USGS	13152500		1984-01-09	505 A
USGS	13152500		1984-01-10	500 A
USGS	13152500		1984-01-11	505 A
USGS	13152500		1984-01-12	474 A
USGS	13152500		1984-01-13	444 A
USGS	13152500		1984-01-14	427 A
USGS	13152500		1984-01-15	407 A
USGS	13152500		1984-01-16	391 A
USGS	13152500		1984-01-17	376 A
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USGS	13152500		1984-01-19	320 A
USGS	13152500		1984-01-20	300 A
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USGS	13152500		1984-01-22	292 A
USGS	13152500		1984-01-23	301 A
USGS	13152500		1984-01-24	307 A
USGS	13152500		1984-01-25	310 A
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USGS	13152500	1984-02-12	120	A
USGS	13152500	1984-02-13	129	A
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USGS	13152500	1984-02-17	122	A
USGS	13152500	1984-02-18	115	A
USGS	13152500	1984-02-19	113	A
USGS	13152500	1984-02-20	115	A
USGS	13152500	1984-02-21	120	A
USGS	13152500	1984-02-22	127	A
USGS	13152500	1984-02-23	130	A
USGS	13152500	1984-02-24	127	A
USGS	13152500	1984-02-25	126	A
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USGS	13152500	1984-02-29	120	A
USGS	13152500	1984-03-01	105	A
USGS	13152500	1984-03-02	130	A
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USGS	13152500	1984-03-22	568	A
USGS	13152500	1984-03-23	474	A
USGS	13152500	1984-03-24	510	A
USGS	13152500	1984-03-25	482	A
USGS	13152500	1984-03-26	411	A
USGS	13152500	1984-03-27	387	A
USGS	13152500	1984-03-28	361	A
USGS	13152500	1984-03-29	340	A
USGS	13152500	1984-03-30	332	A
USGS	13152500	1984-03-31	350	A
USGS	13152500	1984-04-01	361	A
USGS	13152500	1984-04-02	389	A
USGS	13152500	1984-04-03	367	A
USGS	13152500	1984-04-04	357	A
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USGS	13152500	1984-04-06	455	A
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USGS	13152500	1984-08-19	272	A
USGS	13152500	1984-08-20	254	A
USGS	13152500	1984-08-21	231	A
USGS	13152500	1984-08-22	252	A
USGS	13152500	1984-08-23	272	A
USGS	13152500	1984-08-24	284	A
USGS	13152500	1984-08-25	308	A
USGS	13152500	1984-08-26	303	A
USGS	13152500	1984-08-27	308	A
USGS	13152500	1984-08-28	285	A
USGS	13152500	1984-08-29	261	A
USGS	13152500	1984-08-30	252	A
USGS	13152500	1984-08-31	284	A
USGS	13152500	1984-09-01	348	A
USGS	13152500	1984-09-02	380	A
USGS	13152500	1984-09-03	365	A
USGS	13152500	1984-09-04	342	A
USGS	13152500	1984-09-05	324	A
USGS	13152500	1984-09-06	318	A
USGS	13152500	1984-09-07	285	A
USGS	13152500	1984-09-08	297	A
USGS	13152500	1984-09-09	378	A
USGS	13152500	1984-09-10	398	A
USGS	13152500	1984-09-11	387	A
USGS	13152500	1984-09-12	393	A
USGS	13152500	1984-09-13	346	A
USGS	13152500	1984-09-14	348	A
USGS	13152500	1984-09-15	378	A
USGS	13152500	1984-09-16	434	A
USGS	13152500	1984-09-17	446	A
USGS	13152500	1984-09-18	462	A
USGS	13152500	1984-09-19	465	A
USGS	13152500	1984-09-20	402	A
USGS	13152500	1984-09-21	398	A
USGS	13152500	1984-09-22	427	A
USGS	13152500	1984-09-23	531	A
USGS	13152500	1984-09-24	606	A
USGS	13152500	1984-09-25	698	A
USGS	13152500	1984-09-26	771	A
USGS	13152500	1984-09-27	698	A
USGS	13152500	1984-09-28	708	A
USGS	13152500	1984-09-29	691	A
USGS	13152500	1984-09-30	708	A
USGS	13152500	1984-10-01	725	A
USGS	13152500	1984-10-02	778	A
USGS	13152500	1984-10-03	779	A
USGS	13152500	1984-10-04	724	A
USGS	13152500	1984-10-05	659	A
USGS	13152500	1984-10-06	635	A
USGS	13152500	1984-10-07	578	A
USGS	13152500	1984-10-08	486	A
USGS	13152500	1984-10-09	450	A
USGS	13152500	1984-10-10	481	A
USGS	13152500	1984-10-11	436	A
USGS	13152500	1984-10-12	334	A
USGS	13152500	1984-10-13	231	A
USGS	13152500	1984-10-14	269	A
USGS	13152500	1984-10-15	295	A
USGS	13152500	1984-10-16	190	A
USGS	13152500	1984-10-17	230	A
USGS	13152500	1984-10-18	207	A
USGS	13152500	1984-10-19	208	A
USGS	13152500	1984-10-20	217	A

USGS	13152500	1984-1-1	220	A
USGS	13152500	1984-10-22	218	A
USGS	13152500	1984-10-23	227	A
USGS	13152500	1984-10-24	240	A
USGS	13152500	1984-10-25	238	A
USGS	13152500	1984-10-26	278	A
USGS	13152500	1984-10-27	318	A
USGS	13152500	1984-10-28	311	A
USGS	13152500	1984-10-29	311	A
USGS	13152500	1984-10-30	325	A
USGS	13152500	1984-10-31	306	A
USGS	13152500	1984-11-01	305	A
USGS	13152500	1984-11-02	349	A
USGS	13152500	1984-11-03	361	A
USGS	13152500	1984-11-04	357	A
USGS	13152500	1984-11-05	364	A
USGS	13152500	1984-11-06	375	A
USGS	13152500	1984-11-07	374	A
USGS	13152500	1984-11-08	385	A
USGS	13152500	1984-11-09	403	A
USGS	13152500	1984-11-10	420	A
USGS	13152500	1984-11-11	449	A
USGS	13152500	1984-11-12	450	A
USGS	13152500	1984-11-13	435	A
USGS	13152500	1984-11-14	408	A
USGS	13152500	1984-11-15	476	A
USGS	13152500	1984-11-16	473	A
USGS	13152500	1984-11-17	368	A
USGS	13152500	1984-11-18	267	A
USGS	13152500	1984-11-19	230	A
USGS	13152500	1984-11-20	226	A
USGS	13152500	1984-11-21	208	A
USGS	13152500	1984-11-22	215	A
USGS	13152500	1984-11-23	215	A
USGS	13152500	1984-11-24	220	A
USGS	13152500	1984-11-25	230	A
USGS	13152500	1984-11-26	213	A
USGS	13152500	1984-11-27	199	A
USGS	13152500	1984-11-28	235	A
USGS	13152500	1984-11-29	219	A
USGS	13152500	1984-11-30	201	A
USGS	13152500	1984-12-01	172	A
USGS	13152500	1984-12-02	131	A
USGS	13152500	1984-12-03	128	A
USGS	13152500	1984-12-04	125	A
USGS	13152500	1984-12-05	120	A
USGS	13152500	1984-12-06	115	A
USGS	13152500	1984-12-07	110	A
USGS	13152500	1984-12-08	105	A
USGS	13152500	1984-12-09	100	A
USGS	13152500	1984-12-10	95	A
USGS	13152500	1984-12-11	95	A
USGS	13152500	1984-12-12	95	A
USGS	13152500	1984-12-13	95	A
USGS	13152500	1984-12-14	92	A
USGS	13152500	1984-12-15	92	A
USGS	13152500	1984-12-16	92	A
USGS	13152500	1984-12-17	92	A
USGS	13152500	1984-12-18	90	A
USGS	13152500	1984-12-19	90	A
USGS	13152500	1984-12-20	90	A
USGS	13152500	1984-12-21	90	A
USGS	13152500	1984-12-22	92	A
USGS	13152500	1984-12-23	95	A

USGS	13152500	1984-12-24	95	A
USGS	13152500	1984-12-25	100	A
USGS	13152500	1984-12-26	100	A
USGS	13152500	1984-12-27	100	A
USGS	13152500	1984-12-28	98	A
USGS	13152500	1984-12-29	98	A
USGS	13152500	1984-12-30	98	A
USGS	13152500	1984-12-31	98	A
USGS	13152500	1985-01-01	92	A