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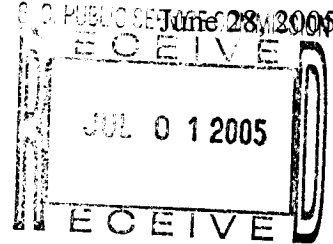
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THE HONORABLE CHARLES TERRENI
Chief Clerk and Administrator
South Carolina Public Service Commission
101 Executive Center Drive
Suite 100
Columbia, South Carolina 29210



2005-226-E

Docket No. 93-430-E
Order No. 94-348

Dear Mr. Terreni:

Pursuant to Docket No. 93-430-E, Order No. 94-348 dated April 21, 1994 please find enclosed for filing Lockhart Power Company's **INTERGRATED RESOURCE PLAN** dated June, 2005.

Very truly yours,

James H. Seay, Jr.
Process Improvement Manager

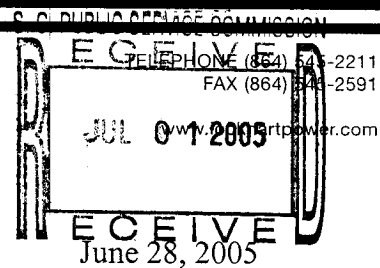
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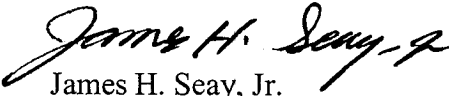
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James H. Seay, Jr.
Process Improvement Manager

LOCKHART POWER COMPANY

INTEGRATED RESOURCE PLAN

1. STATEMENT OF OBJECTIVE

Lockhart Power Company's (LPC) objective in developing an Integrated Resource Plan (IRP) is to minimize our long run total costs and produce the least cost to our customers consistent with the availability of an adequate and reliable supply of electric energy while maintaining system flexibility and considering environmental impacts. We intend for the plan to also improve customer service, offer additional customer options, and improve efficiencies of energy usage.

2. RELEVANT SUPPORTING DOCUMENTATION

a. See ATTACHMENTS

1 --- DEMAND FORECAST

2 --- SUPPLY AND SALES FORECAST

3 --- LONG RANGE CAPITAL BUDGET

4 --- LOCKHART POWER COMPANY ENERGY SOURCES

b. See EXHIBITS

LSA-1 --- CASH FLOW BREAKEVEN TEST
WORKSHEET

1
2 **3. SUPPLY RESOURCES**
3

4 LPC presently utilizes three sources of supply --- its own hydroelectric facility,
5 purchases from a small PURPA qualifying facility, and purchases from Duke Power
6 Company. LPC purchases approximately 80% of its total system input in MWH's.
7 SEE ATTACHMENT 4. For the foreseeable future LPC intends to continue using
8 these three sources to meet its load requirements. LPC uses its run-of-river hydro plant
9 as a peaking unit through out the year. LPC's purchases from the PURPA facility at a
10 price defined as the lowest energy charge per KWH, i.e. no demand charge, that Duke
11 Power Company (DPC) charges LPC on DPC's Schedule RESALE. LPC purchases
12 power from DPC under their Schedule RESALE which is approved by the Federal
13 Energy Regulatory Commission (FERC). We conclude that DPC's rates to LPC are
14 presumptively just and reasonable, having been permitted by the FERC. We plan to
15 continue to use the above described three supply sources for the foreseeable future.
16 However, LPC intends to investigate other sources to determine if the costs and
17 benefits, both short run and long run, meet the objectives of our IRP. The sources we
18 intend to investigate include, but are not limited to the following:

19
20 **GENERATION** --- Diesel Fueled Peaking for peak shaving.

21 Additional Hydro for peak shaving.

22 **PURCHASES** --- Spot, Short Term, Long Term from present
23 supplier to reduce supply cost. Spot, Short Term, Long Term
24 from Independent Power Producers or Exempt Wholesale
25 Generators to reduce supply cost.
26
27
28

1 **4. VARIOUS ENERGY ALTERNATIVES, EFFICIENT ENERGY CHOICES AND**
2 **PROPER PRICING SIGNALS**

3 LPC has and continues to do the following:

4 A. Designed its rates to economically encourage improved load factors and
5 reduce monthly demands by:

6 1. Incorporates a demand penalty by use of a demand ratchet
7 in its resale rates. This encourages peak shaving.

8 2. Divides its commercial and industrial rates into a first 200
9 hours use of billing demand rate and an over 200 hours use of
10 billing demand rate with the rates in the latter considerably less
11 expensive than the first 200 hours use block. This encourages
12 peak shaving.

13 3. Incorporated stringent conservation requirements in its
14 Residential - All Electric and General Service - All Electric rates.
15 This encourages conservation.

16 4. Designed its Residential and Residential - All Electric
17 rates such that they are identical during the summer months, the
18 season of LPC's system peak. This encourages peak shaving and
19 conservation.

20 5. Designed its General Service commercial and General
21 Service - All Electric rates such that they are identical during the
22 summer months, the season of LPC's system peak. This
23 encourages peak shaving and conservation.

24 6. Converted its Residential rate and Residential - All
25 -Electric rate (summer months) from a declining block rate to an
26 inverted rate. This encourages conservation.

1 **5. EVALUATING POTENTIAL OPTIONS**

2
3 LPC will employ unbiased analysis techniques for potential options included in its IRP.
4 LPC will evaluate each option by including all appropriate costs and and benefits and
5 will provide a detailed explanation with supporting evidence for our choice.
6

7 **6. EVALUATING THE COST EFFECTIVENESS OF SUPPLY-SIDE AND**
8 **DEMAND SIDE OPTIONS**

9
10 LPC will evaluate the cost effectiveness of each supply-side and demand-side option by
11 considering relevant costs and benefits. LPC will evaluate each option by the cash flow
12 breakeven method. SEE EXHIBIT LSA-1. Worksheets will be used to show the detail
13 for Columns 2, 3, 4, and 5. Savings and Environmental costs will be included as
14 Added Net Sales or an Expense depending on the value developed for that particular
15 item. If Column 13 shows that the project takes longer than three years to break even,
16 the project will probably not be implemented. If Column 13 shows that the project
17 takes less than three years to break even, the project may be implemented.
18
19

20 **7. MEASURE OF NET BENEFITS**

21 LPC will provide the net benefits resulting from the options chosen for use, keeping
22 within the objective stated in 1. Benefits will be quantified on the Worksheets
23 described in 6. above. Benefits are considered to be, but are not limited to, cost
24 savings, peak load shaving, conservation, load shifting, valley filling, environmental
25 concerns, improvement of customer service, offering of additional customer options,
26 improved efficiencies of energy usage, and improved outage times and reliability.
27
28

1 **8. ENVIRONMENTAL COSTS**

2
3 LPC will consider environmental costs on a monetized basis where reasonable and
4 sufficient data is available in its planning process and evaluation of options. Those
5 environmental costs that cannot be monetized will be addressed on a qualitative basis
6 within the planning process and evaluation of options. Environmental costs can be
7 increased or reduced. The environmental costs referred to here are those costs
8 associated with demand or supply side options which impact the customer directly or
9 indirectly.

10
11 **9. DEMAND AND ENERGY FORECAST**

12
13 SEE ATTACHMENTS 1 AND 2

14
15 **10. EVALUATION AND REVIEW OF EXISTING DEMAND-SIDE OPTIONS**

16
17 SEE 4. ABOVE

18
19 **11. FUTURE STUDIES**

20
21 LPC presently has no significant studies in process. We annually evaluate the
22 effectiveness of: (1) time-of use rates for load shifting, valley filling, and peak shaving
23 (2) economic development rates for cost reduction, and (3) interruptible rates for peak
24 shaving during.

25
26 **12. FLEXIBILITY AND QUICK RESPONSE**

27 LPC intends to remain flexible enough to react quickly to changes in a manner
28 consistent with minimizing costs while maintaining reliability.

1 **13. MAINTENANCE**

2
3 Maintenance is a continuous process at LPC. Actual maintenance costs for 2003 and
4 2004 are shown below as well as the forecast of maintenance costs for 2005 through
5 2019.

6

<u>YEAR</u>	<u>MAINTENANCE COST</u>	<u>YEAR</u>	<u>MAINTENANCE COST</u>
7 2003	\$943,686	2012	\$906,130
8 2004	836,794	2013	915,191
9 2005	845,162	2014	924,343
10 2006	853,614	2015	933,586
11 2007	862,150	2016	942,922
12 2008	870,772	2017	952,351
13 2009	879,480	2018	961,875
14 2010	888,275	2019	971,494
15 2011	897,158		

16

17 **14. THIRD PARTY POWER PURCHASES**

18 LPC will investigate other purchase sources if the occasion arises and is willing to
19 pursue any other purchase sources to determine if the costs and benefits, both short run
20 and long run, provide our customers with the options consistent with our IRP objective.
21 LPC has engaged in preliminary discussions with a major utility operating in South
22 Carolina that is not presently our supplier.

23
24

25 **15. NEW TECHNOLOGIES**

26
27 LPC will continuously evaluate, pursuant to its IRP objective, new technology for both
28 demand-side and supply-side options.

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16. FUTURE SUPPLY-SIDE OPTIONS

LPC presently has no certain scheduled supply side options other than those described in 3.

17. CAPTURING LOST OPPORTUNITY RESOURCES

LPC gives attention to capturing lost-opportunity resources which include cost-effective energy efficiency savings such as in new construction, renovation, and in routine replacement of existing equipment. In routine replacement of any and all equipment, LPC includes energy and efficiency savings as a component of evaluation. A forecast of replacements is shown on ATTACHMENT 3.

18. DYNAMICS OF IRP PROCESS

LPC realizes that the IRP process is dynamic and that modifications may be necessary over time. As new issues arise, existing issues or components of the plan change in significance and improved analysis techniques developed; LPC intends to file revisions to its IRP with The Public Service Commission of South Carolina and request that the Commission incorporate the revision into LPC's IRP or approve it as a separate consideration.

SUMMER
DEMAND FORECAST

MW'S

DESCRIPTION	2005	2006	2007	2008	2009
-----	-----	-----	-----	-----	-----
SYSTEM SUMMER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	69.9	70.6	71.3	72	72.7

DESCRIPTION	2005	2006	2007	2008	2009
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	51.9	52.6	53.3	54.0	54.7
8 TOTAL DEMAND SOURCES	69.9	70.6	71.3	72	72.7

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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SUMMER
DEMAND FORECAST

MW'S

DESCRIPTION	2010	2011	2012	2013	2014
-----	-----	-----	-----	-----	-----
SYSTEM SUMMER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	73.4	74.1	74.8	75.5	76.2

DESCRIPTION	2010	2011	2012	2013	2014
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	55.4	56.1	56.8	57.5	58.2
8 TOTAL DEMAND SOURCES	73.4	74.1	74.8	75.5	76.2

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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SUMMER
DEMAND FORECAST

MW'S

DESCRIPTION	2015	2016	2017	2018	2019
-----	-----	-----	-----	-----	-----
SYSTEM SUMMER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	76.9	77.6	78.3	79.1	79.9

DESCRIPTION	2015	2016	2017	2018	2019
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	58.9	59.6	60.3	61.1	61.9
8 TOTAL DEMAND SOURCES	76.9	77.6	78.3	79.1	79.9

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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WINTER
DEMAND FORECAST

MW'S

DESCRIPTION	2005	2006	2007	2008	2009
-----	-----	-----	-----	-----	-----
SYSTEM WINTER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	66.2	66.9	67.6	68.3	69

DESCRIPTION	2005	2006	2007	2008	2009
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	48.2	48.9	49.6	50.3	51.0
8 TOTAL DEMAND SOURCES	66.2	66.9	67.6	68.3	69

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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WINTER
DEMAND FORECAST

MW'S

DESCRIPTION	2010	2011	2012	2013	2014
-----	-----	-----	-----	-----	-----
SYSTEM WINTER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	69.7	70.4	71.1	71.8	72.5

DESCRIPTION	2010	2011	2012	2013	2014
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	51.7	52.4	53.1	53.8	54.5
8 TOTAL DEMAND SOURCES	69.7	70.4	71.1	71.8	72.5

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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WINTER
DEMAND FORECAST

MW'S

DESCRIPTION	2015	2016	2017	2018	2019
-----	-----	-----	-----	-----	-----
SYSTEM WINTER PEAK DEMAND IN MW'S					
1 SYSTEM PEAK DEMAND	73.2	73.9	74.6	75.3	76.1

DESCRIPTION	2015	2016	2017	2018	2019
-----	-----	-----	-----	-----	-----
DEMAND SOURCES					
2 COMPANY OWNED HYDRO GENERATION	18.0	18.0	18.0	18.0	18.0
6 PURCHASED FROM PURPA QUALIFYING FACILITY	SEE NOTE 1				
7 PURCHASES FROM DUKE POWER COMPANY	55.2	55.9	56.6	57.3	58.1
8 TOTAL DEMAND SOURCES	73.2	73.9	74.6	75.3	76.1

NOTE 1: The PURPA qualifying facility is an unmanned station and instantaneous reading are not available. Since the Summer peak occurs during low river flow, this facility contributes little if any to the peak.

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SUPPLY AND SALES FORECAST

MWH'S

DESCRIPTION	2005	2006	2007	2008	2009
-----	----	----	----	----	----
SYSTEM REQUIREMENTS					
1 METERED SALES	350127	353628	357164	360736	364343
2 COMPANY USE	466	471	476	481	486
3 LOSSES	18598	18784	18972	19162	19354
4 REQUIRED SYSTEM INPUT	369191	372883	376612	380379	384183

DESCRIPTION	2005	2006	2007	2008	2009
-----	----	----	----	----	----
SUPPLY SOURCES					
5 COMPANY OWNED HYDRO GENERATION	59501	59501	59501	59501	59501
6 PURCHASES FROM PURPA QUALIFYING FACILITY	2746	2746	2746	2746	2746
7 PURCHASES FROM DUKE POWER COMPANY	306944	310636	314365	318132	321936
8 TOTAL SUPPLY	369191	372883	376612	380379	384183

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SUPPLY AND SALES FORECAST

MWH'S

DESCRIPTION	2010	2011	2012	2013	2014
-----	----	----	----	----	----
SYSTEM REQUIREMENTS					
1 METERED SALES	367986	371666	375383	379137	382928
2 COMPANY USE	491	496	501	506	511
3 LOSSES	19548	19743	19940	20139	20340
4 REQUIRED SYSTEM INPUT	388025	391905	395824	399782	403779

DESCRIPTION	2010	2011	2012	2013	2014
-----	----	----	----	----	----
SUPPLY SOURCES					
5 COMPANY OWNED HYDRO GENERATION	59501	59501	59501	59501	59501
6 PURCHASES FROM PURPA QUALIFYING FACILITY	2746	2746	2746	2746	2746
7 PURCHASES FROM DUKE POWER COMPANY	325778	329658	333577	337535	341532
8 TOTAL SUPPLY	388025	391905	395824	399782	403779

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SUPPLY AND SALES FORECAST

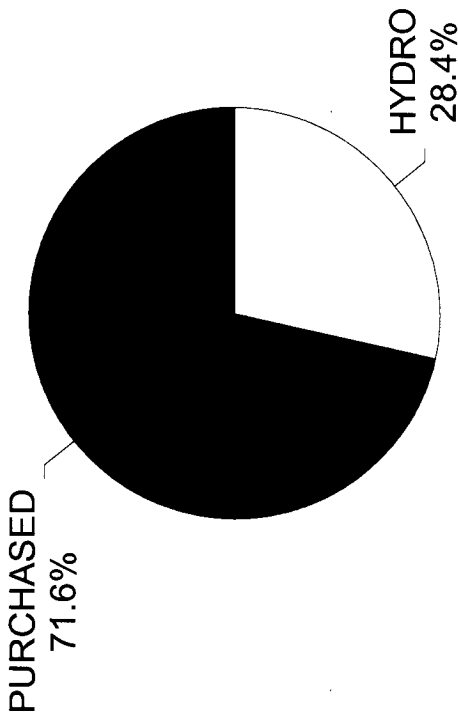
MWH'S

DESCRIPTION	2015	2016	2017	2018	2019
-----	----	----	----	----	----
SYSTEM REQUIREMENTS					
1 METERED SALES	386757	390625	394531	398476	402460
2 COMPANY USE	516	521	526	531	536
3 LOSSES	20543	20748	20955	21164	21376
4 REQUIRED SYSTEM INPUT	407816	411894	416012	420171	424372

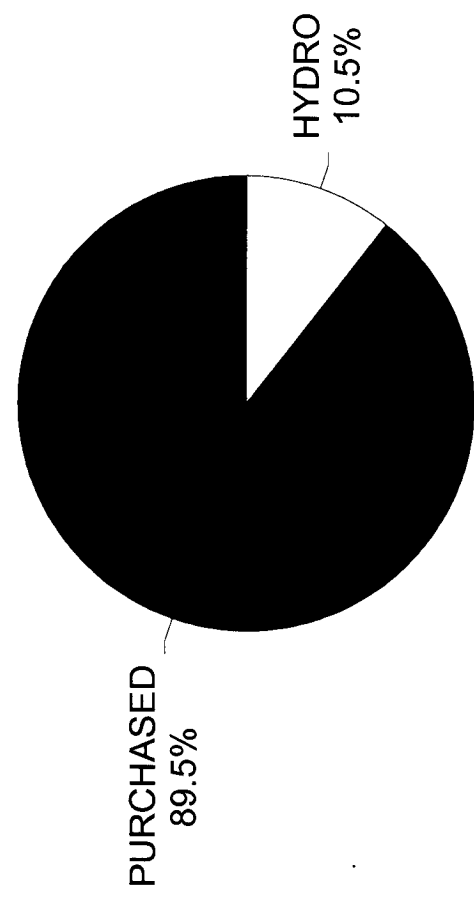
DESCRIPTION	2015	2016	2017	2018	2019
-----	----	----	----	----	----
SUPPLY SOURCES					
5 COMPANY OWNED HYDRO	59501	59501	59501	59501	59501
GENERATION					
6 PURCHASES FROM PURPA	2746	2746	2746	2746	2746
QUALIFYING FACILITY					
7 PURCHASES FROM DUKE	345569	349647	353765	357924	362125
POWER COMPANY					
8 TOTAL SUPPLY	407816	411894	416012	420171	424372

LOCKHART POWER COMPANY

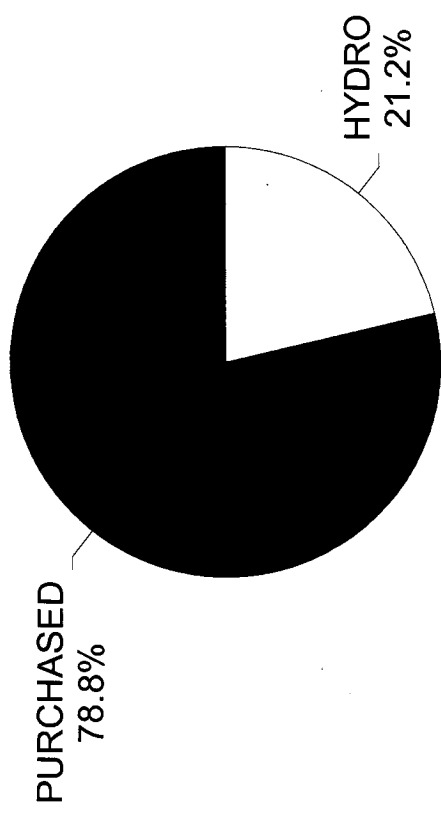
ENERGY SOURCES IN PERCENT OF MWH'S INPUT



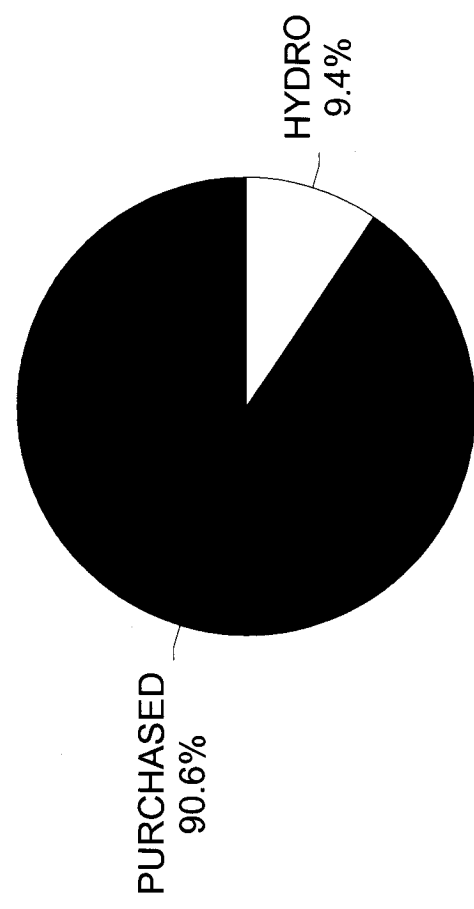
2003



2001



2004



2002

Note: Purchased Power obtained from Duke Power Company and Pacolet Hydro

