

POST OFFICE BOX 10 . LOCKHART, SOUTH CAROLINA 29364

TELEPHONE (803) 545-2211 FAX (803) 545-2591

INTEGRATED RESOURCE PLAN



THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 93-430-E ORDER NO. 94-348 04-21-94

JULY, 1996

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June 28, 1996

THE HONORABLE CHARLES W. BALLENTINE Executive Director South Carolina Public Service Commission Post Office Drawer 11649 Columbia, South Carolina 29211

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

Dear Mr. Ballentine:

Pursuant to <u>Docket No. 93-430-E</u>, <u>Order No. 94-348</u> dated April 21, 1994 please find enclosed for filing Lockhart Power Company's **INTEGRATED RESOURCE PLAN** dated July, 1996.

Very truly yours,

Leslie S. Anderson General Manager

Enclosure

wp:irp

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INTEGRATED RESOURCE PLAN



THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 93-430-E ORDER NO. 94-348 04-21-94

JULY, 1996

INTEGRATED RESOURCE PLAN

1. STATEMENT OF OBJECTIVE

| | | • |
|----|----|---|
| 2 | | Lockhart Power Company's (LPC) objective in developing an Integrated Resource Plan |
| 3 | | (IRP) is to minimize our long run total costs and produce the least cost to our |
| 4 | | customers consistent with the availability of an adequate and reliable supply of electric |
| 5 | | energy while maintaining system flexibility and considering environmental impacts. |
| 6 | | We intend for the plan to also improve customer service, offer additional customer |
| 7 | | options, and improve efficiencies of energy usage. |
| 8 | 2. | RELEVANT SUPPORTING DOCUMENTATION |
| 9 | | a. See ATTACHMENTS |
| 10 | | 1 DEMAND FORECAST |
| 11 | | 2 SUPPLY AND SALES FORECAST |
| 12 | | 3 LONG RANGE CAPITAL BUDGET |
| 13 | | 4 LOCKHART POWER COMPANY ENERGY SOURCES |
| 14 | | 5 FORECAST OF PURCHASED POWER SAVINGS IN 1996 DUE TO |
| 15 | | REPLACEMENT POWER TRANSFORMERS AND AUTOMATIC |
| 16 | | INTAKE RACKS CLEANING SYSTEM. |

FORECAST OF REDUCTION OF ANNUAL PURCHASED LSA-I ---2 POWER COST DUE TO INCREASED EFFICIENCY AND 3 OUTPUT OF REHABILITATED HYDROELECTRIC UNITS 4 LSA-2 ----CASH FLOW BREAKEVEN TEST WORKSHEET 5 ANNUAL HYDROELECTRIC GENERATION LSA-3 ----6 LSA-4 ---SELECTED RAINFALL DATA

3. **SUPPLY RESOURCES**

See EXHIBITS

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LPC presently utilizes three sources of supply --- its own hydroelectric facility, purchases from a small PURPA qualifying facility, and purchases from Duke Power Company. LPC purchases approximately 75% of its total system input in MWH's. SEE ATTACHMENT 4. For the foreseeable future LPC intends to continue using these three sources to meet its load requirements. LPC uses its run-of-river hydro plant as a peaking unit in the Summer months and as a base load plant in the other months to the extent possible. LPC's purchases from the PURPA facility at a price defined as the lowest energy charge per KWH, i.e. no demand charge, that Duke Power Company (DPC) charges LPC on DPC's Schedule RESALE. LPC purchases power from DPC under their Schedule RESALE which is approved by the Federal Energy Regulatory Commission (FERC). We conclude that DPC's rates to LPC are presumptively just and reasonable, having been permitted by the FERC. We plan to continue to use the above described three supply sources for the foreseeable future.

| 1 | | However, LPC intends to investigate other sources to determine if the costs and | | | | | |
|----|----|---|--|--|--|--|--|
| 2 | | benefits, both short run and long run, meet the objectives of our IRP. The sources we | | | | | |
| 3 | | intend to investigate | include, but are not limited to the following: | | | | |
| | | | | | | | |
| 4 | | GENERATION | Diesel Fueled Peaking for peak shaving. Additional Hydro for | | | | |
| 5 | | | peak shaving. | | | | |
| 6 | | PURCHASES | Spot, Short Term, Long Term from present supplier to reduce | | | | |
| 7 | | | supply cost. Spot, Short Term, Long Term from Independent | | | | |
| 8 | | | Power Producers or Exempt Wholesale Generators to reduce | | | | |
| 9 | | • | supply cost. | | | | |
| | | | | | | | |
| 10 | 4. | VARIOUS ENERG | GY ALTERNATIVES, EFFICIENT ENERGY CHOICES AND | | | | |
| 1 | | PROPER PRICIN | G SIGNALS | | | | |
| 12 | | LPC has and contin | ues to do the following: | | | | |
| 13 | | A. Designed its | rates to economically encourage improved load factors and reduce | | | | |
| 14 | | monthly den | nands by: | | | | |
| 15 | | 1. Incom | porates a demand penalty by use of a demand ratchet in its | | | | |
| 16 | | comi | mercial, industrial, and resale rates. This encourages peak shaving. | | | | |
| 17 | | 2. Divi | des its commercial and industrial rates into a first 200 hours use of | | | | |
| 18 | | billir | ng demand rate and an over 200 hours use of billing demand rate | | | | |
| 19 | | with | the rates in the latter considerably less expensive than the first 200 | | | | |
| 20 | | hour | s use block. This encourages peak shaving. | | | | |
| 21 | | 3. Inco | rporated stringent conservation requirements in its Residential - All | | | | |

| 7 | | | Electric and General Service - All Electric rates. This encourages |
|-----|----|--------------|---|
| 2 | | | conservation. |
| 3 | | 4. | Designed its Residential and Residential - All Electric rates such that |
| 4 | | | they are identical during the summer months, the season of LPC's |
| 5 | | | system peak. This encourages peak shaving and conservation. |
| 6 | | 5. | Designed its General Service commercial and General Service - All |
| 7 | | | Electric rates such that they are identical during the summer months, the |
| 8 | | | season of LPC's system peak. This encourages peak shaving and |
| 9 | | | conservation. |
| 10 | | 6. | Converted its Residential rate and Residential - All -Electric rate |
| 11 | | | (summer months) from a declining block rate to an inverted rate. This |
| 12 | | | encourages conservation. |
| 3 | | B. Provi | des our residential customers with energy conservation information |
| 14 | | throu | gh weekday radio messages to encourage conservation and educate |
| 15 | | custo | mers on how to conserve. |
| | | | |
| 16 | 5. | EVALUATI | NG POTENTIAL OPTIONS |
| | | | |
| 17 | | LPC will em | ploy unbiased analysis techniques for potential options included in its IRP |
| 1.8 | | LPC will eva | aluate each option by including all appropriate costs and and benefits and |
| 19 | | will provide | a detailed explanation with supporting evidence for our choice. |
| | | | |

EVALUATING THE COST EFFECTIVENESS OF SUPPLY-SIDE AND

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DEMAND SIDE OPTIONS

1. 0

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

7. MEASURE OF NET BENEFITS

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

8. ENVIRONMENTAL COSTS

LPC will consider environmental costs on a monetized basis where reasonable and

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

9. DEMAND AND ENERGY FORECAST

SEE ATTACHMENTS 1 AND 2

10. EVALUATION AND REVIEW OF EXISTING DEMAND-SIDE OPTIONS

SEE 4. ABOVE

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11. FUTURE STUDIES

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

12. FLEXIBILITY AND QUICK RESPONSE

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

13. MAINTENANCE AND REFURBISHMENT

LPC refurbished its hydroelectric equipment from November, 1988, through November, 1991, at a cost of approximately \$4,000,000. In 1993 we estimated the refurbished equipment would reduce our purchased power cost by approximately \$346,000. In actuality that reduced cost is \$683,365 almost 50% more than expected. SEE EXHIBIT LSA-1. An average annual hydroelectric generation of 91.77 gigawatthours (GWH) were realized over the projected 88 GWH in 1993. SEE EXHIBIT LSA-3. Rainfall was down during the same time period which shows a greater potential to reduce purchased power cost. SEE EXHIBIT LSA-4.

Maintenance is a continuous process at LPC. Actual maintenance costs for 1993 through 1995 are shown below as well as the forecast of maintenance costs for 1996 through 2010.

| 15 | <u>YEAR</u> | MAINTENANCE COST | YEAR | MAINTENANCE COST |
|----|-------------|------------------|------|------------------|
| 16 | 1993 | \$661,734 | 2002 | \$1,051,555 |
| 17 | 1994 | 744,133 | 2003 | 1,093,618 |
| 18 | 1995 | 799,096 | 2004 | 1,137,362 |
| 19 | 1996 | 831,059 | 2005 | 1,182,857 |
| 20 | 1997 | 864,302 | 2006 | 1,230,171 |

| 1 | 1998 | 898,874 | 2007 | 1,279,378 |
|---|------|-----------|------|-----------|
| 2 | 1999 | 934,829 | 2008 | 1,330,553 |
| 3 | 2000 | 972,222 | 2009 | 1,383,775 |
| 4 | 2001 | 1,011,111 | 2010 | 1,439,126 |

14. THIRD PARTY POWER PURCHASES

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LPC will investigate other purchase sources if the occasion arises and is willing to pursue any other purchase sources to determine if the costs and benefits, both short run and long run, provide our customers with the options consistent with our IRP objective. LPC has recently contacted the Piedmont Municipal Power Agency through one of its member cities to pursue possible purchases from this agency.

15. **NEW TECHNOLOGIES**

LPC will continuously evaluate, pursuant to its IRP objective, new technology for both 12 demand-side and supply-side options.

16. **FUTURE SUPPLY-SIDE OPTIONS**

LPC presently has no certain scheduled supply side options other than those described 15 in 3. 16

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.

Forecast of purchased power savings in 1996 due to replacement power transformers and automatic intake racks cleaning system is shown on ATTACHMENT 5. An annualized savings of \$260,728 has been projected with the purchases of more energy efficient equipment.

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.

DOCKET NO. 93-430-E ORDER NO. 94-348

SUMMER DEMAND FORECAST

MW'S

| ••• | • | ************* | | | | | |
|-----|--|---------------|------|------|-------------|-------|--|
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | EM SUMMER PEAK AND IN MW'S | | | | | | |
| 1 | SYSTEM PEAK DEMAND | 72 | 72.7 | 73.4 | 74.1 | 74.9 | |
| | | *** | **** | **** | **** | ***** | |
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| DEM | AND SOURCES | | | | | | |
| 2 | COMPANY OWNED HYDRO GENERATION | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 | |
| 6 | PURCHASED FROM PURPA QUALIFYING FACILITY | SEE NOTE 1 | | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPA | 63 NY | 63.7 | 64.4 | 65.1 | 65.9 | |
| 8 | TOTAL DEMAND SOURCES | 72 | 72.7 | 73.4 | 74.1 | 74.9 | |

NOTE 1:

SUMMER DEMAND FORECAST

MW'S

| 743 | | ***** | ***** | **** | **** | ***** |
|-----|--|------------|-------|------|------------------------------|-------|
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 |
| | EM SUMMER PEAK AND IN MW'S | • | | | Olivege amounterelebrit IIII | ~~~~~ |
| 1 | SYSTEM PEAK DEMAND | 75.6 | 76.4 | 77.1 | 77.9 | 78.7 |
| | | **** | ***** | **** | **** | ***** |
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 |
| DEM | AND SOURCES | | | | | |
| 2 | COMPANY OWNED HYDRO GENERATION | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| 6 | PURCHASED FROM PURPA QUALIFYING FACILITY | SEE NOTE 1 | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPAI | 66.6 VY | 67.4 | 68.1 | 68.9 | 69.7 |
| 8 | TOTAL DEMAND SOURCES | 75.6 | 76.4 | 77.1 | 77.9 | 78.7 |

NOTE 1:

SUMMER DEMAND FORECAST

MW'S

| 740 | | ***** | ***** | ***** | **** | **** |
|-----|--|---------------------------------------|---|--------------------------------|--------|--|
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 |
| | EM SUMMER PEAK AND IN MW'S | · · · · · · · · · · · · · · · · · · · | *************************************** | and the control of the control | | ************************************** |
| 1 | SYSTEM PEAK DEMAND | 79.5 | 80.3 | 81.1 | 81.9 | 82.7 |
| | | ****** | ****** | ***** | ****** | ***** |
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 |
| DEM | AND SOURCES | | | | | |
| 2 | COMPANY OWNED HYDRO GENERATION | 9.0 | 9.0 | 9.0 | 9.0 | 9.0 |
| 6 | PURCHASED FROM PURPA QUALIFYING FACILITY | SEE NOTE 1 | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPAN | 70.5 NY | 71.3 | 72.1 | 72.9 | 73.7 |
| 8 | TOTAL DEMAND SOURCES | 79.5 | 80.3 | 81.1 | 81.9 | 82.7 |

NOTE 1:

WINTER DEMAND FORECAST

MW'S

| ,,, | | ************** | | | | | |
|-----|--|----------------|--------------------------------|---|-------|------|--|
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | EM WINTER PEAK AND IN MW'S | | # 44 10 4 4 4 4 4 4 | ₩₩ @ == ₩********************************* | | | |
| 1 | SYSTEM PEAK DEMAND | 64 | 64.6 | 65.2 | 65.9 | 66.5 | |
| | | ***** | ***** | **** | ***** | **** | |
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | AND SOURCES COMPANY OWNED HYDRO GENERATION | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | |
| 6 | | SEE NOTE 1 | | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPA | 51 NY | 51.6 | 52.2 | 52.9 | 53.5 | |
| 8 | TOTAL DEMAND SOURCES | 64 | 64.6 | 65.2 | 65.9 | 66.5 | |

NOTE 1: .

WINTER DEMAND FORECAST

MW'S

| | | *************** | | | | | |
|------|--|---|-------------|-------------------------------------|------|-------|--|
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 | |
| | EM WINTER PEAK AND IN MW'S | - ************************************* | | _{фону} нической бо др. ин. | | | |
| 1 | SYSTEM PEAK DEMAND | 67.2 | 67.9 | 68.6 | 69.3 | 69.9 | |
| | | ***** | **** | **** | **** | ***** | |
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 | |
| DEMA | AND SOURCES | | | - | | | |
| 2 | COMPANY OWNED HYDRO GENERATION | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 | |
| 6 | PURCHASED FROM PURPA QUALIFYING FACILITY | SEE NOTE 1 | | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPA | 54.2 NY | 54.9 | 55.6 | 56.3 | 56.9 | |
| 8 | TOTAL DEMAND SOURCES | 67.2 | 67.9 | 68.6 | 69.3 | 69.9 | |

NOTE 1:

WINTER DEMAND FORECAST

MW'S

| **** | | ****** | ***** | ***** | ***** | ***** |
|------|--|------------|-------|---|------------------------------|-------|
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 |
| | EM WINTER PEAK ND IN MW'S | | | *************************************** | All appears can his 49° feet | |
| 1 | SYSTEM PEAK DEMAND | 70.6 | 71.3 | 72.1 | 72.8 | 73.5 |
| | | ****** | ***** | ***** | ***** | ***** |
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 |
| DEMA | AND SOURCES | | | | | • |
| 2 | COMPANY OWNED HYDRO GENERATION | 13.0 | 13.0 | 13.0 | 13.0 | 13.0 |
| 6 | PURCHASED FROM PURPA QUALIFYING FACILITY | SEE NOTE 1 | | | | |
| 7 | PURCHASES FROM DUKE POWER COMPA | 57.6 NY | 58.3 | 59.1 | 59.8 | 60.5 |
| 8 | TOTAL DEMAND SOURCES | 70.6 | 71.3 | 72.1 | 72.8 | 73.5 |

NOTE 1:

SUPPLY AND SALES FORECAST

| | MWH'S | 5 | OPPLY AND | SALES FURE | JASI | | |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|--|
| | MMH 2 | ****** | ***** | ***** | ***** | **** | |
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | | | **** | | | 20 cm cm cm | |
| | SYSTEM REQUIREMENTS | | | | | | |
| | | | | | | | |
| 1 | METERED SALES | 353000 | 360060 | 367261 | 374606 | 382098 | |
| 2 | COMPANY USE | 520 | 530 | 541 | 552 | 563 | |
| 3 | LOSSES | 13869 | 14146 | 14428 | 14716 | 15010 | |
| 4 | REQUIRED SYSTEM INPUT | 367389 | 374736 | 382230 | 389874 | 397671 | |
| | | | | | | | |
| | | ***** | **** | ***** | ***** | ***** | |
| | | | | | | | |
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | DESCRIPTION | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | DESCRIPTIONSUPPLY SOURCES | 1996 | 1997 | 1998 | 1999 | 2000 | |
| | | 1996 | 1997 | 1998 | 1999 | 2000 | |
| 5 | | 1996 91770 | 1997 91770 | 1998 91770 | 1999 91770 | 2000 91770 | |
| 5 | SUPPLY SOURCES | | | | | | |
| 5 | SUPPLY SOURCES COMPANY OWNED HYDRO | | | | | | |
| | SUPPLY SOURCES COMPANY OWNED HYDRO GENERATION | 91770 | 91770 | 91770 | 91770 | 91770 | |
| | SUPPLY SOURCES COMPANY OWNED HYDRO GENERATION PURCHASES FROM PURPA | 91770 | 91770 | 91770 | 91770 | 91770 | |
| 6 | SUPPLY SOURCES COMPANY OWNED HYDRO GENERATION PURCHASES FROM PURPA QUALIFYING FACILITY | 91770 4250 | 91770 4250 | 91770 4250 | 91770 4250 | 91770 4250 | |

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SUPPLY AND SALES FORECAST

| | MWH'S | ************************************** | | | | | | | |
|---|---|--|-------------------|-------------------|--------|-------------------|--|--|--|
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 | | | |
| | | | | | | | | | |
| | SYSTEM REQUIREMENTS | | | | | | | | |
| 1 | METERED SALES | 389740 | 397535 | 405486 | 413595 | 421867 | | | |
| 2 | COMPANY USE | 574 | 586 | 597 | 609 | 621 | | | |
| 3 | LOSSES | 15310 | 15615 | 15927 | 16246 | 16571 | | | |
| 4 | REQUIRED SYSTEM INPUT | 405624 | 413736 | 422010 | 430450 | 439059 | | | |
| | | ****** | ***** | **** | ***** | ***** | | | |
| | DESCRIPTION | 2001 | 2002 | 2003 | 2004 | 2005 | | | |
| | DESCRIPTIONSUPPLY SOURCES | 2001 | 2002 | 2003 | 2004 | 2005 | | | |
| 5 | ************* | 2001 91770 | 2002 91770 | 2003 91770 | 91770 | 2005 91770 | | | |
| 5 | SUPPLY SOURCES COMPANY OWNED HYDRO | | | | · | ~ | | | |
| | SUPPLY SOURCES COMPANY OWNED HYDRO GENERATION | 91770 | 91770 | 91770 | 91770 | 91770 | | | |
| | SUPPLY SOURCES COMPANY OWNED HYDRO GENERATION PURCHASES FROM PURPA | 91770 | 91770 | 91770 | 91770 | 91770 | | | |

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SUPPLY AND SALES FORECAST

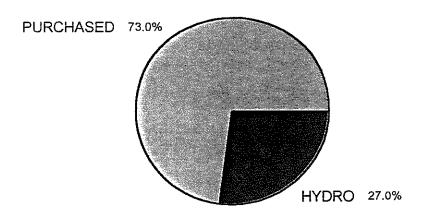
| | MWH'S | ************************************** | | | | | | | | |
|---|--------------------------------|--|------------------|--------|--------|-------------|--|--|--|--|
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 | | | | |
| | SYSTEM REQUIREMENTS | ***** | 40 Street Car-40 | ****** | | <u></u> | | | | |
| 1 | METERED SALES | 430304 | 438911 | 447689 | 456643 | 465775 | | | | |
| 2 | COMPANY USE | 633 | 646 | 659 | 672 | 685 | | | | |
| 3 | LOSSES | 16903 | 17239 | 17583 | 17934 | 18293 | | | | |
| 4 | REQUIRED SYSTEM INPUT | 447840 | 456796 | 465931 | 475249 | 484753 | | | | |
| | | ****** | ***** | ***** | **** | ***** | | | | |
| | DESCRIPTION | 2006 | 2007 | 2008 | 2009 | 2010 | | | | |
| | SUPPLY SOURCES | | # W 17 10 PP | | | # # # # # # | | | | |
| 5 | COMPANY OWNED HYDRO GENERATION | 91770 | 91770 | 91770 | 91770 | 91770 | | | | |
| 6 | PURCHASES FROM PURPA | 4250 | 4250 | 4250 | 4250 | 4250 | | | | |
| | QUALIFYING FACILITY | | | | | | | | | |
| 7 | PURCHASES FROM DUKE | 351820 | 360776 | 369911 | 379229 | 388733 | | | | |
| | POWER COMPANY | | | | | | | | | |
| 8 | TOTAL SUPPLY | 447840 | 456796 | 465931 | 475249 | 484753 | | | | |

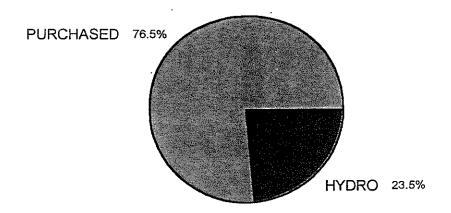
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LOCKHART POWER COMPANY — LONG RANGE CAPITAL BUDGET (\$000'S)

| * | пем# | DESCRIPTION OF ITEM | OWNER | 1996 | 1997 | 1998 | 1999 | 2000 | 200 | 200 | 2 200: | 3 200 | 2005 |
|-----------------------|--|--|---|----------------------------------|----------------------|------------------------------|------------------------------|----------------------------|--------------------------|--------------------------|--------------------------|---------------|-------------------------------|
| G E N | 2 REWI 3 REPL | ACE LOW TENSION BREAKER ND GENERATORS ACE TRANSFORMER CABLES ACE DOG HOUSE BREAKER | HSH 120 120 12 CABLES HSH 30 30 30 3 | | | | | 20 | | | | | |
| T R A N S | 7 TRAN 8 TRAN | ACE 34KV BREAKER SMISSION SWITCHES SMISSION LINES D CONTROL TRANSMISSION SWITCHES | HSH HBP HBP HBP | 6: | 2 | | 5 2 | 5 2 | 5 2 | | | 00 10 25 2 | 00 100 25 25 |
| D S T R | 12 REPLA 13 DISTR 14 DISTR 15 DISTR | ACE TRANSFORMER ACE REGULATORS IBUTION BREAKERS IBUTION SWITCHES IBUTION LINES I CONTROL DISTRIBUTION | HBP HBP HBP HBP HBP HSH | 260 50 | 1: 2: 1: 2: | 5 25 5 25 5 15 5 25 | 0 20 5 25 5 15 5 25 | 20 5 25 5 15 5 25 |) 2 5 2 5 1 6 2 | 0 2 5 2 5 2 5 2 | 0 2 5 2 0 2 5 5 | 20 2 25 2 | 0 20 5 25 5 25 0 100 |
| M I S C E L | 18 REPLA 19 HYDR. 20 REPLA 21 REPLA | ICE VEHICLES ICE MAIN COMPUTER OPERHEAD GATES-DAM ICE CONTROL FOR DAM ICE TRASH RAKE UTERIZED MAPPING SYSTEM | HBP PWI GET GET JHS | 125 25 81 | 5 50 50 | 40 | 100 |) | | _ | | 5 10 | 0 100 125 |
| FLANEOU | 23 LOCKI- 24 REBUII 25 EQPT. 26 VEHICI 27 AUTOM | ALENT WATER SYSTEM LD HEADGATES - DAM STORAGE BUILDINGS LE STORAGE BUILDING ATIC METER READING-IND. & RESALE RELICENSING | HSH GET HSH HBP HBP HBP PWI | 18 75 | 75 20 | | | 28 50 | 21 50 | | | 0 | |
| 8 | 29 REPLA 30 ADDITI 31 MOBILE 32 REPLA 33 MOBILE 34 REPLA | CE HYDRO WINDOWS ONAL ROOF LADDERS E OIL FILTER CE SHOP EQUIPMENT E AIR COMPRESSOR CE GRASS CUTTING EQUIPMENT NE W.O.'S & J.O.'S | GET GET GET GET GET GET HBP | 30 30 10 10 5 400 | 15 10 5 400 | 5 | | 400 | 400 |) 450 | 450 |) 450 | 450 |
| | 38 TOT/ | AL CAPITAL EXPENDITURES | | 1282 | 1230 | 1382 | 1429 | 1331 | 1303 | 1010 | 1025 | 970 | 1095 |
| EXPENSE | 40 WATER 41 GUNITE 42 DEMOLI 43 REPLAC 44 LAN FOI 45 SUPERV 46 RE-ROC 47 SEAL FO | | HSH GET GET GET JHS JHS GET GET GET | 10 15 10 | 40 45 12 | 50 | 50 | 20 50 | 50 | 50 50 | | | · |
| | | L SPECIAL EXPENSED COSTS | | 35 | 107 | 50 | 50 | 70 | 50 | 100 | 0 | 0 | 0 |
| | | CASH FLOW RELATED EXPENDITURES | | 1317 1850 | 1337 1850 | 1432 1850 | 1479 1850 | 1401 1850 | 1353 1850 | 1110 1850 | 1025 1850 | 970 1850 | 1095 1850 |
| | 52 AFTER T | AX EARNINGS | | 1160 | 1160 | 1160 | 1160 | 1160 | 1160 | 1160 | 1160 | 1160 | 1160 |
| | 53 TAX DEP | RECIATION | | 974 | 1027 | 1050 | 1089 | 1148 | 1196 | 1227 | 1250 | 1270 | 1296 |
| | 54 NET CAS | H FLOW (DIVIDENDS) | | 817 | 850 | 778 | 770 | 907 | 1003 | 1277 | 1385 | 1460 | 1351 |
| | 55 DIVIDENI | OS AS % OF EARNINGS | | 70.4% | 73.3% | 67.1% | 66.4% | 78.2% | 86.5% | 110.1% | 119.4% | 125.9% | 117.3% |

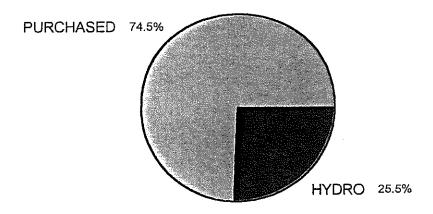
ENERGY SOURCES IN PERCENT OF MWH'S INPUT

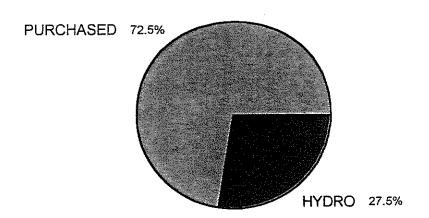




1995

1994





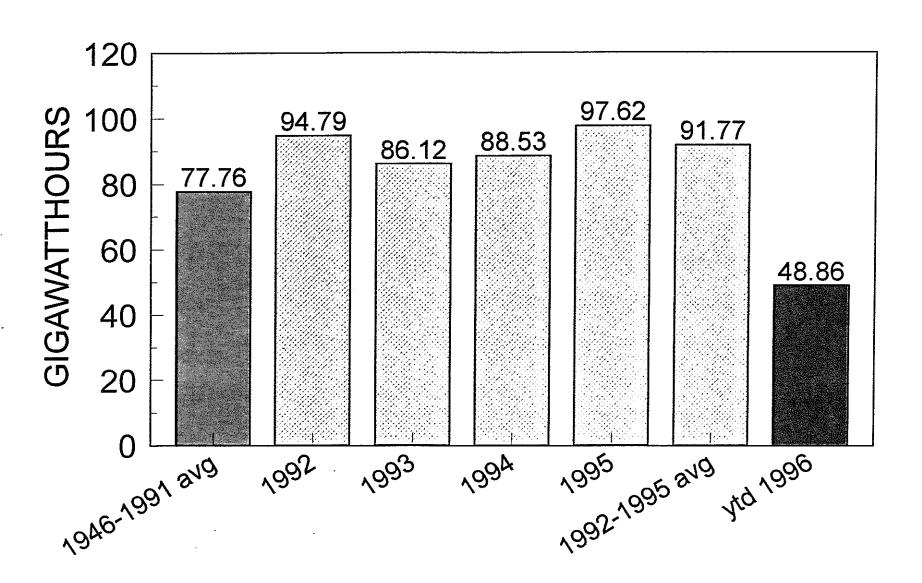
1993 1992

LOCKHART POWER COMPANY FORECAST OF PURCHASED POWER SAVINGS IN 1996 DUE TO REPLACEMENT POWER TRANSFORMERS AND AUTOMATIC INTAKE RACKS CLEANING SYSTEM

| Α | В | С |
|--|-------------------------|-------------------|
| ITEM . | KILOWATTHOUR SAVINGS | DOLLAR SAVINGS |
| Transformer #3 Lockhart Hydro Station (12 months) | 1,300,000 | \$63,400 |
| Transformer #1 Lockhart Hydro Station (6 months) | 500,000 | \$24,400 |
| Transformer #4 Lockhart Hydro Station (6 months) | 500,000 | \$24,400 |
| West Springs Transformer (12 months) | 800,000 | \$39,000 |
| Cross Anchor Transformer (12 months) | 100,000 | \$4,900 |
| 6. Monarch Distribution (6 mon | nths 60,000 | \$2,900 |
| 7. 1/3 Intake Racks (12 month | s) 341,775 | \$16,700 |
| 8. 2/3 Intake Racks (5 months |) 284,812 | \$13,900 |
| ïOTAL | 3,886,587 | \$189,600 |

NOTE: The above annualized is 5,345,323 Kilowatthours and \$260,728

LOCKHART POWER COMPANY ANNUAL HYDROELECTRIC GENERATION



CASH FLOW BREAKEVEN TEST

| | | | | | | | OPERAT | ING RESUL | TS (MS) | CAPITOLE | MPLOYED | CASH | FLOW |
|--------------|----|-----------|-----------------------------|------------------|-----------|---------------------|-------------------|-----------|--------------|------------------|----------------------------|------|-----------------------------|
| YE | AR | 40050 NET | PRE-TAX PROFIT, AFTER | DEPRECI | ATION ON | | PROFIT | | GROSS | | ALLOCATED | | |
| PRO- JECT | | SALES | EXPENSE. BEFORE DEPR. | REQUEST ITEMS | TRANSFERS | INCOME TAX | AFTER TAX | | CASH FLOW | *FIXED ASSETS | TRANS- FERRED ASSETS | NET | CUMULATIVE NET |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7. | 8 | 9 | 10 | 11 | 12 | 13 |
| | _ | | | | | 34% x 3 - (4 +6) | 3- (4 + 5 + 6) | | 4+7 | | | 0+10 | ALGEBRAIC SUN OF COL. 12 |
| | | | | | | | <u> </u> | | | | | | |
| 2 | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | |
| 4 | | | | | | | | | | | | , | |
| 5 | | | | | | | | | <u> </u> | | | | |

LOCKHART POWER COMPANY DOCKET NUMBER 91-671-E

REDUCTION OF ANNUAL PURCHASED POWER COST DUE TO INCREASED EFFICIENCY AND OUTPUTS OF REHABILITATED HYDROELECTRIC UNITS

| It | em (A) | (B) |
|----|--|------------------|
| 1 | Average Annual Hydro Generation Based On Average Annual Rainfall from 1992-1995 | 91,770,000 KWH'S |
| 2 | Average Annual Hydro Generation 1946 through 1991 | 77,760,000 KWH'S |
| 3 | Increased Hydro Generation Obtained By Subtracting Item 2 From Item 1 | 14,010,000 KWH'S |
| 4 | Average Purchased Power Cost Per KWH For The 12 Months Ended 11-30-95 | 4.8777 cents |
| 5 | Annual Reduction of Purchased Power Cost Obtained By Multiplying Item 3 Times Item 4 | \$683,365,77 |

LOCKHART POWER COMPANY Selected Rainfall Data

