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DEPARTMENT OF

WATER RESOURCES

U.S. BUREAU OF RECLAMATION

DIRECTOR'S OFFICE

FEBRUARY 19, 1986

MEMORANDUM

TO: PARTICIPANTS INVOLVED IN FORMULATING THE  
POWER MARKETING PLAN

FROM: LARRY LINSER *CH*

DATE: MARCH 19, 1986

SUBJECT: INTERIM NAVAJO POWER MARKETING PLAN

|                                 |          |
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| INITIALS                        | INITIALS |

ENCLOSED IS A COPY OF THE INTERIM NAVAJO POWER MARKETING PLAN SIGNED BY THE COMMISSIONER OF RECLAMATION. ATTACHED TO THE PLAN ARE LETTERS OF CONCURRENCE FROM THE GOVERNOR, CAWCD AND DEPARTMENT OF ENERGY.

ALSO ENCLOSED IS AN UP-TO-DATE MAILING LIST OF PARTICIPANTS INVOLVED IN DEVELOPING THE PLAN.

ENCLOSURES

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INTERIM NAVAJO POWER MARKETING PLAN

MARCH 17, 1986

U.S. DEPARTMENT OF INTERIOR

BUREAU OF RECLAMATION

C. DALE DUVALL, COMMISSIONER

## INTERIM NAVAJO POWER MARKETING PLAN

### I. PURPOSE AND SCOPE

Section 107 of the Hoover Power Plant Act of 1984, Public Law 98-381, requires that a Power Marketing Plan be developed to provide for the sale of the capacity and energy from the Central Arizona Project's share of the Navajo Generating Station that is surplus to the Project needs (Navajo surplus). Specifically, Subsection 107(c) of this Act requires that a Power Marketing Plan be developed to provide for marketing and exchanges of electrical capacity and energy which are in excess of the pumping requirements of the Central Arizona Project (CAP) and any such needs for desalting and protective pumping facilities as may be required under Title I, to Section 101(b)(2)(B) of the Colorado River Basin Salinity Control Act (P.L. 93-320) (Salinity Control Act facilities).

This Interim Navajo Power Marketing Plan will provide for marketing of Navajo surplus during the initial delivery and pump testing period of CAP operations and during the pre-New Waddell period. The long-range Navajo Marketing Plan which is presently under development will provide for the subsequent marketing of Navajo surplus.

A. This Interim Navajo Power Marketing Plan will maintain the obligation for the United States to use its entitlement to the Navajo resources to provide necessary power for the CAP pumping needs and Salinity Control Act facilities use. The Interim Plan will provide financial assistance to assure the timely construction and applicable repayment of CAP

costs reimbursable by CAWCD. This plan is also designed to maximize the amount of capacity and energy available for sale as required by the Colorado River Basin Project Act of 1968. The estimated amounts of Navajo surplus were obtained from data contained in a report by the Bureau of Reclamation entitled "Central Arizona Project Power Marketing and Water Supply Study - October 1985." The attached Exhibit 1, entitled, "Surplus/Shortage Pumping Power Profile - Pre-New Waddell", summarizes the data to show the approximate capacity and energy available, by month, for the interim period.

B. This Interim Navajo Power Marketing Plan is consistent with Section 107(d) of the Hoover Power Plant Act of 1984.

This Interim Navajo Power Marketing Plan provides that Western Area Power Administration (Western), will work closely with the CAWCD and the Bureau of Reclamation on CAP and river operations. Western, working closely with CAWCD, will market the surplus Navajo capacity and energy under conditions similar to the existing layoff contracts, the Conformed General Consolidated Power Marketing Criteria or Regulations for Boulder City Area Projects (Criteria), and in accordance with the Navajo allocation process already in progress as announced in The Federal Register on March 28, 1984, at 49FR11873. Western will manage the marketing and exchange of the Navajo surplus under this Interim Power Marketing Plan. This plan will terminate as provided in the long-range Navajo Power Marketing Plan or on September 30, 1990. Revenues from the sale and exchange of Navajo surplus power and energy derived from added rate component(s) set forth in Article V of this plan will be utilized and assigned to make repayment and establish reserves for repayment of \$175,000,000 (or more) of funds advanced by or for CAWCD for construction of authorized features of the CAP. These revenues, together with such revenues under the long-range Navajo Marketing Plan should be sufficient

to make repayment and establish reserves for repayment of the funds advanced by or for CAWCD for the construction of authorized CAP features and to provide financial assistance for repayment of CAP costs reimbursable by CAWCD.

During the Interim Marketing period, optimization of Navajo surplus will be achieved primarily through delivering maximum amounts of water in the daytime from aqueduct storage and then recharging that storage to the maximum extent possible by utilizing off-peak pumping.

## II. AUTHORITIES

A. Federal reclamation laws including, but not limited to, the Colorado River Basin Project Act (PL 90-537), and the Hoover Power Plant Act, (PL 98-381).

B. Rules, regulations, and agency agreements of the United States Department of Interior, Bureau of Reclamation, and the United States Department of Energy, Western Area Power Administration, issued or made pursuant to applicable law.

## III. QUANTITIES AND CLASSES OF POWER

A. Classes of services have been defined based upon the following principles:

1. Excess capacity and energy is defined as that amount in excess of the pumping requirements of the CAP and any such needs for Salinity Control Act facilities use. Under this Plan, such excess capacity and energy will be offered for sale and for exchange. It is expected that the Salinity Control Act facilities will not create a demand on Navajo surplus during the term of the Interim Plan. Accordingly this Interim Plan assumes that there will be no

Navajo surplus furnished to the Salinity Control Act facilities.

2. A feature of the proposed CAP operation during the interim Navajo marketing period is daily energy management as well as weekly management. Pumping will be done during off-peak hours to the extent possible in order to maximize daily on-peak availability of surplus Navajo capacity and energy. For the purposes of this interim plan, a typical day (Monday through Saturday) consists of 12 hours of "on-peak" time and 12 hours of "off-peak" time. The on-peak summer period is typically from 9:00 a.m. to 9:00 p.m. The on-peak winter day periods are typically from 5:00 a.m. to 10:00 a.m. and from 3:00 p.m. to 10:00 p.m.

3. Western working closely with CAWCD and the Bureau of Reclamation will annually modify Exhibit I to reflect anticipated surplus Navajo generation for the upcoming year considering anticipated Navajo availability and anticipated pumping requirements.

#### B. Classes

1. Capacity and energy marketed in the interim period shall be offered as contingent Navajo power as has been the case in the present layoff contracts. Any Navajo power reserved for pumping shall also be contingent power. Any call for curtailment of Navajo schedules shall affect pump schedules and surplus power sales proportionally in any given hour.

2. Capacity and energy exchanges will be used during the interim marketing period to the extent possible in order to provide for monthly shortages and to provide for CAP pump testing.

3. Any Navajo surplus that is not marketed or exchanged under 1 or 2 above, will be marketed by Western under short-term arrangements.

#### **IV. CONTRACT TERM**

Capacity and energy shall be marketed or exchanged under terms of contracts which will terminate when the long-range plan is implemented.

#### **V. RATESETTING METHODOLOGY**

Rates shall be determined by Western Area Power Administration in accordance with the accepted methods contained in existing layoff contracts except that there shall also be additional rate components as follows:

Additional rate component(s) will be established (in addition to components currently collected) pursuant to provisions of Section 107 of the Hoover Power Plant Act of 1984 (Act). The revenues from the additional rate components will be collected and may be deposited in an escrow account established pursuant to an escrow agreement entered into between the Bureau of Reclamation and CAWCD, to implement Section 107 of the Act. Additional rate components shall not exceed amounts which, when added to the rate component currently collected, allow for appropriate savings to the contractor as required by Section 107(d) of the Act.

##### **A. Market Area and Eligibility**

1. Sales will be offered, in the following order of priority, to entities having the status of preference entities under the provisions of Section 9(c) of the Reclamation Project Act of 1939 and as provided in part IV, Section A, of the Criteria.

a. Preference entities within Arizona.

- b. Preference entities within the Boulder City Marketing Area.
- c. Preference entities in adjacent federal marketing areas.
- d. Nonpreference entities in the Boulder City Marketing Area.

#### B. Contract Provisions

Contract provisions shall comply with Western's Conformed General Consolidated Power Marketing Criteria or Regulations for Boulder City Area Projects (Criteria) published in the Federal Register on December 28, 1984, at 49FR50582.

#### C. Conditions of Delivery

##### 1. Point of Delivery

Power and energy sold under this Plan shall be delivered to purchasers at any of the following Navajo transmission system switchyards:

Westwing Switchyard

McCullough Switchyard

Any necessary transmission service beyond these points will be the responsibility of the contractor.

##### 2. Voltage

All deliveries shall be at 500 KV except deliveries to Westwing Switchyard shall be at 230 KV.

##### 3. Operation Procedures/Power Accounting

Operations and accounting procedures to be in effect through the interim period shall be those previously employed for layoff contracts, except that Western shall have authority to alter such procedures to effect improved operations.

4. System Losses

As per existing layoff principles.

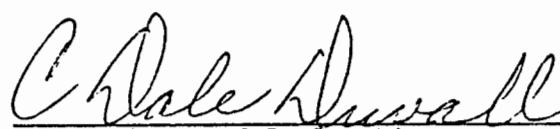
D. System Reserve Requirements

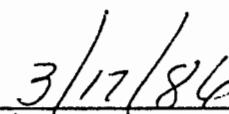
All power and energy sold under this Plan shall be contingent upon the operation of the Navajo Generating Station. Any curtailment of capacity at the station shall be proportionally deducted from capacity entitlements of each purchaser and the CAP pumps.

VI. CONSULTATION

The Interim Navajo Power Marketing Plan is deemed most acceptable in accordance with Section 107(c) of the Hoover Power Plant Act of 1984 as evidenced by the attached letters of concurrence from the Western Area Power Administration (Secretary of Energy), the Governor of Arizona, and the Central Arizona Water Conservation District.

Adopted by:

  
C. Dale Duvall  
Commissioner of Reclamation

  
3/17/86  
Date

Attachments

**SURPLUS/SHORTAGE**  
**WATER PROFILE (PRE-NEW WADDELL)**

**Exhibit 1**

| 1987 WATER YEAR              |  | LINE   | UNITS  | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    | TOTAL  |
|------------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>TOTAL HOURS PER MO.</b>   |  | 100.0% | 744.0  | 720.0  | 744.0  | 672.0  | 744.0  | 720.0  | 744.0  | 720.0  | 744.0  | 720.0  | 744.0  | 720.0  | 744.0  | 9760.0 |
| ON PEAK HOURS                |  | 42.9%  | 318.9  | 308.6  | 318.9  | 288.0  | 318.9  | 308.6  | 318.9  | 308.6  | 318.9  | 308.6  | 318.9  | 308.6  | 318.9  | 3754.3 |
| OFF PEAK HOURS               |  | 57.1%  | 425.1  | 411.4  | 425.1  | 425.1  | 384.0  | 425.1  | 411.4  | 425.1  | 411.4  | 425.1  | 425.1  | 411.4  | 425.1  | 5005.7 |
| <b>TOT. RESOURCES AVAIL.</b> |  | AVAIL  | 111.5% | 121.1% | 131.3% | 129.3% | 87.5%  | 86.1%  | 94.8%  | 80.0%  | 87.5%  | 87.5%  | 87.5%  | 87.5%  | 87.5%  | 78.3%  |
| MW                           |  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 546.8  |
| GWH                          |  | 302.4  | 317.7  | 356.0  | 352.1  | 214.3  | 233.5  | 248.9  | 325.3  | 344.5  | 356.0  | 356.0  | 356.0  | 356.0  | 344.5  | 3751.1 |
| <b>HAYASU PUMPING PLT</b>    |  | KAF    | 0.0    | 0.0    | 0.0    | 23.9   | 45.6   | 77.3   | 100.5  | 79.8   | 114.3  | 143.1  | 145.9  | 102.3  | 832.9  |        |
| COLD RIVER WATER DIVERTED    |  | KAF    | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 |
| CONVERSION FACTOR KWH/AF     |  | GWH    | 0.0    | 0.0    | 0.0    | 25.0   | 47.7   | 30.8   | 105.1  | 83.4   | 119.5  | 149.6  | 152.3  | 107.2  | 870.3  |        |
| TOTAL ENERGY AT PLANT        |  | GWH    | 112.2  | 108.6  | 112.2  | 112.2  | 101.4  | 112.2  | 108.6  | 112.2  | 108.6  | 112.2  | 112.2  | 108.6  | 112.2  | 108.6  |
| OFF PK ENERGY CAPABILITY     |  | GWH    | 0.0    | 0.0    | 0.0    | 25.0   | 47.7   | 90.8   | 105.1  | 83.4   | 108.6  | 112.2  | 112.2  | 107.2  | 107.2  | 792.2  |
| HAYASU OFF PEAK AVG MW       |  | GWH    | 0.0    | 0.0    | 0.0    | 53.8   | 124.2  | 190.1  | 255.4  | 195.2  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 260.5  |
| UNITS REQUIRED OFF PEAK      |  | NUM    | 0      | 0      | 0      | 2      | 3      | 5      | 6      | 5      | 6      | 6      | 6      | 6      | 6      | 6      |
| CAPACITY REQ'D OFF PEAK      |  | MW     | 0.0    | 0.0    | 0.0    | 88.0   | 132.0  | 220.0  | 264.0  | 220.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| ON PEAK ENERGY               |  | GWH    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 10.9   | 37.4   | 40.3   | 0.0    | 0.0    | 83.6   |
| HAYASU ON PEAK AVG MW        |  | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 35.3   | 117.2  | 126.4  | 0.0    | 0.0    | 0.0    |
| UNITS REQ'D ON PEAK          |  | NUM    | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 1      | 3      | 3      | 0      | 0      | 0      |
| CAPACITY REQ'D ON PEAK       |  | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 44.0   | 132.0  | 132.0  | 0.0    | 0.0    | 0.0    |
| <b>ALL OTHER PLANTS</b>      |  | GWH    | 0.0    | 0.0    | 7.0    | 40.3   | 74.2   | 127.6  | 165.6  | 133.7  | 188.0  | 234.0  | 237.8  | 170.2  | 1378.9 |        |
| TOTAL GWH AS PER USBR        |  | GWH    | 0.0    | 0.0    | 7.2    | 42.0   | 76.3   | 131.3  | 170.4  | 137.6  | 193.4  | 240.8  | 244.7  | 175.1  | 1413.7 |        |
| ENERGY ADJ. FOR LOSSES       |  | 102.9% | 0.0    | 0.0    | 7.2    | 17.0   | 28.7   | 50.5   | 65.3   | 54.1   | 73.9   | 91.1   | 92.1   | 67.9   | 547.9  |        |
| NET ENERGY OTHER PLANTS      |  | GWH    | 0.0    | 0.0    | 9.7    | 22.8   | 42.7   | 67.8   | 90.7   | 72.7   | 102.7  | 122.5  | 123.8  | 94.4   | 94.4   |        |
| AVG 24-HR CAPACITY           |  | MW     | 0.0    | 0.0    | 4.1    | 9.7    | 16.4   | 28.8   | 37.3   | 30.9   | 42.2   | 52.1   | 52.6   | 38.8   | 313.1  |        |
| OFF PEAK ENERGY              |  | GWH    | 0.0    | 0.0    | 3.1    | 7.3    | 12.3   | 21.6   | 28.0   | 23.2   | 31.7   | 39.1   | 39.5   | 29.1   | 234.8  |        |
| ON PEAK ENERGY               |  | GWH    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |        |

**Exhibit 1  
SURPLUS/SHORTAGE  
1G POWER PROFILE (PRE-HEV YADDELL)**

| LINE                   | UNITS | OCT    | NOV    | DEC    | JAN    | FEB    | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | TOT AL |
|------------------------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|--------|
| <b>1987 WATER YEAR</b> |       |        |        |        |        |        |       |       |       |       |       |       |       |        |
| <b>SURPLUS TO CAP</b>  |       |        |        |        |        |        |       |       |       |       |       |       |       |        |
| ON PEAK CAPACITY       | MW    | 364.5  | 364.5  | 354.8  | 341.7  | 321.8  | 296.7 | 273.9 | 474.1 | 400.1 | 292.3 | 291.0 | 452.4 | 474.1  |
| ON PEAK ENERGY         | GWH   | 129.6  | 136.2  | 149.5  | 143.6  | 79.6   | 73.4  | 78.6  | 116.2 | 105.1 | 76.1  | 72.8  | 118.5 | 1234.3 |
| CAPACITY FACTOR ON PK  | %     | 111.5% | 121.1% | 132.1% | 131.9% | 35.8%  | 82.9% | 93.1% | 76.9% | 85.1% | 81.7% | 78.5% | 84.9% | 72.2%  |
| OFF PEAK CAPACITY      | MW    | 364.5  | 364.5  | 354.8  | 253.7  | 189.8  | 76.7  | 9.8   | 254.1 | 180.1 | 160.3 | 159.0 | 198.4 | 254.1  |
| OFF PEAK ENERGY        | GWH   | 172.8  | 181.5  | 199.3  | 166.5  | 53.4   | 23.8  | -0.2  | 71.5  | 46.0  | 39.1  | 38.6  | 50.9  | 1043.2 |
| CAPACITY FACTOR OFF PK | %     | 111.5% | 121.1% | 132.1% | 131.9% | 154.4% | 80.1% | 72.9% | -5.4% | 66.2% | 62.1% | 57.4% | 57.0% | 82.4%  |
| <b>MARKETABLE</b>      |       |        |        |        |        |        |       |       |       |       |       |       |       |        |
| SUMMER CAPACITY        | MW    | 291.0  |        |        |        |        |       |       |       |       |       |       |       |        |
| ANNUAL ENERGY          | GWH   | 2332.4 |        |        |        |        |       |       |       |       |       |       |       |        |
| ANNUAL CAPACITY FACTOR | %     | 91.5%  |        |        |        |        |       |       |       |       |       |       |       |        |

**NOTES:**

|  |        |
|--|--------|
| DATA TAKEN FROM USBR REPORT TITLES: CENTRAL ARIZONA PROJECT<br>POWER MARKETING AND WATER SUPPLY STUDY - OCTOBER 1985 | 2332.4 |
|--|--------|

Data taken from USBR report titles: CENTRAL ARIZONA PROJECT  
POWER MARKETING AND WATER SUPPLY STUDY - OCTOBER 1985

COLORADO RIVER WATER DIVERTED is from TABLE 12 (page 26)  
TOTAL GWH AS PER USBR is from TABLE 13 (page 27)

Navajo monthly energy production is estimated by Salt River Power District based upon present unit maintenance schedules.

**EXPLANATION**

Note that there is proportionately more Navajo energy surplus to CAP than there is capacity. This results from two factors: first Navajo Capacity for one unit is always shown unavailable for all wintertime maintenance months. Energy is shown on a historical basis which reflects that the unit maintenance does not last all month. The second factor is that Havasu pumps are placed on in discrete 44 MW increments and Navajo capacity is reserved accordingly. Energy is associated only with the amount of water pumped in the month.

**Exhibit 1**  
ING POWER PROFILE (PRE-NEW WADDELL)

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| 1988 WATER YEAR            |  | LINE<br>UNITS | OCT    | NOV    | DEC    | JAN    | FEB   | MAR    | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | ANNUAL<br>TOTAL |
|----------------------------|--|---------------|--------|--------|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-----------------|
| <b>TOTAL HOURS PER MO.</b> |  | 100.0%        | 744.0  | 720.0  | 744.0  | 744.0  | 672.0 | 744.0  | 720.0 | 744.0 | 720.0 | 744.0 | 720.0 | 720.0 | 8760.0          |
| <b>ON PEAK HOURS</b>       |  | 42.9%         | 318.9  | 308.6  | 318.9  | 318.9  | 288.0 | 318.9  | 308.6 | 318.9 | 308.6 | 318.9 | 318.9 | 309.6 | 3754.3          |
| <b>OFF PEAK HOURS</b>      |  | 57.1%         | 425.1  | 411.4  | 425.1  | 425.1  | 384.0 | 425.1  | 411.4 | 425.1 | 411.4 | 425.1 | 411.4 | 411.4 | 5005.7          |
| <b>TOT RESOURCES AVAIL</b> |  | AVAIL         | 120.0% | 112.3% | 131.3% | 129.9% | 97.5% | 107.3% | 90.4% | 85.6% | 87.5% | 87.5% | 87.5% | 82.6% | 79.3%           |
| <b>NAVAJO CAPACITY</b>     |  | MW            | 364.5  | 364.5  | 364.5  | 364.5  | 364.5 | 364.5  | 364.5 | 364.5 | 364.5 | 364.5 | 364.5 | 364.5 | 546.8           |
| <b>NAVAJO ENERGY</b>       |  | GWH           | 325.3  | 294.7  | 356.0  | 352.1  | 214.3 | 290.9  | 237.3 | 349.3 | 344.5 | 356.0 | 356.0 | 325.3 | 3800.7          |

| <b>HAYASU PUMPING PLT</b>         |  | KAF    | 53.8   | 31.8   | 40.2   | 41.3   | 64.6   | 116.1  | 133.3  | 115.4  | 158.2  | 184.4  | 146.4  | 146.5  | 1275.6 |
|-----------------------------------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>COLOR RIVER WATER DIVERTED</b> |  | KWH/AF | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 |
| <b>CONVERSION FACTOR</b>          |  | KWH/AF | 56.2   | 33.2   | 42.0   | 43.2   | 67.5   | 121.4  | 145.2  | 120.7  | 165.4  | 192.8  | 192.8  | 192.8  | 1333.6 |
| <b>TOTAL ENERGY AT PLANT</b>      |  | GWH    | 112.2  | 109.6  | 112.2  | 112.2  | 101.4  | 112.2  | 103.6  | 112.2  | 103.6  | 112.2  | 112.2  | 112.2  | 109.6  |
| <b>OFF PK ENERGY CAPABILITY</b>   |  | MW     | 98.0   | 132.0  | 132.0  | 176.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| <b>OFF PEAK ENERGY</b>            |  | GWH    | 56.2   | 33.2   | 42.0   | 43.2   | 67.5   | 112.2  | 109.6  | 112.2  | 108.6  | 112.2  | 112.2  | 112.2  | 109.6  |
| <b>HAYASU OFF PEAK AVG MW</b>     |  | GWH    | 132.3  | 80.8   | 98.9   | 101.6  | 175.9  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| <b>UNITS REQUIRED OFF PEAK</b>    |  | NUM    | 4      | 2      | 3      | 3      | 4      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      |
| <b>CAPACITY REQ'D OFFPEAK</b>     |  | MW     | 176.0  | 98.0   | 132.0  | 132.0  | 176.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| <b>ON PEAK ENERGY</b>             |  | GWH    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 9.1    | 36.6   | 8.4    | 56.8   | 80.6   | 80.6   | 44.5   | 316.6  |
| <b>HAYASU ON PEAK AVG MW</b>      |  | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 28.7   | 118.6  | 26.4   | 184.0  | 232.6  | 232.6  | 144.4  | 144.4  |
| <b>UNITS REQ'D ON PEAK</b>        |  | NUM    | 0      | 0      | 0      | 0      | 0      | 1      | 3      | 1      | 5      | 6      | 6      | 6      | 4      |
| <b>CAPACITY REQ'D ON PEAK</b>     |  | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 44.0   | 132.0  | 44.0   | 220.0  | 264.0  | 264.0  | 264.0  | 176.0  |
| <b>ALL OTHER PLANTS</b>           |  | GWH    | 91.6   | 54.1   | 68.1   | 70.3   | 106.6  | 194.4  | 231.6  | 194.7  | 263.4  | 305.3  | 305.3  | 245.8  | 2131.1 |
| <b>TOTAL GWH AS PER USBR</b>      |  | GWH    | 94.2   | 55.7   | 70.1   | 72.3   | 109.7  | 200.0  | 239.3  | 200.3  | 271.0  | 314.1  | 314.1  | 252.9  | 2192.6 |
| <b>ENERGY ADJ FOR LOSSES</b>      |  | GWH    | 38.0   | 22.4   | 28.0   | 29.1   | 42.1   | 78.6   | 93.1   | 79.7   | 105.6  | 121.3  | 121.3  | 99.7   | 858.9  |
| <b>NET ENERGY OTHER PLANTS</b>    |  | MW     | 51.1   | 31.1   | 37.7   | 39.2   | 62.7   | 105.7  | 129.3  | 107.1  | 146.7  | 163.1  | 163.1  | 138.5  | 138.5  |
| <b>AVG 24-HR CAPACITY</b>         |  | GWH    | 21.7   | 12.8   | 16.0   | 16.7   | 24.1   | 44.9   | 53.2   | 45.5   | 60.3   | 69.3   | 69.3   | 57.0   | 490.3  |
| <b>OFF PEAK ENERGY</b>            |  | GWH    | 16.3   | 9.6    | 12.0   | 12.5   | 18.1   | 33.7   | 39.9   | 34.1   | 45.3   | 52.0   | 51.9   | 42.7   | 363.1  |
| <b>ON PEAK ENERGY</b>             |  | GWH    |        |        |        |        |        |        |        |        |        |        |        |        |        |

**Exhibit 1  
SURPLUS/SHORTAGE :  
NG POWER PROFILE (PRE-NEW YADDELL)**

| LINE<br>1988 WATER YEAR | UNITS | OCT    | NOV    | DEC    | JAN    | FEB   | MAR     | APR    | MAY   | JUN   | JUL   | AUG   | SEP   | ANNUAL<br>TOTAL |
|-------------------------|-------|--------|--------|--------|--------|-------|---------|--------|-------|-------|-------|-------|-------|-----------------|
| <b>SURPLUS TO CAP</b>   |       |        |        |        |        |       |         |        |       |       |       |       |       |                 |
| ON PEAK CAPACITY        | MW    | 313.4  | 333.4  | 326.8  | 325.3  | 301.8 | 214.9   | 103.2  | 395.7 | 190.1 | 119.7 | 119.9 | 232.3 | 395.7           |
| ON PEAK ENERGY          | GWH   | 123.1  | 116.7  | 140.6  | 138.4  | 73.8  | 81.8    | 25.2   | 106.7 | 45.6  | 20.0  | 20.1  | 52.1  | 944.2           |
| CAPACITY FACTOR ON PK   | %     | 123.2% | 113.4% | 134.9% | 133.4% | 84.9% | 119.5%  | 79.1%  | 84.6% | 82.0% | 52.5% | 52.5% | 72.7% | 63.6%           |
| OFF PEAK CAPACITY       | MW    | 137.4  | 245.4  | 194.8  | 193.3  | 125.9 | -5.2    | -29.9  | 175.7 | 136.1 | 119.7 | 119.9 | 144.3 | 175.7           |
| OFF PEAK ENERGY         | GWH   | 107.9  | 122.3  | 145.4  | 141.4  | 30.8  | 9.1     | -26.2  | 41.3  | 27.9  | 21.9  | 21.9  | 20.3  | 664.0           |
| CAPACITY FACTOR OFF PK  | %     | 184.7% | 121.2% | 175.5% | 172.0% | 63.8% | -411.6% | 221.4% | 55.2% | 49.8% | 43.0% | 43.0% | 34.2% | 75.5%           |
| <b>MARKETABLE</b>       |       |        |        |        |        |       |         |        |       |       |       |       |       |                 |
| SUMMER CAPACITY         | MW    | 119.74 |        |        |        |       |         |        |       |       |       |       |       |                 |
| ANNUAL ENERGY           | GWH   | 1603.1 |        |        |        |       |         |        |       |       |       |       |       |                 |
| ANNUAL CAPACITY FACTOR  | %     | 153.3% |        |        |        |       |         |        |       |       |       |       |       |                 |

**NOTES:**

Data taken from USBR report titled: CENTRAL ARIZONA PROJECT  
POWER MARKETING AND WATER SUPPLY STUDY - OCTOBER 1985

COLORADO RIVER WATER DIVERTED is from TABLE 12 (page 26)  
TOTAL GWH AS PER USBR is from TABLE 13 (page 27)

Navajo monthly energy production is estimated by Salt River Power District based upon present unit maintenance schedules.

**EXPLANATION**

Note that there is proportionately more Navajo energy surplus to CAP than there is capacity. This results from two factors: first Navajo Capacity for one unit is always shown unavailable for all wintertime maintenance months. Energy is shown on a historical basis which reflects that the unit maintenance does not last all month. The second factor is that Hayasu pumps are placed on in discrete 44 MW increments and Navajo capacity is reserved accordingly. Energy is associated only with the amount of water pumped in the month.

## Exhibit 1

## SURPLUS/SHORTAGE PUMPING POWER PROFILE (PRE-NEW WADDELL)

5/7/86

| 1989 WATER YEAR            |        | LINE   | OCT    | NOV    | DEC    | JAN    | FEB    | MAR    | APR    | MAY    | JUN    | JUL    | AUG    | SEP    | ANNUAL |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| TOTAL HOURS PER MO.        | 100.0% | 744.0  | 720.0  | 744.0  | 744.0  | 672.0  | 744.0  | 720.0  | 744.0  | 720.0  | 744.0  | 744.0  | 720.0  | 8760.0 |        |
| UN PEAK HOURS              | 42.9%  | 318.9  | 308.6  | 318.9  | 318.9  | 283.0  | 318.9  | 308.6  | 318.9  | 308.6  | 318.9  | 318.9  | 303.6  | 3754.3 |        |
| OFF PEAK HOURS             | 57.1%  | 425.1  | 411.4  | 425.1  | 425.1  | 384.0  | 425.1  | 411.4  | 425.1  | 411.4  | 425.1  | 425.1  | 411.4  | 5005.7 |        |
| <u>TOT RESOURCES AVAIL</u> | AVAIL  | 86.1%  | 103.6% | 131.3% | 131.3% | 128.2% | 114.3% | 100.6% | 87.5%  | 87.5%  | 87.5%  | 87.5%  | 87.5%  | 80.6%  |        |
| NAVAJO CAPACITY            | MW     | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 546.8  |        |
| NAVAJO ENERGY              | GWH    | 233.5  | 271.9  | 356.0  | 356.0  | 313.9  | 310.0  | 264.1  | 356.0  | 344.5  | 356.0  | 356.0  | 344.5  | 3862.3 |        |
| <u>HAYASU PUMPING PLT</u>  |        | KAF    | 71.6   | 39.0   | 48.0   | 52.3   | 81.9   | 133.3  | 178.4  | 170.0  | 178.4  | 184.4  | 173.4  | 1500.6 |        |
| OLD RIVER WATER DIVERTED   |        | KWH/AF | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 |        |
| CONVERSION FACTOR          |        | KWH/MW | 74.9   | 40.3   | 50.2   | 54.7   | 85.6   | 139.9  | 186.5  | 177.7  | 186.5  | 192.8  | 192.8  | 136.5  |        |
| TOTAL ENERGY AT PLANT      |        | NUM    | 5      | 3      | 3      | 3      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 1563.9 |        |
| OFF PK ENERGY CAPABILITY   |        | MW     | 220.0  | 132.0  | 132.0  | 132.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 103.6  |        |
| OFF PEAK ENERGY            |        | GWH    | 74.9   | 40.9   | 50.2   | 54.7   | 85.6   | 112.2  | 109.6  | 112.2  | 108.6  | 112.2  | 112.2  | 108.6  |        |
| HAYASU OFF PEAK AVG MW     |        | GWH    | 176.1  | 99.1   | 118.0  | 128.6  | 223.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |        |
| UNITS REQUIRED OFF PEAK    |        | NUM    | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |        |
| CAPACITY REQ'D OFFPEAK     |        | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |        |
| ON PEAK ENERGY             |        | GWH    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 27.7   | 77.9   | 65.5   | 77.9   | 80.6   | 77.9   |        |
| HAYASU ON PEAK AVG MW      |        | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 96.7   | 252.5  | 205.4  | 252.5  | 252.6  | 252.5  |        |
| UNITS REQ'D ON PEAK        |        | NUM    | 0      | 0      | 0      | 0      | 0      | 0      | 2      | 6      | 5      | 6      | 6      | 6      |        |
| CAPACITY REQ'D ON PEAK     |        | MW     | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 88.0   | 264.0  | 220.0  | 264.0  | 264.0  | 264.0  |        |
| <u>ALL OTHER PLANTS</u>    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| TOTAL GWH AS PER USBR      |        | GWH    | 123.8  | 67.8   | 83.5   | 91.7   | 140.6  | 232.7  | 308.2  | 296.4  | 306.6  | 314.6  | 314.1  | 303.5  |        |
| ENERGY ADJ FOR LOSSES      |        |        | 102.9% | 127.4  | 69.8   | 95.9   | 94.3   | 144.7  | 239.4  | 317.1  | 305.0  | 315.4  | 323.7  | 323.2  |        |
| NET ENERGY OTHER PLANTS    |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| Avg 24-hr Capacity         |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| OFF PEAK ENERGY            |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| ON PEAK ENERGY             |        |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

**Exhibit 1**  
**SURPLUS/SHORTAGE PU...41G POWER PROFILE (PRE-NEW Y ADDLL)**

| LINE<br>1989 WATER YEAR | UNITS | OCT    | NOV    | DEC    | JAN    | FEB     | MAR    | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | ANNUAL<br>TOTAL |
|-------------------------|-------|--------|--------|--------|--------|---------|--------|-------|-------|-------|-------|-------|-------|-----------------|
| <b>SURPLUS TO CAP</b>   |       |        |        |        |        |         |        |       |       |       |       |       |       |                 |
| ON PEAK CAPACITY        | MW    | 293.9  | 324.2  | 316.5  | 311.2  | 276.7   | 142.7  | -80.9 | 155.8 | 103.7 | 106.9 | 107.6 | 101.0 | 155.8           |
| ON PEAK ENERGY          | GWH   | 77.6   | 104.1  | 137.3  | 135.6  | 109.2   | 62.6   | -20.7 | 32.6  | 14.5  | 15.9  | 16.1  | 13.7  | 698.3           |
| CAPACITY FACTOR ON PK   | %     | 82.8%  | 104.0% | 136.0% | 136.6% | 137.1%  | 137.4% | 82.9% | 65.5% | 45.3% | 46.7% | 47.1% | 43.3% | 119.4%          |
| OFF PEAK CAPACITY       | MW    | 73.9   | 192.2  | 184.5  | 179.2  | 12.7    | -33.3  | -80.9 | 111.8 | 103.7 | 106.9 | 107.6 | 101.0 | 111.8           |
| OFF PEAK ENERGY         | GWH   | 28.6   | 98.0   | 132.8  | 126.1  | 60.0    | 8.0    | -32.3 | 18.5  | 14.6  | 16.4  | 16.7  | 13.5  | 500.8           |
| CAPACITY FACTOR OFF PK  | %     | 90.9%  | 123.9% | 163.4% | 165.5% | 1234.6% | -56.8% | 97.1% | 38.9% | 34.1% | 36.1% | 36.5% | 32.4% | 89.5%           |
| <b>MARKETABLE</b>       |       |        |        |        |        |         |        |       |       |       |       |       |       |                 |
| SUMMER CAPACITY         | MW    | 101.0  |        |        |        |         |        |       |       |       |       |       |       |                 |
| ANNUAL ENERGY           | GWH   | 1199.1 |        |        |        |         |        |       |       |       |       |       |       |                 |
| ANNUAL CAPACITY FACTOR  | %     | 135.5% |        |        |        |         |        |       |       |       |       |       |       |                 |

**NOTES:**

|  |
|--|
| Data taken from USBR report titles: CENTRAL ARIZONA PROJECT<br>POWER MARKETING AND WATER SUPPLY STUDY - OCTOBER 1985 |
| COLORADO RIVER WATER DIVERTED is from TABLE 12 (page 26)   |
| TOTAL GWH AS PER USBR is from TABLE 13 (page 27)   |

Navajo monthly energy production is estimated by Salt River Power District based upon present unit maintenance schedules.

**EXPLANATION**

Note that there is proportionately more Navajo energy surplus to CAP than there is capacity. This results from two factors: first Navajo Capacity for one unit is always shown unavailable for all winter time months. Energy is shown on a historical basis which reflects that the unit maintenance does not last all month. The second factor is that Hayasu pumps are placed on in discrete 44 MW increments and Navajo capacity is reserved accordingly. Energy is associated only with the amount of water pumped in the month.

**Exhibit 1**  
**SURPLUS/SHORTAGE FLOWING POWER PROFILE (PRE-NEW WADDELL)**

| 1990 & ON WATER YEAR<br>TILL WADDELL PMP'NG<br>STARTS | LINE<br>UNITS | OCT   | NOV   | DEC   | JAN   | FEB   | MAR   | APR   | MAY   | JUN   | JUL   | AUG   | SEP   | TOTAL  |
|---|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|
| <b>TOTAL HOURS PER MO.</b>                            | 100.0%        | 744.0 | 720.0 | 744.0 | 744.0 | 672.0 | 744.0 | 720.0 | 744.0 | 720.0 | 744.0 | 720.0 | 720.0 | 8760.0 |
| ON PEAK HOURS   | 42.9%         | 318.9 | 308.6 | 318.9 | 318.9 | 288.0 | 318.9 | 308.6 | 318.9 | 308.6 | 318.9 | 308.6 | 308.6 | 3754.3 |
| OFF PEAK HOURS  | 57.1%         | 425.1 | 411.4 | 425.1 | 425.1 | 384.0 | 425.1 | 411.4 | 425.1 | 411.4 | 425.1 | 411.4 | 411.4 | 5005.7 |

| <b>TOT RESOURCES AVAIL</b> | AVAIL | 118.6% | 103.6% | 131.3% | 131.3% | 131.3% | 93.1% | 78.9% | 87.5% | 87.5% | 87.5% | 87.5% | 87.5% | 80.2% |
|----------------------------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| NAVAJO CAPACITY            | MW    | 364.5  | 364.5  | 364.5  | 364.5  | 364.5  | 364.5 | 364.5 | 364.5 | 364.5 | 364.5 | 364.5 | 364.5 | 346.8 |
| NAVAJO ENERGY              | GWH   | 321.5  | 271.8  | 356.0  | 356.0  | 321.5  | 252.6 | 206.7 | 356.0 | 344.5 | 356.0 | 356.0 | 344.5 | 384.3 |

| <b>HAYASU PUMPING PLT</b>  |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
|----------------------------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| COLOR RIVER WATER DIVERTED | KAF | 75.0   | 43.4   | 47.9   | 55.1   | 74.3   | 131.0  | 173.4  | 184.4  | 178.4  | 184.4  | 178.4  | 178.4  | 151.5  |
| CONVERSION FACTOR KWH/AF   |     | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 | 1045.5 |
| TOTAL ENERGY AT PLANT      | GWH | 73.4   | 45.4   | 50.1   | 57.6   | 77.7   | 137.0  | 186.5  | 192.8  | 192.9  | 192.9  | 192.9  | 192.9  | 158.4  |
| OFF PK ENERGY CAPABILITY   | GWH | 112.2  | 109.6  | 112.2  | 112.2  | 101.4  | 112.2  | 103.6  | 112.2  | 112.2  | 112.2  | 112.2  | 112.2  | 108.6  |
| OFF PEAK ENERGY            | GWH | 78.4   | 45.4   | 50.1   | 57.6   | 77.7   | 112.2  | 108.6  | 112.2  | 108.6  | 112.2  | 112.2  | 112.2  | 108.6  |
| HAYASU OFF PEAK AVG MW     | GWH | 184.4  | 110.3  | 117.8  | 135.5  | 202.3  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| UNITS REQUIRED OFF PEAK    | NUM | 5      | 3      | 3      | 4      | 5      | 6      | 6      | 6      | 6      | 6      | 6      | 6      | 6      |
| CAPACITY REQ'D OFFPEAK     | MW  | 220.0  | 132.0  | 132.0  | 176.0  | 220.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |
| ON PEAK ENERGY             | GWH | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 24.7   | 77.9   | 80.6   | 77.9   | 80.6   | 80.6   | 77.9   | 500.1  |
| HAYASU ON PEAK AVG MW      | MW  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 77.5   | 252.5  | 252.5  | 252.5  | 252.5  | 252.5  | 252.5  |        |
| UNITS REQ'D ON PEAK        | NUM | 0      | 0      | 0      | 0      | 0      | 2      | 6      | 6      | 6      | 6      | 6      | 6      |        |
| CAPACITY REQ'D ON PEAK     | MW  | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 88.0   | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  | 264.0  |        |
| <b>ALL OTHER PLANTS</b>    |     |        |        |        |        |        |        |        |        |        |        |        |        |        |
| TOTAL GWH AS PER USBR      | GWH | 135.8  | 79.5   | 87.0   | 100.3  | 133.1  | 233.6  | 317.5  | 331.0  | 317.3  | 325.1  | 324.1  | 318.9  | 270.3  |
| ENERGY ADJ. FOR LOSSES     |     | 139.7  | 91.8   | 89.5   | 103.2  | 136.9  | 240.3  | 326.7  | 340.5  | 326.5  | 334.5  | 333.4  | 328.1  | 278.1  |
| NET ENERGY OTHER PLANTS    | GWH | 61.3   | 36.4   | 39.4   | 45.6   | 59.3   | 103.4  | 140.1  | 147.8  | 139.9  | 141.7  | 140.7  | 141.6  | 119.7  |
| Avg 24-HR CAPACITY         | MW  | 82.4   | 50.6   | 53.0   | 61.3   | 88.2   | 138.9  | 194.6  | 198.6  | 194.4  | 190.4  | 189.1  | 196.6  |        |
| OFF PEAK ENERGY            | GWH | 35.0   | 20.8   | 22.5   | 26.0   | 33.9   | 59.1   | 80.1   | 84.4   | 80.0   | 81.0   | 80.4   | 80.9   | 68.4   |
| ON PEAK ENERGY             | GWH | 26.3   | 15.6   | 16.9   | 19.5   | 25.4   | 44.3   | 60.1   | 63.3   | 60.0   | 60.7   | 60.3   | 60.7   | 51.3   |

**Exhibit 1**  
**SURPLUS/SHORTAGE , NAG POWER PROFILE (PRE-HEV YADDELL)**

| <b>1990 &amp; ON WATER YEAR</b> | <b>LINE UNITS</b> | <b>OCT</b> | <b>NOV</b> | <b>DEC</b> | <b>JAN</b> | <b>FEB</b> | <b>MAR</b> | <b>APR</b> | <b>MAY</b> | <b>JUN</b> | <b>JUL</b> | <b>AUG</b> | <b>SEP</b> | <b>ANNUAL TOTAL</b> |
|---------------------------------|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------------------|
|                                 |                   |            |            |            |            |            |            |            |            |            |            |            |            |                     |
| ON PEAK CAPACITY                | MW 282.1          | 313.9      | 311.5      | 303.2      | 276.3      | 137.6      | -94.1      | 84.2       | 98.4       | 92.4       | 93.7       | 86.2       | 93.7       |                     |
| ON PEAK ENERGY                  | GWH 111.5         | 100.9      | 135.7      | 133.0      | 112.4      | 39.2       | -49.4      | 8.7        | 9.3        | 11.3       | 11.7       | 9.1        | 633.9      |                     |
| CAPACITY FACTOR ON PK           | \$ 124.0%         | 104.1%     | 136.6%     | 137.6%     | 141.2%     | 89.4%      | 170.0%     | 32.4%      | 35.8%      | 38.4%      | 39.3%      | 34.1%      | 180.1%     |                     |
| OFF PEAK CAPACITY               | MW 62.1           | 181.9      | 179.5      | 127.2      | 56.3       | -38.4      | -94.1      | 84.2       | 98.4       | 92.4       | 93.7       | 86.2       | 93.7       |                     |
| OFF PEAK ENERGY                 | GWH 70.3          | 89.1       | 130.8      | 119.8      | 72.2       | -27.0      | -70.6      | 6.8        | 8.3        | 10.2       | 10.8       | 7.3        | 423.0      |                     |
| CAPACITY FACTOR OFF PK          | \$ 266.2%         | 119.1%     | 171.4%     | 221.4%     | 333.7%     | 165.0%     | 192.2%     | 19.9%      | 22.7%      | 26.0%      | 27.1%      | 20.7%      | 91.2%      |                     |
| <hr/>                           |                   |            |            |            |            |            |            |            |            |            |            |            |            |                     |
| <b>MARKETABLE</b>               |                   |            |            |            |            |            |            |            |            |            |            |            |            |                     |
| SUMMER CAPACITY                 | MW 86.159         |            |            |            |            |            |            |            |            |            |            |            |            |                     |
| ANNUAL ENERGY                   | GWH 1061.9        |            |            |            |            |            |            |            |            |            |            |            |            |                     |
| ANNUAL CAPACITY FACTOR          | \$ 140.7%         |            |            |            |            |            |            |            |            |            |            |            |            |                     |

**NOTES:**

Data taken from USBR report titled: CENTRAL ARIZONA PROJECT  
 POWER MARKETING AND WATER SUPPLY STUDY - OCTOBER 1985

COLORADO RIVER WATER DIVERTED is from TABLE 12 (page 26)  
 TOTAL GWH AS PER USBR is from TABLE 13 (page 27)

Navajo monthly energy production is estimated by Salt River Power District based upon present unit maintenance schedules.

**EXPLANATION**

Note that there is proportionately more Navajo energy surplus to CAP than there is capacity. This results from two factors: first Navajo Capacity for one unit is always shown unavailable for all winter time maintenance months. Energy is shown on a historical basis which reflects that the unit maintenance does not last all month. The second factor is that Havasu pumps are placed on in discrete 44 MW increments and Navajo capacity is reserved accordingly. Energy is associated only with the amount of water pumped in the month.

JOE BABBITT  
GOVERNOR



OFFICE OF THE GOVERNOR  
STATE HOUSE  
PHOENIX, ARIZONA 85007

IN REPLY  
REFER TO:

March 12, 1986

The Honorable Donald Hodel  
Secretary of the Interior  
Department of the Interior  
Interior Building  
"C" Street, N.W.  
Washington, D.C. 20240

Dear Secretary Hodel:

Representatives of the Arizona Department of Water Resources, Bureau of Reclamation, Western Area Power Administration, Central Arizona Water Conservation District along with all affected entities in Arizona have been diligently pursuing the development of an Interim Navajo Power Marketing Plan as authorized by Section 107 of the Hoover Power Plant Act of 1984. This group has developed the attached interim plan in order to expedite the marketing process prior to the expiration of existing Navajo layoff contracts.

I am pleased to provide my concurrence to this interim plan as required by Section 107(c) of the Act. It is my understanding and expectation that the Secretary of Energy or his designee as well as the Board of Directors of the Central Arizona Water Conservation District will provide you their concurrence also.

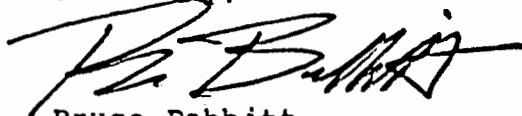
The process that developed this interim plan has been an excellent example of State and Federal cooperation and I am very appreciative of the effort and support of all.

The Honorable Donald Hodel  
March 12, 1986  
Page 2

Your approval of this plan will constitute just one more step in our cooperative process and we expect the same level of involvement as the group proceeds to develop a long range plan for post New Waddell conditions.

Thank you for your consideration.

Sincerely,

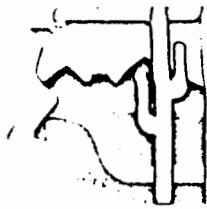


Bruce Babbitt  
Governor

BB:dps

Enclosure

cc: Robert Broadbent  
Arizona Congressional Delegation



# Central Arizona Water Conservation District

23636 NORTH 7TH STREET  
PHOENIX, ARIZONA 85024  
(602) 870-2333

March 13, 1986

Honorable Donald Hodel  
Secretary of the Interior  
Department of the Interior  
Washington, DC 20240

Dear Mr. Secretary:

On March 6, 1986, the Board of Directors of the Central Arizona Water Conservation District approved a proposed interim marketing plan for surplus power and energy from the United States' entitlement to output of the Navajo Generating Station. The District's understanding is that the proposal is now before you for adoption pursuant to Section 107 of the Hoover Power Plant Act of 1984. As we worked closely with your representatives in developing the plan, the District considers that the consultation requirement relating to us has been satisfied and now urge you to adopt the proposal.

Sincerely,

*Thomas C Clark*

Thomas C. Clark  
General Manager

TCC/mj



Department Of Energy

Western Area Power Administration  
P.O. Box 3402  
Golden, Colorado 80401

MAR 12 1986

Honorable Donald Paul Hodel  
Secretary of the Interior  
Washington, DC 20240

Dear Mr. Secretary:

The Western Area Power Administration has been working with representatives of the Bureau of Reclamation, the State of Arizona, the Central Arizona Water Conservation District, and various utilities in the State of Arizona to develop a power marketing plan for that power which is surplus to Central Arizona Project needs. Development of this plan is required by section 107(c) of the Hoover Power Plant Act of 1984. While this process is ongoing, it has become apparent that an interim plan is necessary to market Navajo surplus prior to completion of the long-range plan envisioned in section 107(c) of the Act. The enclosed Navajo Interim Power Marketing Plan is the product of efforts by the aforementioned entities. I concur in the substance of this interim plan.

Sincerely,

*W.H. Clagett*

William H. Clagett  
Administrator

Enclosure

MAILING LIST  
GROUP PARTICIPATING IN DEVELOPING  
NAVAJO POWER MARKETING PLAN

CAWCD

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519 W. LONE CACTUS  
PHOENIX, AZ 85027

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FT. COLLINS, CO 85025

AZ DEPARTMENT OF WATER RESOURCES

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99 E. VIRGINIA AVENUE  
PHOENIX, AZ 85004

BOB OLSON  
RESOURCE MANAGEMENT INTERNATIONAL  
1010 HURLEY WAY, #500  
SACRAMENTO, CA 95825

WESTERN AREA POWER AUTHORITY

TOM HINE  
P.O. Box 200, 1660 NEVADA HIGHWAY  
BOULDER CITY, NV 89005

TOM CARTER  
(SAME AS ABOVE)

MAILING LIST

PARTICIPANTS IN DEVELOPING NAVAJO POWER MARKETING PLAN

PAGE 2

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OPERATIONS DIVISION  
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ARIZONA POWER AUTHORITY

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