

**CITY COUNCIL MEETING**

**November 4, 1981**

CITY COUNCIL  
ELECTS NOT TO  
PARTICIPATE IN  
HARRY ALLEN  
PROJECT WITH  
NCPA

City Manager Graves apprised the Council that at its last meeting the Commission of the Northern California Power Agency voted to participate in the first phase of the Harry Allen Project being developed by Nevada Power Co. in southern Nevada.

Harry Allen is a 2000 MW coal-fired generating plant estimated to cost \$3.8 billion in 1985 dollars. The project will be composed of our 500 MW units, the first unit presently planned to begin commercial operation in 1986. Published estimate of cost is 85.5 mills/KWH in 1990 dollars. While this price appears very reasonable for 1990, Utility Director Curry has analyzed the report and believes this cost will be exceeded considerably.

According to the studies by R. W. Beck, Lodi would be capable of using 5.1 MW of base load power out of this project; however, these studies were based on load growth estimates provided by Lodi prior to the Green Belt Initiative, and prior to the announcement of the 12 MW allocation of CVP power by W.A.P.A. The participation of Lodi in the current phase of studies on the basis of 5.1 MW will be \$13,130.00; however the Commission's action was to levy

-6-

an assessment of \$27,090.00 to provide funds for participation, apparently anticipating costs beyond the first defined study.

On motion of Councilman Pinkerton, Hughes second, Council concurred that it did not wish to participate in the Harry Allen Project.

# COUNCIL COMMUNICATION

TO THE CITY COUNCIL FROM THE CITY MANAGER'S OFFICE	DATE November 4, 1981	NO.
SUBJECT Harry Allen Project		

At its last meeting the Commission of the Northern California Power Agency voted to participate in the first phase of the Harry Allen Project being developed by Nevada Power Company in Southern Nevada.

Harry Allen is a 2000 MW coal-fired generating plant estimated to cost \$3.8 billion in 1985 dollars. The project will be composed of four 500 MW units, the first unit presently planned to begin commercial operation in 1986. Published estimates of cost is 85.5 mills/KWH in 1990 dollars. While this price appears very reasonable for 1990, our Utility Director has analysed the reports and believes this cost will be exceeded considerably.

Mr. Curry is preparing a more detailed report for the November 3, 1981 shirtsleeve session.

According to the studies by R.W. Beck, Lodi would be capable of using 5.1 MW of base load power out of this project. However, these studies were based on load growth estimates provided by Lodi prior to the Green Belt Initiative, and prior to the announcement of the 12 MW allocation of CVP power by W.A.P.A. Mr. Curry's analysis will also deal with our load projections.

The participation of Lodi in the current phase of studies on the basis of 5.1 MW will be \$13,130.00. However, the Commission's action was to levy an assessment of \$27,090.00 to provide funds for participation, apparently anticipating costs beyond the first defined study.

The enclosed copies extracted from the R.W. Beck study provide some basic description of the project.

## OVERVIEW OF THE HARRY ALLEN PROJECT

This document and appendixes draws together all the significant available information on the Harry Allen Project supplied either by Nevada Power Company (Nevada), or Sacramento Municipal Utility District (SMUD), or produced by R. W. Beck and Associates. No attempt is or has been made to verify or attest to Nevada Power Company's or SMUD's supplied information.

A Nevada Power Company sponsored project estimated to deliver power at 85.5 mills per kWh in 1990 dollars. (Refer to Sections 1 and 13 in Appendix)

Harry Allen is a 2,000 MW coal-fired generating station located 20 miles northeast of Las Vegas, Nevada. In 1990, the first full year of project operation, the estimated cost of energy delivered to NCPA members will be 85.5 mills per kilowatthour. The project includes two transmission lines to El Dorado Station in southern Nevada, one transmission line from east central Nevada (White Pine Station) to central California, and participation in a Nevada transmission system from Midpoint Station in southern Idaho to the Harry Allen station. The project also includes 183 miles of coal slurry pipeline from Alton Coal Field in Utah.

Based on Nevada's estimates, the Plant is to cost 3.8 billion dollars in 1985 dollars. (Refer to Sections 1 and 2 in Appendix)

The project cost estimates originally supplied by Nevada were developed by Bechtel Corporation for January 1, 1979, and escalated to January 1, 1981. A new project estimate supplied by Bechtel for July 1, 1981 is the estimate on which all costs are based. Bechtel Corporation includes with these costs several disclaimers: (1) not site specific, (2) 9 percent escalation used to arrive at 1985 dollar estimates, (3) does not include cost of land, water or rights, (4) without spare parts, (5) without coal handling costs and (6) without AFUDC. After adding AFUDC and a cost for regulatory approval, the total project cost is estimated to be 3.3 billion dollars or 1,650 dollars per kilowatt in 1985 dollars.

Possible project participants are still evaluating participation. (Refer to Sections 3, 5, 6 and 10 in Appendix)

Both central and southern California entities are evaluating project participation. Based on preliminary assessments of power needs, the levels of participation are shown below. Nevada's desired levels of financial commitments are also shown.

Preliminary Generation Shares and Financing - Megawatts

	Initial Generation Entitlement Share - MW	Average Megawatts Financed By		
		SCPPA	CCPA	NPC
Southern California Public Power Authority (SCPPA)	620	620		
Central California Power Agency (CCPA)	660		660	
Western Area Power Admin. - Sacramento (Western)	200		200	
City of St. George, Utah (St. George)	80			
Valley Electric Association, Nevada (Valley)	40			
Overton Power District No. 5, Nevada (Overton)	20	87	93	
Lincoln County Power District No. 1, Nevada (Lincoln)	20			
City of Boulder City, Nevada (Boulder City)	20			
Nevada Power Company (NPC)	340	223	37	80
	2000	930	990	80

Note: Western's purchase of 200 MW will terminate at the end of year 2004 and will be replaced by NPC purchase beginning year 2005.

Fuel is to be supplied with a 183 mile long slurry pipeline from a strip mine in

Southern Utah at a cost of \$51.91 per ton excluding water cost. (Refer to Section

4 in Appendix)

Nevada directed the Morrison-Knudson Firm to perform a market search for coal supplies for the proposed plant. Their research evaluated sources from Wyoming, Utah, Colorado, and New Mexico and the necessary transportation system. The Alton Coal Field was determined to be the economic choice. This field, located near Kanab, Utah, of 28,000 acres includes 350,000,000 tons of coal of which approximately 212,000,000 tons can be surface mined. Total available tonnage is more than adequate for the life of the proposed plant at an average 9486 Btu per pound for coal delivered to the plant site. The mining leases are owned by Utah International and Nevada and it is expected that Utah International will operate the mine. Two delivery systems were evaluated to transport the Alton Coal to the plant. The least expensive system over the life of the project is a slurry pipeline 183 miles long and 22 inches in diameter. This line is capable of delivering 9.1 million tons of coal per year. The plant requires approximately 8.5 million tons per year. The owners of the pipeline are as yet undetermined. An alternate delivery system is a railroad spur to the mine from the existing Union Pacific East-West line. Several problem areas are mentioned in the Morrison-Knudson study. The main problem is availability of water for the slurry line. The water is not yet under contract. Additional drilling is also recommended to prove some of the mine and to determine the fault zones. A final note is added that the proposed coal mine development schedule will be difficult to meet. Estimated fuel costs were developed including coal slurry preparation cost, but without the cost of water. This estimated cost in 1986 dollars is \$51.91 per ton. However, the coal contract has not been negotiated.

A new transmission system will need to be constructed to transmit the energy.

(Refer to Section 11 in Appendix)

The project includes two transmission systems. One to the south to interconnect into the system in southern Nevada. This southern Nevada system appears to have interim capacity available after some new construction is completed by Southern California Edison and Los Angeles Department of Water and Power for the White Pine and Ivanpah plants. A permanent solution requires an alternate transmission path. Such a new path has been speculated but not studied. Current proposals are for a new line or lines to be built from the White Pine Generating Station located in east central Nevada to a new station in central California. Several voltage levels have been considered and preliminary arrangements are being discussed to study and develop a viable system. Such a delivery system is necessary to allow plant participation, but at this point no firm transmission path exists. Obviously any transmission from the east will cross the Sierras and as yet the environmental studies have not been started nor have the specific routes been identified. However, other projects and agencies have produced preliminary studies. These projects and their routes are (1) Pacific Gas and Electric's Zebra Station located in the northeast corner of Nevada with a transmission line to Davis, California routed north of Lake Tahoe, (2) Sacramento Municipal Utilities District SOFAR Project with routes located south of Lake Tahoe, (3) Pacific Gas and Electric's Alberta Coal Project with a route from Southern Idaho to Zebra Station and on to northern California.

Most Regulatory Approvals have been received. (Refer to Sections 12 and 13 in Appendix)

All plant air quality permits, federal and state regulatory permission and coal mining permits have been received. The mining approval requires that part of the strippable portion of the mine must be mined underground. However, this is being litigated. The southern transmission lines from McCullough or El Dorado have had route approvals, but the proposed Southern California Edison Ivanpah plant is using the same route and the permits were issued in SCE's name. The construction permits and regulatory approvals of the participation contracts are still required.

Based on the proposed project Participation Agreement, the participants assume all project risk without any project control. (Refer to Section 8 and 9 in Appendix)

Nevada has not supplied a participation agreement but maintains that the White Pine Agreements represent the model for the Harry Allen Agreements. R. W. Beck and Associates was instructed to review these agreements, and identify their key elements. The important elements are the acceptance of all project risk, the lack of project control, and the recapture of 50 percent of the plant. Nevada's proposed recapture algorithm is shown below:

Nevada Proposed Recapture Algorithm

<u>Year</u>	<u>Unit</u> <u>1</u>	<u>Unit</u> <u>2</u>	<u>Unit</u> <u>3</u>	<u>Unit</u> <u>4</u>	<u>Unit</u>
2018	10				10
19	25	10			35
2020	50	25	10		85
21	90	50	25	10	175
22		90	50	25	165
23			90	50	140
24				90	90

Notes:

- 1) To comply with NRS 704.892, 1000 MW of Allen capacity must become available to Nevada. The amount of recapture by NPC from SCPPA and CCPA is 360 MW (1000 - 340 - 200 - 100) or 90 MW per unit which could be accomplished as shown below.
- 2) Recapture starts in each unit's 32nd year of operation.

In order to keep the project on schedule Nevada has proposed an interim agreement for a total cost of \$2.65 million. (Refer to Section 14 in Appendix)

Nevada has proposed an interim agreement which expires January 31, 1982, or when the Participation Agreements are executed, whichever ever occurs first. By executing the agreement, the required additional planning, design, and permit work can continue allowing the project to stay on schedule. This effort is estimated to cost \$2.5 million which includes the carrying charges for Nevada's past \$11 million expenditures. Appended to the interim agreement is a draft set of principles for the Harry Allen Participation Agreements. Both of these documents have been received and commented on by the consultant.

A cooperative effort is being pursued between several central California entities. (Refer to Section 7 in Appendix)

A cooperative effort between NCPA, SMUD, Turlock Irrigation District, and Modesto Irrigation District is being pursued to share information, develop a common financing plan, transmission plan, and negotiating stance. A discussion agenda has been drafted and an initial meeting has been held. A Letter of Cooperation will be issued and a steering committee is to be established.

CITY COUNCIL

JAMES A. McCARTY, Mayor  
ROBERT G. MURPHY, Mayor Pro Tem  
RICHARD L. HUGHES  
WALTER KATNICH  
JAMES W. PINKERTON, Jr

CITY OF LODI

CITY HALL, 221 WEST PINE STREET  
POST OFFICE BOX 320  
LODI, CALIFORNIA 95241  
(209) 334-5634

HENRY A. GLAVES, Jr.  
City Manager

ALICE M. REIMCHE  
City Clerk

RONALD M. STEIN  
City Attorney

November 6, 1981

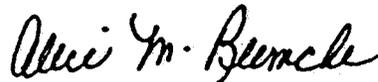
Gail Sipple  
Northern California Power Agency  
770 Kiely Boulevard  
Santa Clara, CA 95051

Dear Gail:

This letter will confirm action taken by the City Council of the City of Lodi in its November 4, 1981 Council Meeting, whereby, the Council by motion action voted not to participate in the Harry Allen Project with NCPA.

Should you have any questions regarding this action of the Council, please do not hesitate to call this office.

Very truly yours,



Alice M. Reimche  
City Clerk

AR:dg

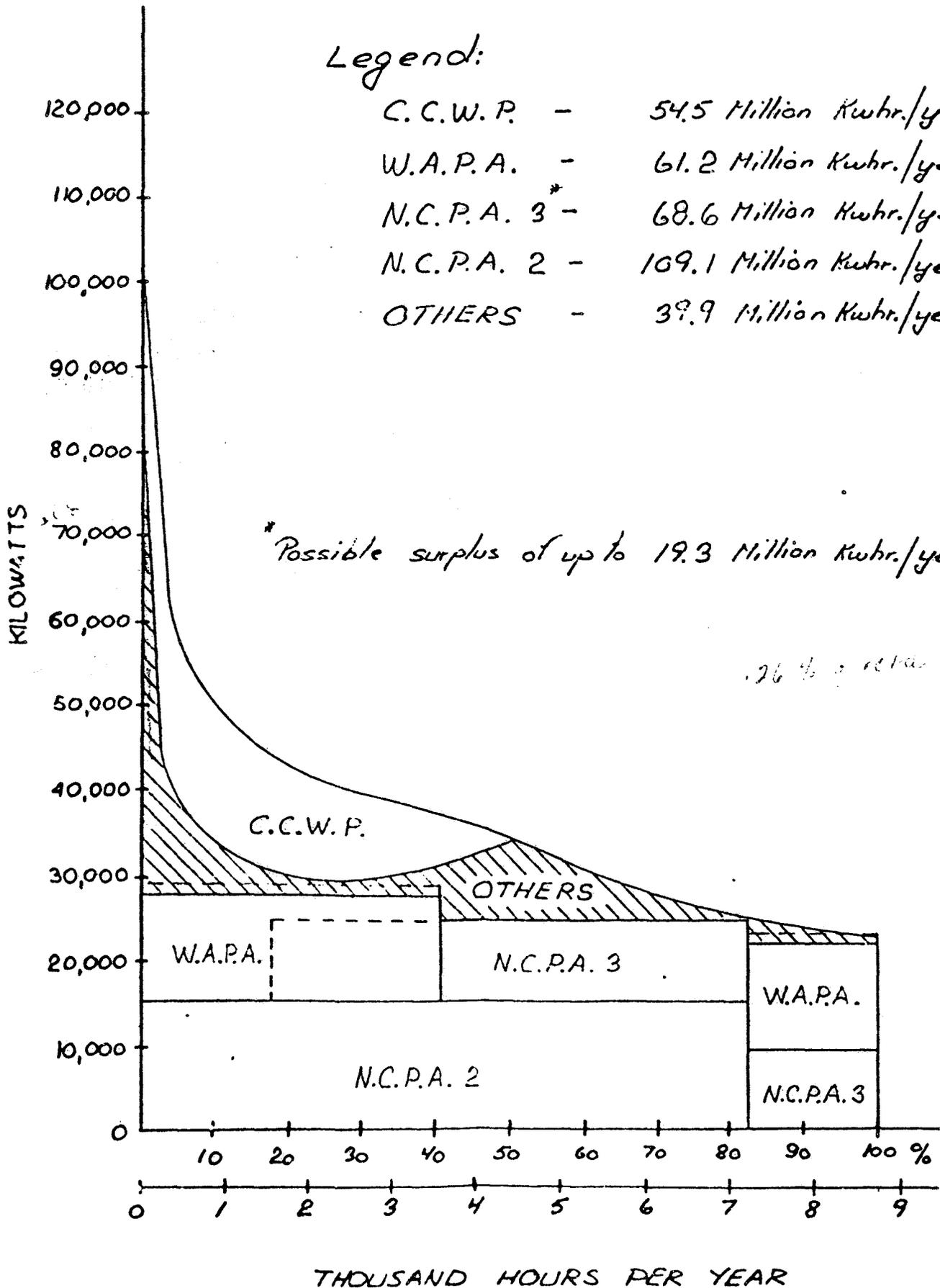
N. P. Elawp

# PROJECTED LOAD/RESOURCE DURATION CURVE - 1991

## Legend:

C.C.W.P.	-	54.5 Million Kwhr./year
W.A.P.A.	-	61.2 Million Kwhr./year
N.C.P.A. 3*	-	68.6 Million Kwhr./year
N.C.P.A. 2	-	109.1 Million Kwhr./year
OTHERS	-	39.9 Million Kwhr./year

\* Possible surplus of up to 19.3 Million Kwhr./year



# PROJECTED LOAD/RESOURCE DURATION CURVE - 1997

## Legend:

C.C.W.P. - 54.5 Million Kwhr./year

HARRY ALLEN - 35.0 Million Kwhr./year

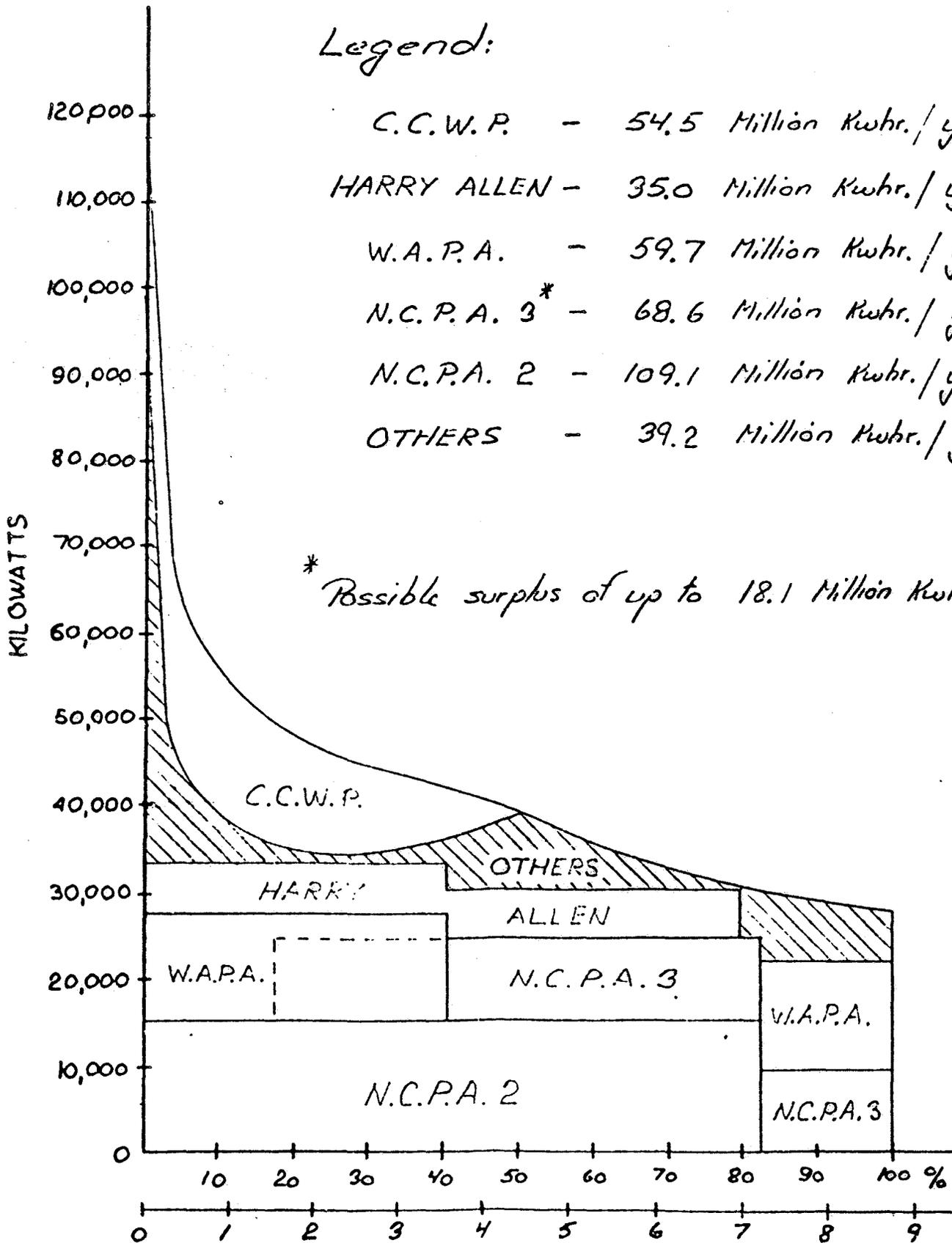
W.A.P.A. - 59.7 Million Kwhr./year

N.C.P.A. 3\* - 68.6 Million Kwhr./year

N.C.P.A. 2 - 109.1 Million Kwhr./year

OTHERS - 39.2 Million Kwhr./year.

\* Possible surplus of up to 18.1 Million Kwhr./year



THOUSAND HOURS PER YEAR