ENERGY CONSUMPTION AND COST DATA

IHS AREA :	OKLAHOMA CITY	REPORTED YEAR:	FY 1998
PREPARED BY:	KEN McKENZIE	TITLE:	DEP. DIRECTOR
PHONE NUMBER:	405 951 3857	DATE SUBMITTED	2 NOV. 1998

Buildings/Facilities (Claremore & Tahlequah only)

Energy Type	Reporting Units	Annual Consumption	Annual Cost ($)	UnitCost($)	Total BTU
Electricity	KWH	19,266,215 ~~9,577,420~~	$493,180	$.05 / kWH	
Fuel Oil	Thous. Gal.	approx.- 3	$3,000	$1 / gal	
Natural Gas	Thous.Cu.Ft	35,447 Mcf	$125,230	$ 3.5 / Mcf	
lpg-Propane	Thous. Gal.	0	0	/gal	0
Coal	S. Ton	0	0	/S.ton	0
Purch. Steam	MMBtu	0	0	/MMBtu	0
Other	MMBtu	0	0	/MMBtu	0
TOTALS	---	---	$ 618,672	---	

Gross Square Feet	Btu / Gross Square Feet	$ / Gross Square Feet
253,972		$2.43

Complete data for the remaining service units (Anadarko, Clinton, Lawton and Pawnee) in the Oklahoma City Area will be forwarded to HQ as soon as possible.

Ken McKenzie 2 Nov 98
For Area Facilities Engineer Date

Ward Conaway 11/2/98
Area Associate Director, OEHE Date

A. ANNUAL ENERGY MANAGEMENT DATA REPORT

I. Energy Consumption & Cost Data - Refer to attached table above

II. Energy Conservation Program Summary – Direct Agency Expenditures are slightly higher than in FY97. Our Area is pursuing ESPC's and we have attended ESPC training. There are no utility incentives obtained in FY98.

B. ENERGY CONSUMPTION REDUCTION GOALS

We have made progress overall towards meeting the NECPA requirements. We intend to do what we can from a design, construction, and operational perspective to meet the 20% reduction requirement per gross square meter by the year 2000 and the EO 12902 goal of a 30% reduction by the year 2005.

C. ENERGY SAVINGS PERFORMANCE CONTRACTS

An ESPC is being pursued for the Creek Nation via a Performance Agreement for Comfort from Trane (PACT) Program. A letter to proceed, which is not a financial commitment, has been authorized by the Muscogee (Creek) Nation Health Systems Board. A preliminary facility analysis was conducted and potential energy conservation measures (ECM's) were identified for The Creek Nation Community Hospital in Okemah. These ECM's include operational and maintenance savings, lighting upgrades, a new air cooled chiller, new air handling units, and a new HVAC control system. Health clinics in Sapulpa, Eufaula, and Okmulgee are also being analyzed for ECM opportunities such as monitoring and controlling their HVAC control systems from the hospital in Okemah. Tribal and Area Office staff has worked closely together by providing utility bills, drawings, clinic operating characteristics, and capital budget information to the Trane Company. The next steps include : a Letter of Commitment, a Comprehensive Engineering Study, Presentation of Final PACT Proposal, Project Approval, Construction, and Acceptance.

A Super ESPC is being pursued through the Department of Energy (DOE) for the Oklahoma City Area I.H.S. The service units we are concentrating on are located in Claremore, Tahlequah and Lawton. We met with a DOE contracting officer's representative (COR) and a National Renewable Energy Laboratory (NREL) representative at Tahlequah to preview potential projects. We met with a DOE COR at Claremore to preview potential projects also. We believe we have enough ECM's with combined short and long term paybacks to make viable projects at both locations. We also believe we have a viable project at Lawton. Our Area Office has a signed memorandum of understanding (MOU) with DOE that will permit us to access their contract for their Central Region. The six energy service companies (ESCO's) that were awarded indefinite delivery indefinite quantity (IDIQ) contracts for the DOE central region are DukeSolutions, Energy Pacific, ERI, Honeywell, Johnson Controls, and Noresco. DukeSolutions, Energy Pacific, and ERI have traveled to Oklahoma City and met with us to discuss the capabilties of their companies. Our technical and procurement staff have recently attended the DOE Super ESPC Workshop to learn the process for writing delivery orders against the DOE contract. The 14 technology categories which are eligible under the contract are : Boiler Improvements, Chiller Improvements Building Automation Systems/Energy Management Control Systems, HVAC, Lighting, Envelope Modifications, Steam and Hot/Chilled Water Piping, Electric Motors and Drives, Refrigeration, Electrical and Cogeneration Systems, Renewable Energy, Electric Distribution, Water and Sewer Conservation, and Rate Reduction/Auditing Services. We believe we have projects in most of these technology categories. We have consulted with a spokesman

for The Cherokee Nation to discuss a future tribal financial obligation in the event of a compact of the Claremore and Tahlequah Service Units. We have obtained their concurrence on proceeding with the Super ESPC. We are also obtaining an opinion from our Office of General Council on the restrictions of our agency entering into a long term financial obligation or transferring such an obligation to a tribe.

The Dallas Inter-Tribal Center and the American Indian Center in Euless, Texas have been informed that they could pursue an ESPC directly with one of the six ESCO's or another ESCO of their choosing.

D. ENERGY EFFICIENCY AND WATER CONSERVATION PROJECT FUNDING

No new information to report.

E. ENERGY AND WATER SURVEYS AND AUDITS

No new information to report.

F. IMPLEMENTATION OF ENERGY EFFICIENCY AND WATER CONSERVATION PROJECTS

Projects completed in FY98 are as follows :

1. Replace 50 HP motor on AHU#5 - A standard efficiency 50 horsepower motor with inlet guide vanes was replaced with a 50 premium efficiency 50 horsepower motor with an Asea Brown Boveri adjustable speed drive. Estimated Payback (3.5 years)

2. Replace Parking Lot Lighting – 24 mercury vapor bulbs and magnetic ballasts were retrofitted with high pressure sodium bulbs and electronic ballasts at the Lawton Indian Hospital. Estimated Payback (6 years)

3. Replace Time Clock - A time clock that had failed was replaced so that air conditioning units could be shut off automatically instead of manually during unoccupied periods. Estimated Payback (2 years)

G. SOLAR AND OTHER RENEWABLE ENERGY

We hope to quickly revamp active solar panels that heat domestic water at the W.W. Hastings Indian Hospital in Tahlequah if we are able to proceed with the DOE Super ESPC.

H. MINIMIZATION OF PETROLEUM-BASED FUELS

No new information to report.

I. ENERGY EFFICIENT OPERATIONS AND MAINTENANCE PROCEDURES

Tiger Natural Gas completed an analysis of our FY97 natural gas consumption in an attempt to acquire a contract to supply us with non-tariff natural gas on the spot market. The Claremore

Indian Hospital was the only one that qualified for transportation of gas via this method because they met the minimum annual consumption requirement of 20,000 MMBTU's. This minimum annual consumption requirement applies to Oklahoma Natural Gas, Arkla-NorAM Energy & the Tahlequah Public Works Authority. This minimum consumption amount was not lowered by the regulatory authority in the first quarter of CY98. Tiger Natural Gas projects that they could save us $16,500 annually (a 15% savings) if we procured natural gas through them for Claremore instead of through our current local distribution company.

We were able to get this spot-market natural gas contract in place with Tiger Natural Gas in April of 1998 for Claremore. We are piggybacking on to an existing contract that Tiger Natural Gas has with the Department of Veteran's Affairs Utilities Management Program in Portland, Oregon. We have saved $944 from April through July of this year. We expect to realize the remainder of our projected savings during the coming winter months.

Tiger Natural Gas has proposed a "Telemetry Utilities Management EnerCom System" to us which they taut as the low cost telemetry alternative for today's business. The EnerCom System consists of a meter that is tied to a facility's existing meter. The meter can be solar powered, battery powered, electrically powered or a combination of two power sources. The EnerCom System relays energy data to a EnerView Host where data is arranged in a viewable format. Upon completion of data formatting, all information is then relayed to a software host for use by the client. This metering services program allows for daily/hourly meter reading, enhances accounts of actual consumption, allows you to plan your usage with production schedules and manage your tolerance levels daily. This program is available for all utility services including natural gas, electricity, and water. We will consider implementing this in FY99.

We may utilize the DOE Super ESPC rate reduction technology category to pursue acquiring expertise in the utility analysis arena to help us position our agency advantageously on the issue of end-user wheeling of electricity.

J. ENERGY EFFICIENCY IN NEW SPACE

No new information to report.

K. PERFORMANCE EVALUATIONS

No new information to report.

L. INCENTIVE AWARDS

No new information to report.

M. PROCUREMENT OF ENERGY EFFICIENT PRODUCTS

No new information to report.

N. ENERGY MANAGEMENT TRAINING

No new information to report.

O. ENVIRONMENTAL BENEFITS OF ENERGY MANAGEMENT ACTIVITIES

No new information to report.