Approved: March 8, 2005 Cal Deem Holmes

#### MINUTES OF THE HOUSE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairman Carl D. Holmes at 9:09 a.m. on January 25, 2005 in Room 231-N of the Capitol.

All members were present except: Representative Melody Miller - Excused

Representative Judy Showalter - Excused Representative Tom Sloan - Excused

Committee staff present: Mary Galligan, Legislative Research

Dennis Hodgins, Legislative Research Mary Torrence, Revisor of Statutes Jo Cook, Administrative Assistant

Conferees appearing before the committee: John Olsen, Westar Energy, Topeka, KS

Others attending: See Attached List

Chairman Holmes asked for bill introductions. <u>Representative Kuether moved to introduce a committee bill dealing with conservation and energy efficiency.</u> Representative Svaty seconded the motion. The motion <u>carried</u>. <u>Representative Krehbiel requested a committee bill be introduced that would put penalties in place for 'phishing' and internet abuse</u>. Representative Watkins seconded the motion. The motion carried.

Chairman Holmes announced to the committee that a tour of Wolf Creek Nuclear Power Plant was being planned for April 26. More information would be forthcoming.

Chairman Holmes welcomed John Olsen, Executive Director of Power Marketing for Westar Energy, to the committee. Mr. Olsen's presentation to the committee concerned long-term power supply in Kansas (Attachment 1). He detailed the company's generating capacity and generation portfolios. Mr. Olsen also spoke on the various obligations for providing electricity that occur at typical times throughout the year. Mr. Olsen responded to questions from the committee. Additionally, Doug Sterbenz, Senior Vice President, Generation and Marketing and Jim Ludwig, Vice President, Public Affairs, both of Westar Energy, Topeka, KS, responded to questions from the committee.

The meeting adjourned at 10:32 a.m.

The next meeting is a joint meeting with Senate Utilities on January 26, 2005 at 9:30 a.m.

#### HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: \_\_\_\_\_\_ January 25, 2005

NAME	REPRESENTING		
David Springs	Chrb		
John Oken	Wester Greigy		
DOUG STERBENZ	WESTAR FNERCY		
JAMES Lumia	WESTAR		
here Allsow	GOV'S OFFICE		
Zoch Coble	Intern Rep. Showelter		
Jeff Bottenberg	BoHenberg & Associ. +5		
LARRY BERG	MIDWEST ENERGY		
Kristina Hilboldt	Intern Rep. Watkins		
BRUCE GRAHAM	KEPC.		
Steve Miller	Sonflower		
TOM DAY	KCC		
Kissbelly Lencur	aquila		
1 HARK SCHREIBER	Wester Energy		
Sandia Braden	Theat Plains / KCPL		
Charles Senjamin	VS Serry Club		
White Dama	FS Gas Service		



# Long-Term Power Supply

Presentation to the Kansas House Utilities Committee

By

John Olsen

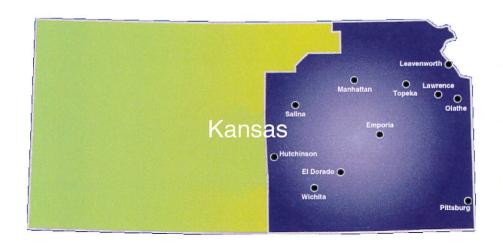
Executive Director, Power Marketing

January 25, 2005

## **Westar Utility Operations**

#### Kansas' largest electric provider

#### **Service Territory**



#### Key Operational Facts:

644,000 customers
6,000 MW of generation
20% Planning Reserve
Margin for 2004 (SPP
Requirement)

11,000 sq mile service territory

34,500 miles of T & D

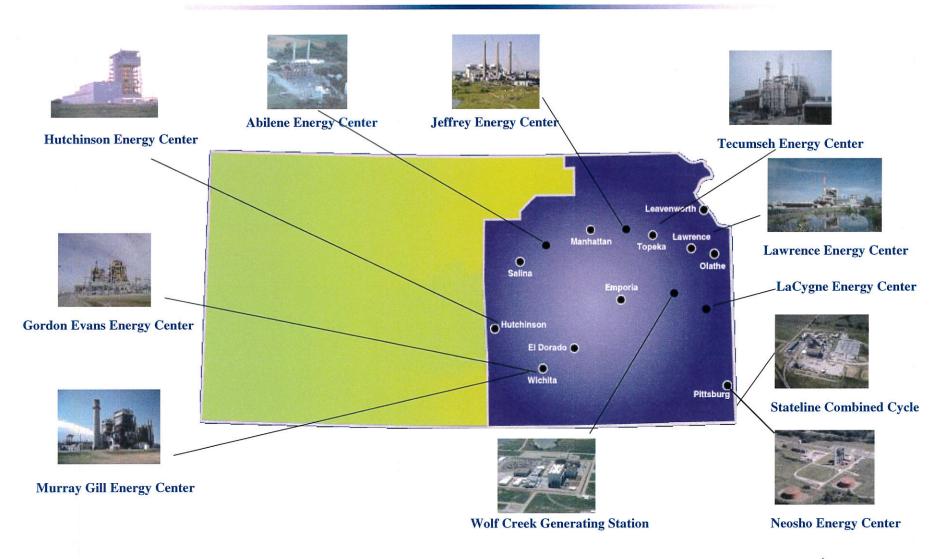
2,000 employees



#### 2

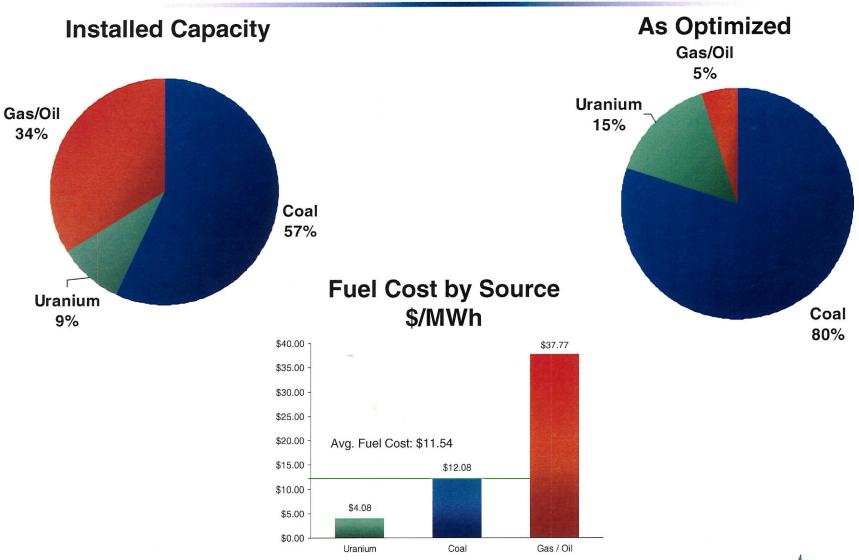
### Westar Energy's Generating Capacity

Coal Nuclear Gas/Oil Wind





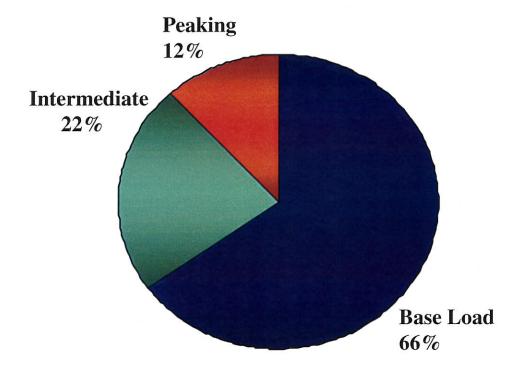
### **Competitive Low-Cost Generation Portfolio**





### Westar Energy's Capacity Profile

#### **Capacity (Nameplate)**

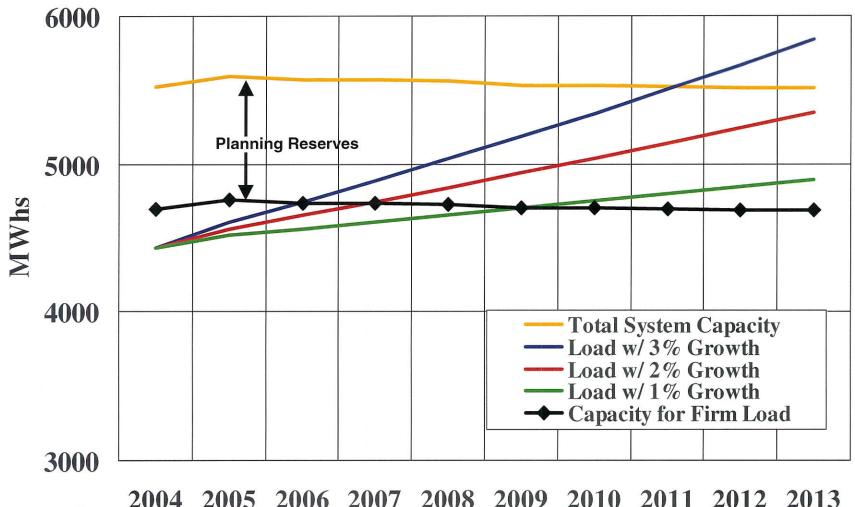


- Base Load Operates at a constant rate over a long period of time.
- Intermediate Operates occasionally to bridge the energy needs between Base Load and Peaking resources.
- Peaking Operates briefly during peak load times to meet the energy needs above the Intermediate resource and during emergency system conditions.



### **Load and Capability Forecast 2004 - 2013**

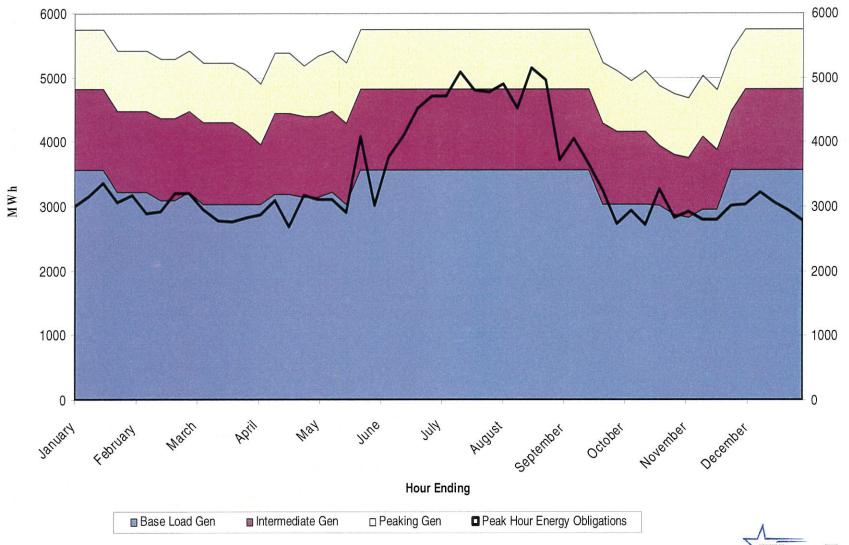




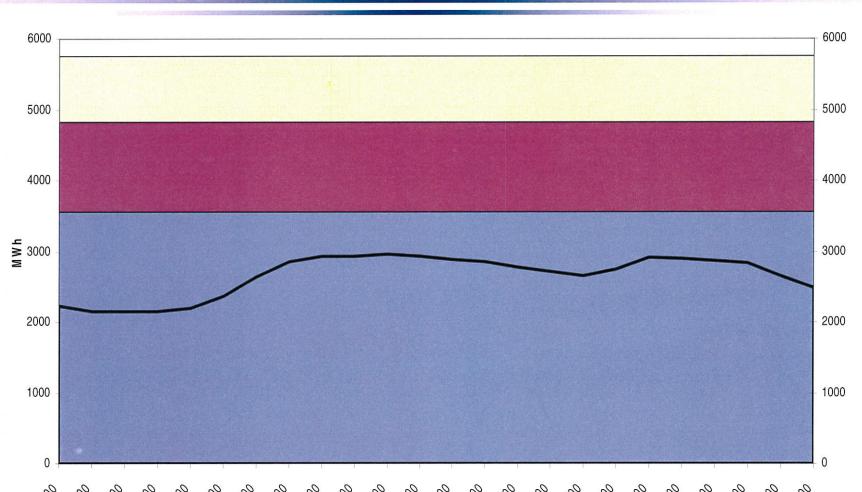
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013



### **Weekly Peak Obligation**



### **Typical Winter Day Obligation**



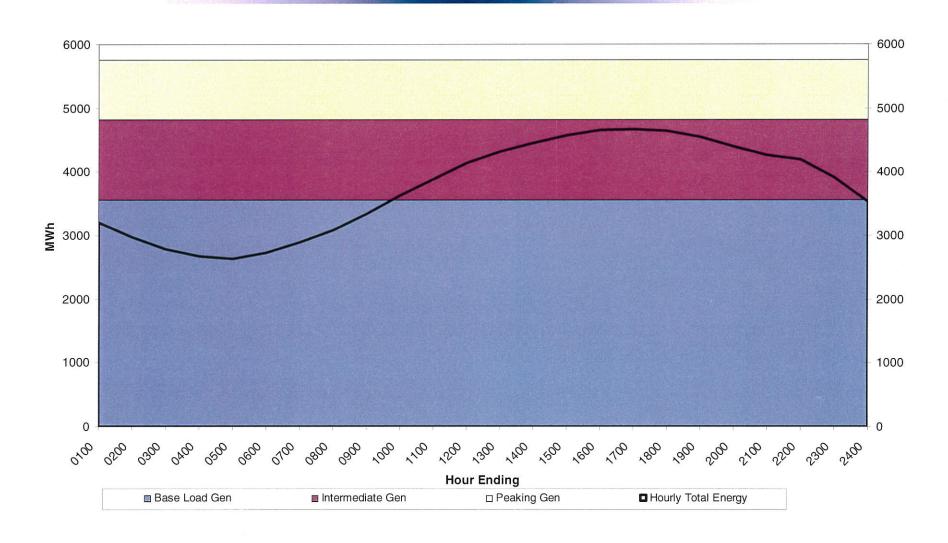
Hour Ending

■ Base Load Gen ■ Intermediate Gen □ Peaking Gen ■ Hourly Total Energy



#### **Typical Summer Day Obligation**

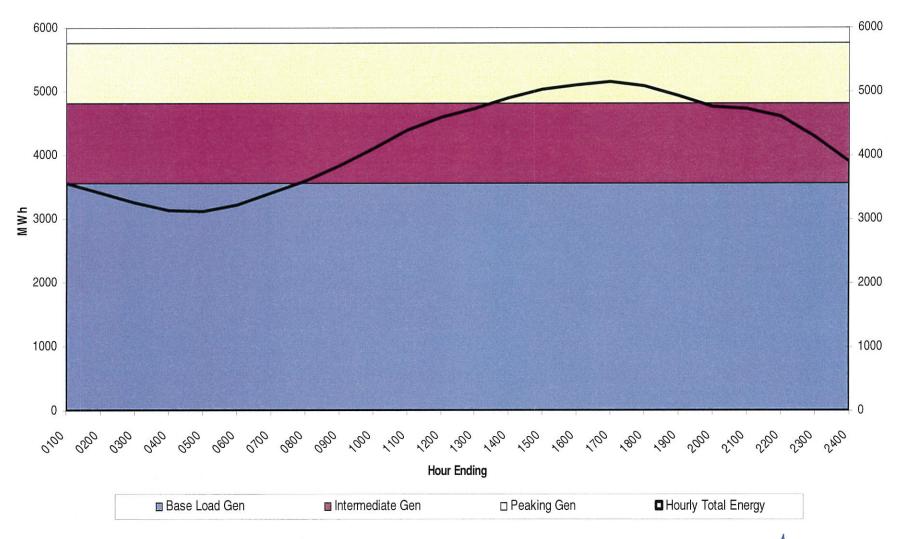






## Peak Day Obligation







# -

#### **New Plant Characteristics**

	55 MW Aero-CT (Peaking)	150 MW Combustion CT (Peaking)	500 MW CC (Intermediate)	600 MW Coal (Base Load)	Wind (????)
Capital Cost (\$/KW)	\$450	\$360	\$510	\$1,400	\$1,300
Heat Rate (Btu/kWh)	10,400	10,800	7,120	9,700	N/A
Variable O&M		40.00			45.00
(\$/MWh)	\$2.75	\$2.00	\$2.00	\$1.40	\$5.00
Fixed O&M	0				1 5
(\$/KW-year)	\$6.00	\$6.00	\$13.00	\$40.00	\$25.00
				1 1	
Capacity Factor	10%	10%	25%	80%	40%
Total Cost (\$/MWh)*	\$157.50	\$138.20	\$84.20	\$46.50	\$30.00

CT = Combustion Turbine

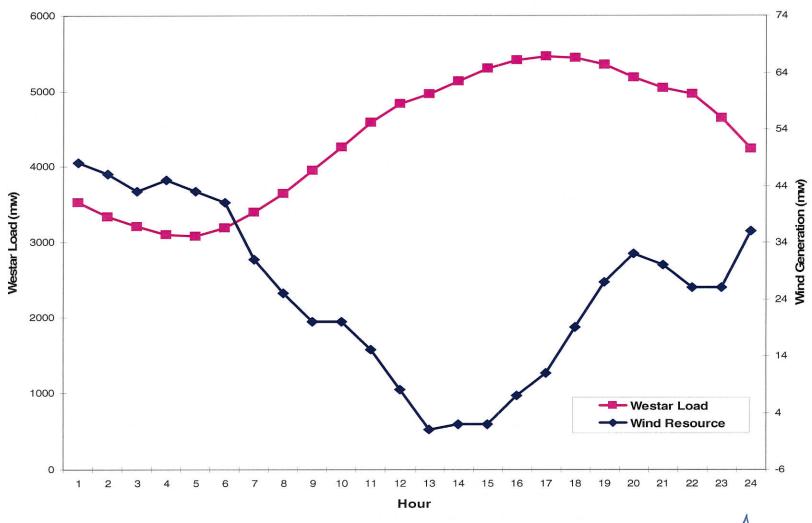
CC - Combined Cycle



<sup>\*</sup> Based on \$5.00/MMBtu Natural Gas Prices; \$0.75/MMBtu Coal Price

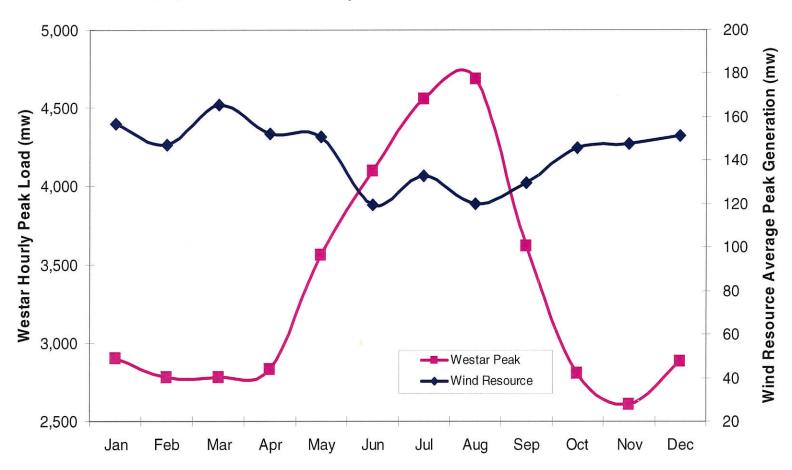
#### **Monthly Wind Energy Profile**

Westar Load vs. WFEC's Blue Canyon Windfarm (Oklahoma) generation for 8/02/2004



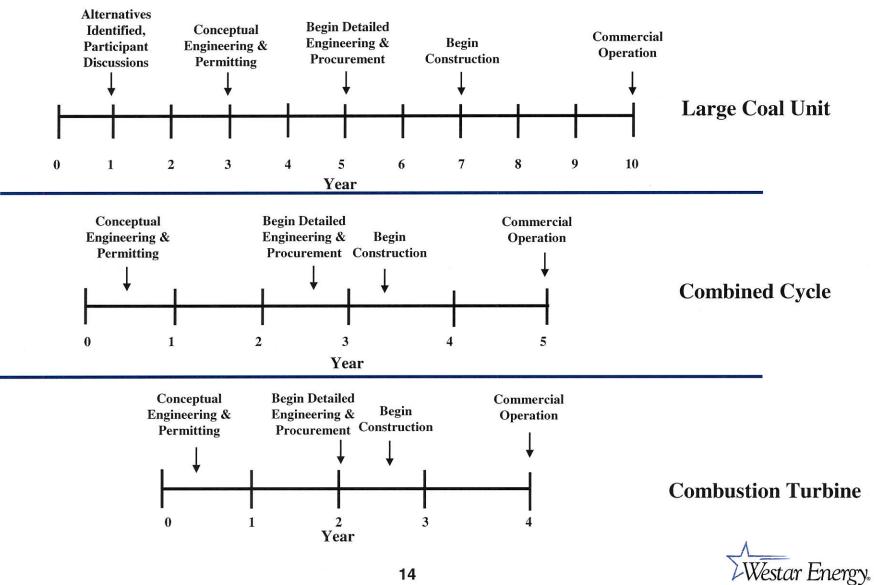
#### **Wind Resource Correlation with Summer Load**

#### Westar Control Area Load vs. Expected Peak Generation from 200-MW Wind Resource



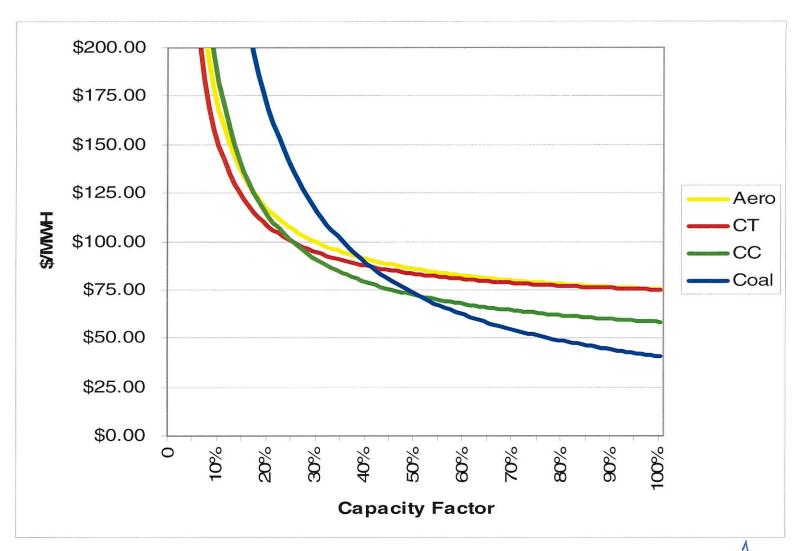


#### **Typical Construction Timelines**



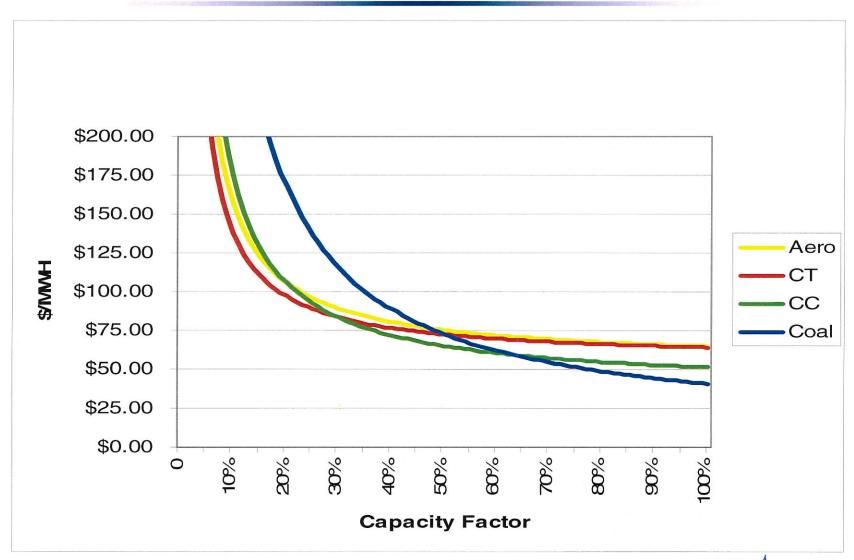
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#### **Unit Cost Comparisons – Gas @ \$6.00**





#### **Unit Cost Comparisons – Gas @ \$5.00**





# **Questions?**

