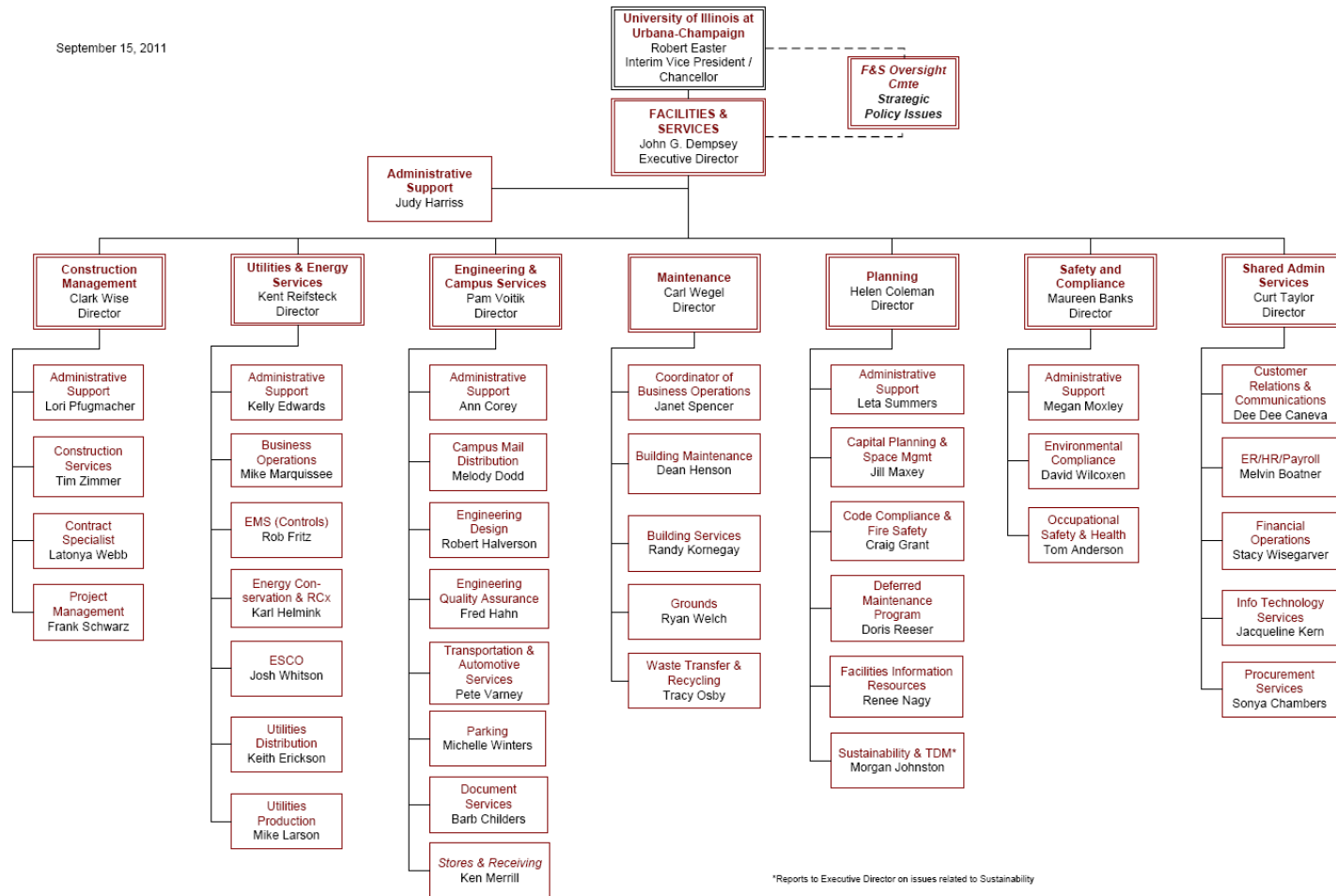


# Facilities & Services



September 15, 2011



\*Reports to Executive Director on issues related to Sustainability

# F&S Energy Services



## Utilities & Energy Services Kent Reifsteck Director

Administrative Support  
Kelly Edwards

Business Operations  
Mike Marquissee

EMS (Controls)  
Rob Fritz

Energy Conservation & RCx  
Karl Helmink

ESCO  
Josh Whitson

Utilities Distribution  
Keith Erickson

Utilities Production  
Mike Larson

### Forecast

### Campus Load

- Historical
- Limited Normalization

### Asset Availability

Policy  
Budget  
Maintenance/Repair  
Regulatory

### NICOR

- Monthly
- Daily

BAI

MISO

- Daily
- Real Time

### Data Collection

### Building

EBS (Monthly)  
Illinienergy.illinois.edu

### EDNA

- Collection
- Monetary
- Analysis
- Report

### Control

### Building

DDC  

- Siemens
- Johnston
- Andover\*
- Invensys\*

 } *Schneider Electric*  
 MACS  
 Pneumatic

### Production

DCS  

- Emerson Delta

 Equipment PLC  
 PMCS

### Demand Response

TES

### Data Sources

### Building Load

Meters  

- Real Time
- Manual Meters (need upgrade)

 Room Data

### Production Metering

### Market Prices

Physical Hedge  
 Financial Options  
 Day Ahead  
 Real Time

# Implementation



- Educational tool and access to historical data
- Complex chain of connections and software from real-time meters to the dashboard
- Not “revenue-grade meters”
- F&S Energy Services will continually monitor the site and work to correct meter issues in a timely fashion