



# **THE STATE ENERGY MANAGEMENT PLAN**

**PRESENTED TO:**

**THE STATE ENERGY MANAGERS ASSOCIATION**

**July 29, 2011**

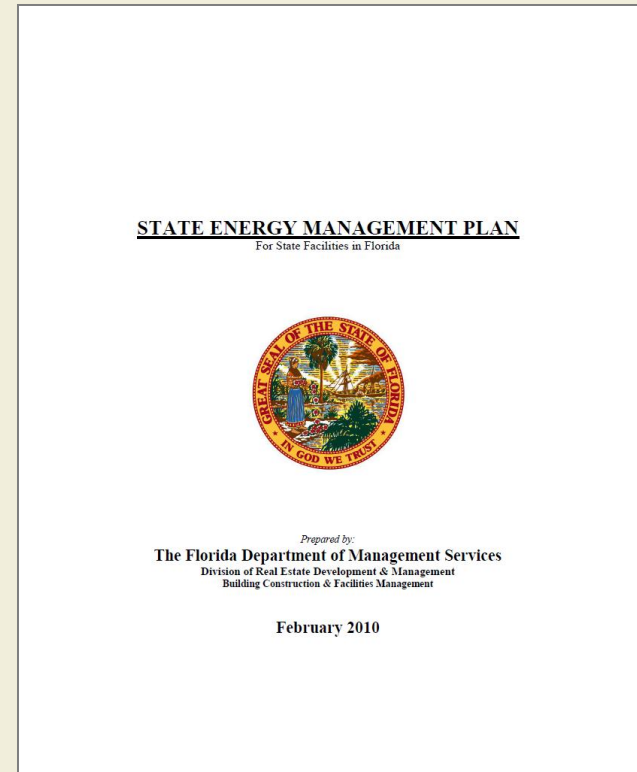
**10:00 AM**

# INTRODUCTIONS



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# TOPICS FOR DISCUSSION

- Statutory Requirements
- SEMP Overview
  - Main Elements
  - Requirements
- What Happens Now?
- Questions & Answers





## STATUTORY MANDATE

- The State Energy Management Plan (SEMP)
  - Released in March 2010
  - Mandated by Section 255.257, F.S.
  - Applies to all state-owned facilities larger than 5,000 square feet
  - Also applies to metered state-leased facilities larger than 5,000 square feet





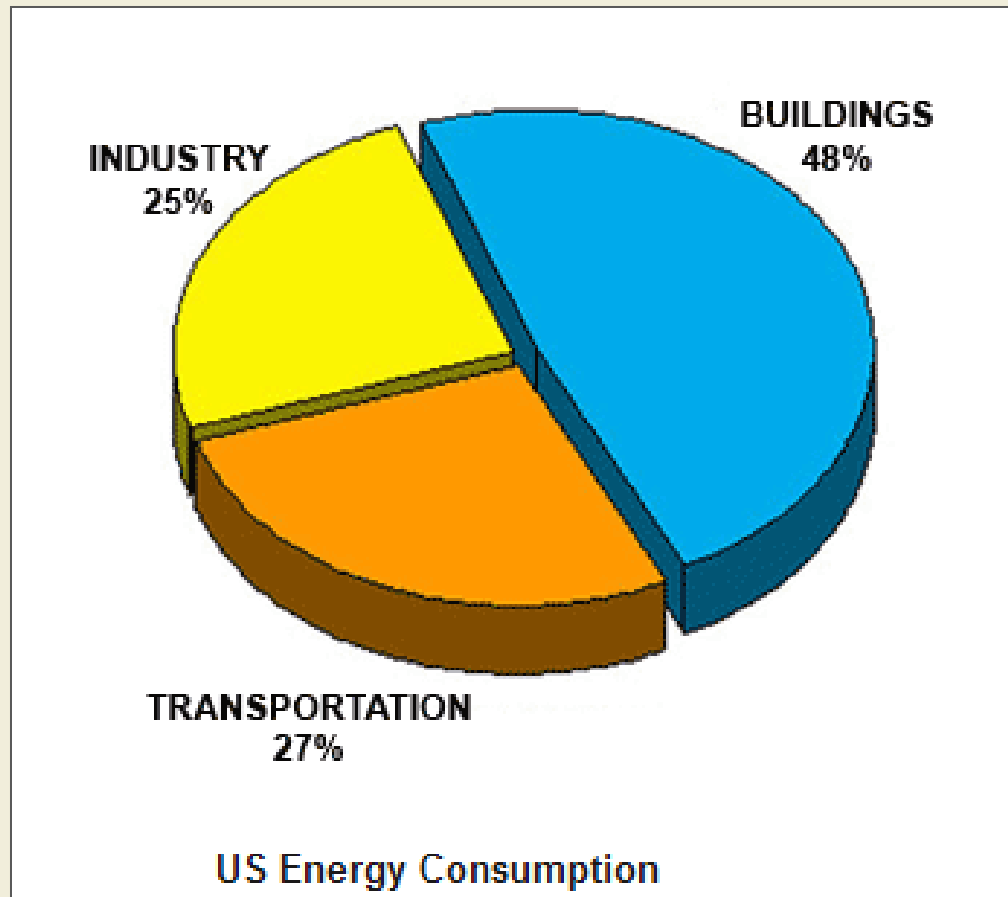
## OVERVIEW OF SECTION 255.257, FS

“The State Energy Management Plan shall include the following”:

- Data-gathering requirements
- Building energy audit procedures
- Uniform data analysis procedures
- Employee education program measures
- Energy consumption reduction techniques
- Training for agency energy management coordinators
- Guidelines for building managers
- Measures to reduce energy consumption in the area of transportation



# WHY SHOULD WE CARE?



# WORLD ENERGY CONSUMPTION PROJECTIONS

**+62%**

(276 QBtu by 2030)





## MAIN ELEMENTS OF THE SEMP

Intelligent Metering: The SEMP introduces a strategy to deploy energy meters that provide agencies with insight into how, when, and why energy is consumed.

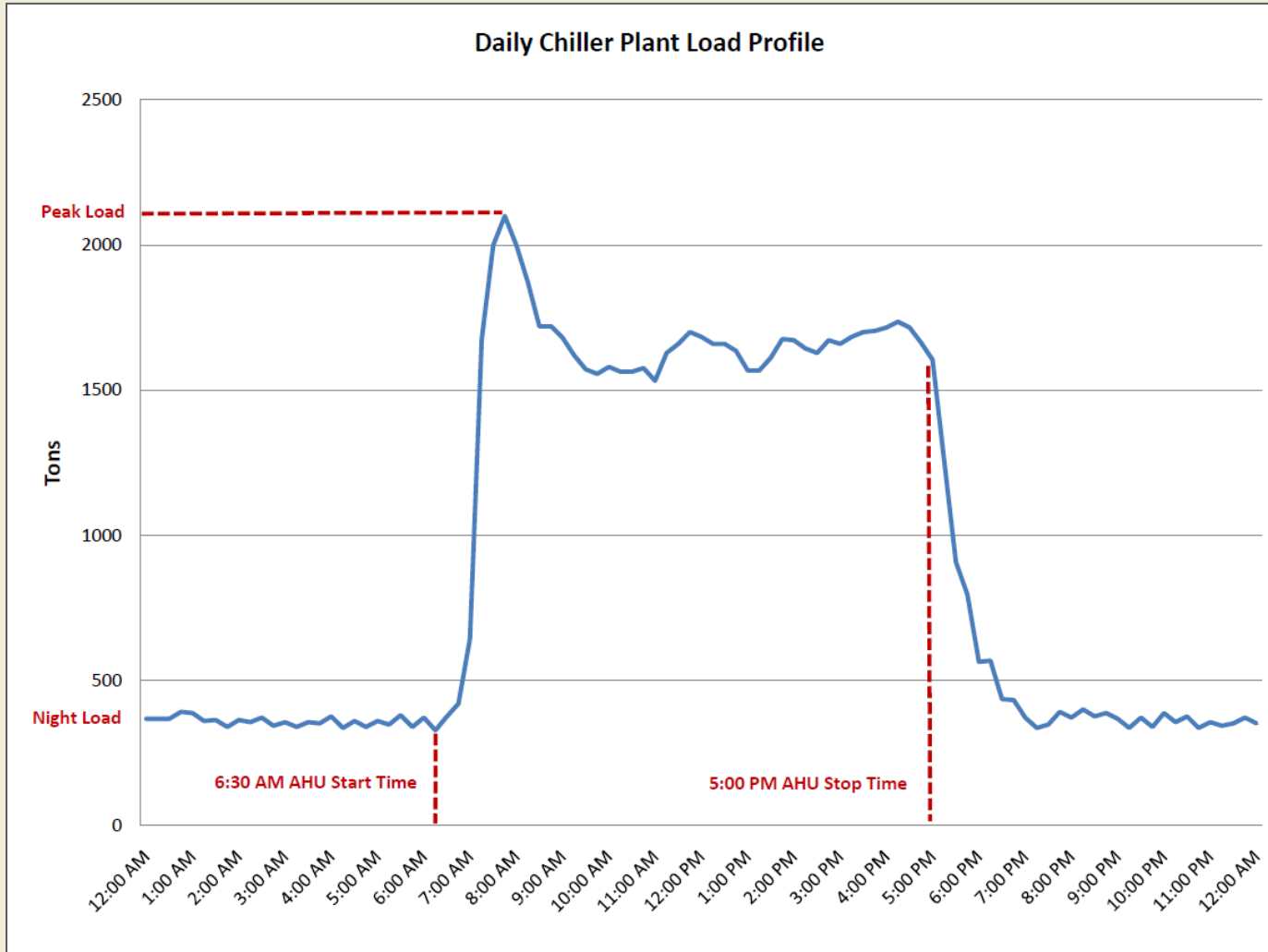
- Applies to major building energy systems
  - Main building electrical feeds
  - HVAC heating systems (500,000 BTU and larger)
  - HVAC cooling systems (50 tons and larger)
  - Water heaters (300,000 BTU and larger)
- Not required when impractical
- Supplements utility bill data
- Implemented based upon the availability of funds
- DMS is proceeding and will share insights





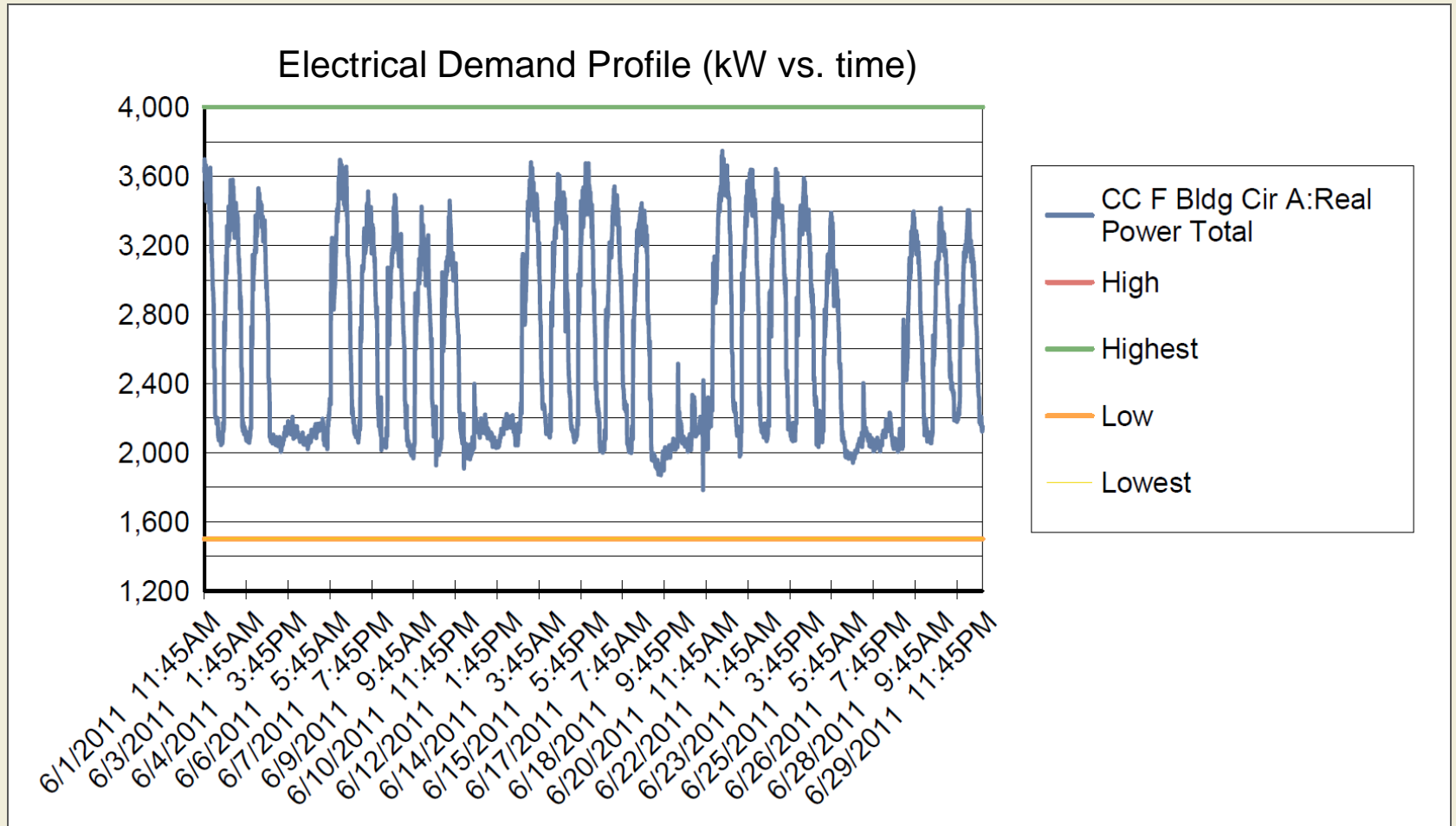


# INTELLIGENT METERING (EXAMPLE)





# INTELLIGENT METERING (EXAMPLE)





## MAIN ELEMENTS OF THE SEMP


Reporting System: The SEMP introduces a system that integrates data collection, recordkeeping, and energy management into one format.

- Generic Microsoft Excel format
- One-time data entry
- Automatically generates the SEMP reports
- Incorporates metrics and energy unit conversions
- Consolidates utility bill data and intelligent metering
- Allows manual data entry



# BUILDING ENERGY REPORTS

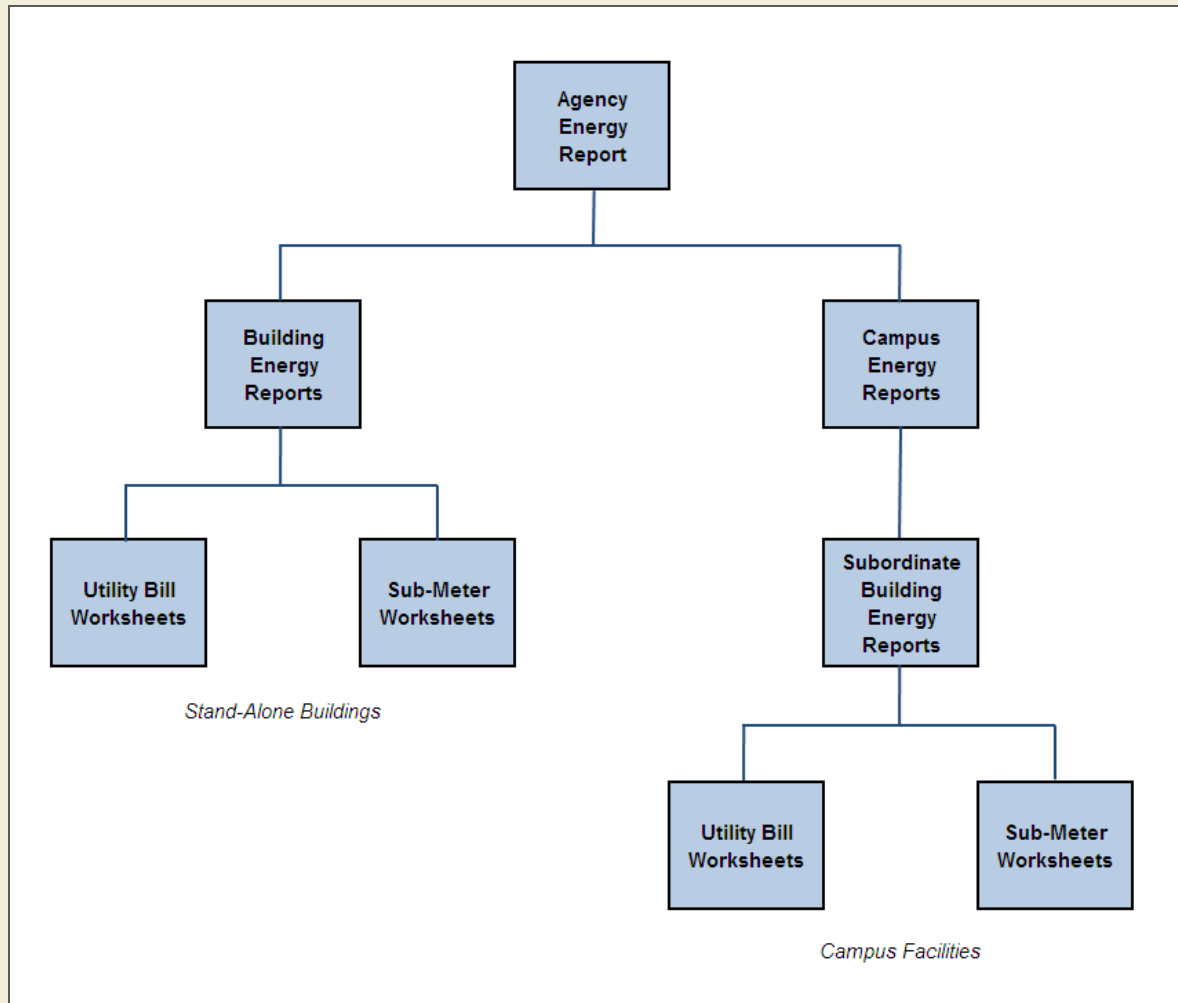


State Agency: Building Name: Billing Address: Fiscal Year: Facility Type:		enter agency name here enter building name here enter address here enter fiscal year here		Building Gross Square Footage: \$0.00 Total Annual Energy Consumption (kSTU/yr): 0 Building EPI (kSTU/\$GFT/yr): 0 Total Annual Building Energy Cost: \$0.00 Building CUI (\$/\$GFT/yr): \$0.00		Comments: (enter comments here)										
Bldg. End Use	System Type	Energy & Cost Data	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Annual	
electrical	main building feed	consumption (kWh)	0	0	0	0	0	0	0	0	0	0	0	0	0	
		peak demand (kW)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		electrical cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
municipal water & sewer	water & sewer	consumption (gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	
		domestic water & sewer cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	irrigation water	consumption (gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		irrigation water cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	reuse water	consumption (gallons)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
		reuse water cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
combined costs	water & sewer costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
natural gas	building usage	consumption (CCF or therms)	0	0	0	0	0	0	0	0	0	0	0	0	0	
		natural gas cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
other fuels (non-vehicular)	propane	consumption (gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	
		propane cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	diesel fuel	consumption (gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		diesel fuel cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	fuel oil	consumption (gallons)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		fuel oil cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
trash & recyclables	trash	cubic yards	0	0	0	0	0	0	0	0	0	0	0	0	0	
		trash cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	recyclables	cubic yards	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		recyclables cost	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	
HVAC cooling (main building system)	chilled water system	consumption (MBTU)													0	
		peak demand (MBTU per hour)														0
		total cost (if purchased outside)														\$0.00
HVAC heating (main building system)	(specify type here)	consumption (MBTU)													0	
		peak demand (MBTU per hour)														0
		total cost (if purchased outside)														\$0.00
water heating	(specify type here)	consumption (MBTU)													0	
ground water	HVAC	consumption (gallons)													0	
	irrigation	consumption (gallons)													0	
Total Building Utility Cost			\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	





# REPORTING SYSTEM HIERARCHY





## THE SEMP ALSO INCORPORATES

- Uniform data analysis procedures
- Building energy audit procedures
  - Performance contracting (ESCO)
  - In-house energy audits
- Techniques to reduce energy consumption
  - Strategies
  - Recommendations when renovations occur
- Training requirements for energy managers
- Guidelines for building managers



## AGENCY ASSISTANCE

- The SEMP requests the agencies to assist DMS in developing the following aspects:
  - Overall program goals
  - Education measures for employees
  - Energy reduction measures for transportation
  - Centralized data storage







# WHAT NOW?

- Reporting System
  - This is the most important aspect of the plan
  - Begin using for July 1, 2011 going forward
  - First annual submission due by September 1, 2012
  - Focus on the Building Energy Reports for the first submission
    - Agencies can use the embedded links in the Building Energy Report or simply fill in the form and send it in (it's up to you).
- Training for energy managers shall begin July 1, 2011.
  - Refer to the SEMP for requirements.





## WHAT NOW?

- SB 2156
  - This bill requires DMS to work with DOACS to coordinate, review, and comment on the energy conservation programs of all state agencies.
  - ***SB 2156: “The Department of Management Services, in consultation with the department, shall coordinate the energy conservation programs of all state agencies and review and comment on the energy conservation programs of all state agencies.”***
  - This section still requires the quarterly reporting of energy consumption and emissions of greenhouse gases to DMS.
    - This process will likely remain as it currently exists.
    - The SEMP Reporting System may be used as your source, but it serves an entirely different purpose.



# WHAT NOW?

- SB 2156 (cont.)
  - DMS will be asking each agency to submit the following:
    - A list of buildings that fall under the SEMP. This list will likely include the square footage, type of occupancy, the year it was constructed, and possibly other information.
    - A description of the agency's energy conservation program. This will likely include major program areas such as policies, procedures, performance contracting, and other energy-related efforts outside of the SEMP.



# THE STATE ENERGY MANAGEMENT PLAN



Thank You