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Large Commercial Buildings: Re-tuning for Efficiency

Re-Tuning Building Controls and Systems

- ▶ Basic Energy Management
 - If you don't need it, turn it off
 - If you don't need at full power, turn it down
 - Make energy system smart, adjusting to real needs



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**Using the knowledge learned from trend-
data analysis and building walk down start
the re-tuning process**

Assumptions about Building Operation

- ▶ Systems are working normally and no repairs are required:
 - False assumption
 - We know all buildings have broken and bypassed systems
 - You will be finding a lot of mechanical and software items that will need further attention
 - These will need to be documented and handled with the building owner/operators

Conclusions

- ▶ Every set point adjustment you make will have an impact of some sort on the utility meter
- ▶ You can save energy and keep staff comfortable
- ▶ It takes time to tune a building
- ▶ There are no magic set points that work all the time
- ▶ Always monitor the utility meters (gas & electric) to see what affect you have had
- ▶ Look at the big picture when making adjustments
- ▶ Watch the meter profiles weekly
- ▶ Learn and know your building's personality



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Environmental Sciences Division

QUESTIONS?

www.pnnl.gov/buildingretuning