

Assignment #2- *SUSTAINABLE RESIDENTIAL BMS*

Your assignment is to describe a BMS that you would install for your new, sustainable residence. This BMS would be responsible for monitoring and controlling the following systems:

1. Exterior lighting systems
2. Interior lighting systems
3. External shading devices
4. Solar Photovoltaic Electric Power system (PV panels including tracking systems, inverters, batteries, etc.) or Wind Energy system.
5. Solar Hot water heating system (Flat plate panels, pumps, storage tanks, etc.)
6. Supplemental, natural-gas fired hot water heating systems
7. Nighttime ventilation system for summer cooling
8. Supplemental electric air conditioning system
9. Smoke detector and alarm systems
10. Security/burglar alarm system

- Describe the number and type of control/monitoring points required
- Are the points AI, DI, AO or DO ?
- Describe how each system will work (**simple** sequence of operation)

COST IS NO OBJECT; YOUR BMS CAN DO WHATEVER YOU WANT IT TO DO!!

I'm NOT looking for a detailed control drawing for this project, just an explanation on how it should be put together. I'm mostly interested in having you develop a points list (BOTH inputs and outputs) that would be required for a complete system and providing a simple system description.

BE CREATIVE AND HAVE FUN WITH THIS; if you'd like to incorporate other sustainable building features feel free to supplement the above list accordingly.

This assignment will be due along with your journal and Assignment #1 on Tuesday, May 18th.