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- (71) **Applicant (for all designated States except US):** **OPTIMUM ENERGY, LLC** [US/US]; 5900 Fourth Avenue S., Suite 200, Seattle, WA 98103 (US).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** **DEMPSTER, Ian** [US/US]; 4115 47th Avenue S., Seattle, WA 98118 (US). **ERPELDING, Ben** [US/US]; 4512 Shirley Ann Place, San Diego, CA 92116 (US). **HANNA, James** [US/US]; 3717 58th Avenue SW, Seattle, WA 98116 (US).
- (74) **Agent:** **VERSHAVE, Richard, C.**; Black Lowe & Graham, PLLC, 701 Fifth Avenue, Suite 4800, Seattle, WA 98104 (US).
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(54) **Title:** SYSTEMS AND METHODS TO CONTROL ENERGY CONSUMPTION EFFICIENCY

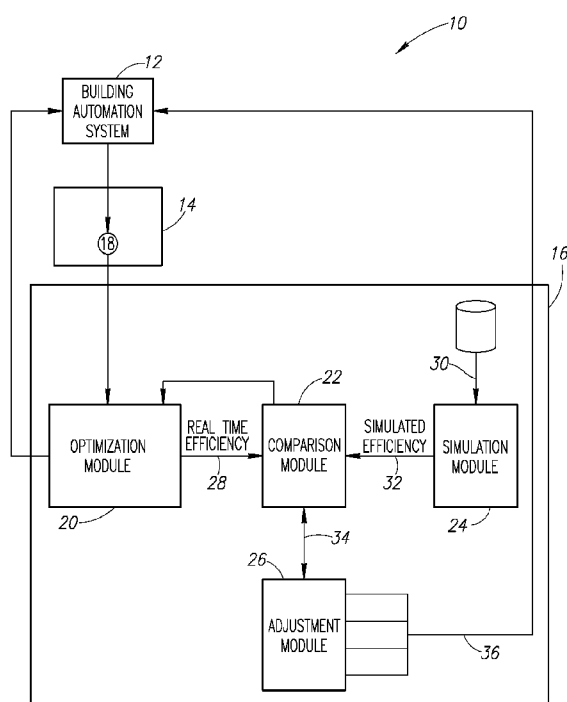


FIG.1

(57) **Abstract:** A controller is configured to exchange information with a building automation system and includes various executable programs for determining a real time operating efficiency, simulating a predicted or theoretical operating efficiency, comparing the same, and then adjusting one or more operating parameters on equipment utilized by a building's HVAC system. The controller operates to adjust an operating efficiency of the HVAC system. An adjustment module utilized by the controller may modify the HVAC equipment parameters based on the likelihood that various HVAC equipment operates in parallel and on-line near its natural operating curve. In addition, the adjustment module may include a self-learning aspect that permits the controller to more efficiently make similar, future adjustments as needed.



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