10 Ways Energy Code Optimizes Office Building Savings

Saving energy saves money. America’s model energy code—the International Energy Conservation Code—sets out minimum efficiency standards for new construction across the U.S. Based on savings found in the field, here are the 10 biggest financial savings opportunities for office buildings in the 2018 IECC.

- **Small office (1,000-5,000 sq. ft.):** $15,000
- **Medium office (5,000-25,000 sq. ft.):** $50,000
- **Large office (25,000-250,000 sq. ft.):** $203,000

Estimated savings are based on average present value of savings found in a field study of 123 office buildings averaging 10,000 sq. ft. to 25,000 sq. ft. in size in Climate Zones 2A and 5A.

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- **Total cumulative savings potential:**
  - **Small office:** Up to $14,000
  - **Medium office:** Up to $49,000
  - **Large office:** Up to $40,000

**Estimated savings are based on average present value of savings found in a field study of 123 office buildings averaging 10,000 sq. ft. to 25,000 sq. ft. in size in Climate Zones 2A and 5A.**

**Meet basic requirements:**
- **Thermostat controls are programmed to avoid simultaneous heating and cooling:**
  - **Potential savings:** (per sq. ft.) $0.02–$0.07
  - **Source:** IECC 2018 C403.4.2

- **Program ventilation system to provide minimum required air delivery during off-business hours:**
  - **Potential savings:** (per sq. ft.) $0.02–$0.07
  - **Source:** IECC 2018 C403.4.2

- **Provide occupancy and daylight sensors to turn off interior and exterior lighting when not needed:**
  - **Potential savings:** (per sq. ft.) $0.66–$1.02
  - **Source:** IECC 2018 C403.4.2

- **Install insulation in the building envelope that meets minimum code requirements:**
  - **Potential savings:** (per sq. ft.) $0.06–$0.22
  - **Source:** IECC 2018 C402.2

- **Provide controlled electrical outlets to turn off equipment when not needed:**
  - **Potential savings:** (per sq. ft.) $0.10–$0.30
  - **Source:** No code section in IECC 2018

- **Design building to have no more than 30% glazing:**
  - **Potential savings:** (per sq. ft.) $0.06–$0.25
  - **Source:** IECC 2018 C402.4.1

- **Design lighting to meet power density requirements. Higher efficiency fixtures and lamps will ensure limits are met:**
  - **Potential savings:** (per sq. ft.) $0.06–$0.25
  - **Source:** IECC 2018 C405.3

- **Purchase and install windows that meet minimum code requirements. Site-built windows must obtain an NFRC certificate:**
  - **Potential savings:** (per sq. ft.) $0.25–$0.30
  - **Source:** IECC 2018 C402.4

- **Ensure thermostat controls are programmed to avoid simultaneous heating and cooling, are set back during off-business hours, and adjust start time of HVAC system:**
  - **Potential savings:** (per sq. ft.) $0.02–$0.07
  - **Source:** IECC 2018 C403.4.2

- **Have the lighting and mechanical systems in your building commissioned:**
  - **Potential savings:** (per sq. ft.) $0.60–$0.71
  - **Source:** IECC 2018 C408

- **Install insulation on hot water pipes to prevent heat loss:**
  - **Potential savings:** (per sq. ft.) $0.10–$0.30
  - **Source:** No code section in IECC 2018

**Potential savings:** (per sq. ft.)

- **Download the 2021 IECC code.**

**All tenant savings should be outlined in the lease.**
- **Green boxes indicate landlord savings.**
- **Orange boxes indicate tenant savings.**