

Roosavelt  
DaCosta

April 30, 2019

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## LEGISLATION INCLUDES

Building Act

Regulations

Codes

## LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

1. Permit required for all EEB work.
2. Building areas targeted by energy code will ensure EEBs.
3. Multiple paths for complying with energy code.
4. Data required with permit application to ensure EEB designs.
5. Occupancy certificate required for building occupancy.
6. Allowing only registered or licensed persons to design EEBs.
7. Establishment of an effective & efficient compliance system.
8. Widespread & sustainable training for all categories of workers in the Building Industry.

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## PERMIT REQUIRED FOR ALL EEB WORK

A person shall not carry out building work unless a building permit in respect of the building work has been issued to him.

**2018 Building Act Section 17. (1)**

“Building work” means the design, construction, erection, alteration, repair, extension, modification, demolition, or removal of a building, and all activities relating thereto.

**2018 Building Act Section 2. (1)**

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## BUILDING AREAS TARGETED FOR ENERGY CONSERVATION

1. Building envelope
2. Lighting
3. Electric power and distribution
4. Ventilation and air conditioning systems & equipment
5. Water heating systems & equipment
6. Auxiliary systems – bldg. transportation & refrigeration systems
7. Energy management systems

Assessments done estimate annual energy saving of 30% & 36 % for large & small offices respectively & 24% & 36% peak demand for the same bldgs

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## MULTIPLE PATHS FOR CODE COMPLIANCE

1. Prescriptive method
2. Performance method
3. Whole building analysis method – design energy consumption & annual energy cost budget.
4. The International Energy Conservation Code method.

The intent of providing multiple compliance paths is that EEB designers will find the most comfortable and applicable path for their design work.

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## DATA TO BE SUBMITTED WITH PERMIT APPLICATION

1. Conditioned or unconditioned building
2. Compliance path followed
3. Minimum rated *R-value* of insulation used in the thermal resistance of walls & roof if the Prescriptive Compliance Path is used.
4. The maximum composite *U-factor* calculated for walls in the other compliance paths.
5. Installed power density in kW /m<sup>2</sup> or calculated Annual Energy Budget in kWh/m<sup>2</sup>/yr.
6. Less credits claimed for skylights, dimming controls, solar power generation & solar hot water systems.

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## OCCUPANCY CERTIFICATION

1. Detailed inspection done during and after building completion to ensure that permit requirements are met.
2. Failure to meet the permit requirements means the building cannot be occupied.
3. This should be a major deterrent to cheating



## LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

### Who can design EEBs?

1. Only registered Building Professionals or licensed Building Practitioners with the recognized competence.
2. Recognized competence means that your registration or license specifically states that you can do this work at a specific level.
3. The current categories of energy practitioners are, Renewable Energy Technician, Solar Energy Technician, Geothermal Technician, Wind Energy Technician & Hydroelectric Technician.
4. Registered Building Professionals and licensed Building Practitioners must participate in continuing education.
- 5 Both Building Professionals & Practitioners have ethical and practice standards to meet to retain their registration or license respectively.

## LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

### Establishment of an effective & efficient compliance system.

1. Reorganizing building departments
2. Training & Certification of all compliance officers
3. Effective scrutiny of permit application data within set turn around times
4. Hire certified professionals from the Private Sector for reviewing work beyond the competence of the Local Authority staff or to reduce backlog
5. More rigorous & frequent inspection of construction works.
6. Conduct detailed inspection for issuance of Occupancy Certificates.

# LEGISLATIVE STRATEGIES TO OBTAIN WIDESPREAD ENERGY EFFICIENT BUILDINGS (EEBs)

## Widespread & sustainable Training

1. Training of local Code trainers
2. Establishment of a code training body to plan, regulate and implement code training in Jamaica.
3. Ongoing Training for all categories of workers in the Building Industry.

THE END