

## **SUMMARY OF ENERGY AUDIT STUDY (EAS)**

The RIC undertook an Energy Audit Study (EAS) of selected schools in Port of Spain and environs during the period June 30, 2015 to August 24, 2015. The objective of the exercise was to determine whether the electricity bills of schools in Trinidad and Tobago were generally high. This sentiment was expressed during the sitting of the Joint Select Committee on Ministries, Statutory Authorities and State Enterprises on the Administration and Operations of the Trinidad and Tobago Electricity Commission (T&TEC) in April, 2013.

The study examined four primary schools and four secondary schools. A systematic assessment of each school was conducted to identify the installed electrical equipment/fixtures, their usage patterns and the electricity bill over a one year period. The assessment was based on the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 100-2006, which uses the Energy Use Index (EUI) (a measure of energy consumed per unit area) to compare the relative performance of the entities against the relevant ASHRAE targets. The EAS utilized those ASHRAE targets that were for the climate zone having weather characteristics similar to that of Trinidad and Tobago, very hot – humid.

The EUIs of six of the eight schools fell within the respective ASHRAE targets, and it was concluded that these schools were efficient in the consumption of energy. However, the EUI of two secondary schools exceeded the range of the ASHRAE target for high schools. The main contributing factors in these cases were the high percentage of air-conditioned interior spaces in both schools and the use of one of the schools for extra-mural classes after regular school hours. Given that most of the schools in the EAS have been consuming electricity relatively efficiently, and that electricity rates in Trinidad and Tobago are lower than in most other jurisdictions, it was concluded that the electricity bills of these schools would be less than the bills of comparative schools in the United States. Thus, the claim that electricity bills are high in Trinidad and Tobago was not supported by the findings of the EAS.

The assessment also identified low cost opportunities for reducing energy consumption. These included: turning off lights and air-conditioning when not in use for extended periods; upgrading lighting fixture to more efficient models; adjusting air-conditioning thermostats to more energy efficient settings; ensuring that high-energy equipment, such as water pumps and air-conditioning systems, are regularly serviced to maintain efficiency; and ensuring that air-conditioned spaces are properly sealed and insulated. It was also recommended that the Ministry of Education (MOE) undertake the following activities to provide general support to schools in Trinidad and Tobago: promote energy conservation and efficiency awareness in all schools; establish an advisory unit in the MOE on electricity and energy use matters; establish a coordinated energy management plan for all schools; and pay the electricity bills of public schools promptly to avoid late payment fees and interest.