

## PROTOTYPE - FACT SHEET

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**ORGANIZATION:** DOE – ANTIGUA AND BARBUDA

### TITLE:

#### Existing Building Commissioning

##### Mission statement

To help existing buildings attain a higher level of effectiveness and efficiency by ensuring all systems operate as intended

##### Briefly describe your prototype idea

Commissioning an existing building has been shown to be a key energy management activity over the decade, often resulting in energy savings of 10% to 30% without significant capital investment.

Commissioning an existing building typically provides an energy payback of one to three years. It also identifies potential capital upgrades, improves building comfort and systems operations as well as reduces maintenance cost. Involvement of facilities personnel can also lead to improved staff technical skills.

The focus is on energy-using equipment, energy utilization index, and energy cost index of an existing facility.

ASHRAE defines building commissioning as “the process of ensuring systems are designed, installed, functionally tested, and operated in conformance with the design intent”.

Existing building commissioning not only improves energy efficiency-it often improves comfort, upgrade staff skills, and may be used to upgrade planning and documentation for overall building operation. Commissioning does not ensure that the systems function as

originally designed, but ensure that the building and systems operate optimally to meet the current requirements.

The commissioning process consists of three phases: Analysis, Implementation and Ongoing.

### Target group

1. Target Group
2. Public Sector
3. Private Sector
4. SMEs
5. Residential Homes

### Potential partner(s) for implementation

1. Policy makers
2. Development Authority Control
3. Public Works Department
4. Department of Environment
5. Bureau of Standards
6. Energy Desk
7. Antigua Hotel and Tourism Association
8. NGOs
9. Private Home Owners
10. Banking Sector
11. Chamber of Commerce

### Key challenges and opportunities

#### Challenges:

1. Lack of support from partners and stakeholders

2. Availability of local technical expertise
3. Measurement and verification
4. Establishment of new policies and standards in support of prototype

Opportunities:

1. Implement no –or low cost operational improvements
2. Establish a good database of existing equipment showing equipment history and maintenance cost
3. Training for technical staff
4. Develop a tracking and verification program
5. Promote a healthy environment and improve human comfort
6. Improve building energy efficiency by 20%

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**Next steps**

1. Commence consultations with policy makers, advisors and all stakeholders
2. Establish how this prototype contributes to the INDCs of Antigua and Barbuda
3. Implementation of a pilot project for prototype4.