

Appendix – B

Synopsis

The objective of the practicum is to design and develop a tool to help communities understand their overall energy consumption and eventually make an informed decision on how to mitigate energy loss. This initiative strives to educate communities and build awareness on climate change by demonstrating calculated benefits of using an alternative energy while reducing carbon footprint.

The learning curve this position offers, prepares an individual to take on challenging roles that align with their interests and career goals in the field of Clean energy. This opens possibilities in Building energy modeling, Energy conservation measures, Walk-throughs and Energy Audits, Green communities, Renewable Energy, Carbon neutrality, and Energy Rating. Several concepts are involved in the design of the tool, such as:

1. **Building Diagnostics**

- Identification of gaps in energy consumption and reduction of energy loss.
- Choice and size of mechanical equipment and distribution systems to increase energy efficiency.
- Identification of gaps in envelope design to minimize energy loss through air leakage.
- Employing Deep Energy Retrofit to achieve energy savings in a building by looking at the overall energy posture, rather than individual systems.

2. **Renewable Energy and Carbon Neutrality**

- Transitioning to clean energy to meet greenhouse gas reduction commitments and provide an opportunity to foster new economic development.