MEMORANDUM OF UNDERSTANDING

Between

HOPE 2020

And

University of the District of Columbia

I. Introduction This Memorandum of Understanding ("MOU") is entered between Hope 2020, a Non Governmental Organization (NGO), headquartered in Addis Ababa, Ethiopia, and the University of the District of Columbia (UDC), Washington, DC, USA, collectively referred to as "Parties".

Pursuant to this agreement, UDC will provide technical and material help for the implementation of Hope 2020's water Supply Project in Tume yaya kebele of Tole woreda in the south Western Shewa zone of Oromia Region ("Project"), which is expected to benefit a total of 5,000 people.

II. Scope of UDC's Participation in the Project Implementation Agreement

The University of the District of Columbia, through its Center of Excellence for Renewable Energy in the School of Engineering and Applied Sciences, will partner with Hope 2020 in order to offer solutions involving the use of solar and wind energy technologies for water resource development for providing electric power for water pumping in rural communities. UDC will specifically provide the following:

A. Material Donation (total estimated value \$15,075 or ETB 134,167):

- 1. Ten (10) BP175B, 175Watt solar panels, donated by BP Solar, USA, valued at \$8,750;
- 2. Mount structure to support 10 BP175B panels to be mounted on a pole, valued at \$1,200;
- 3. One (1) Grundfos 11-SQF-2 submersible pump, valued at \$1,500;
- 4. One (1) H80 Southwest Windpower wind turbine, valued at \$3,225;
- 5. One (1) I102 connector kit valued at \$200; and
- 6. One (1) C200 connector kit. Valued at \$200.

B. Technical Design and Training:

- 1. Design of the electrical setup for the solar panels;
- 2. Design of the interface between the wind turbine and the solar panels;
- 3. Design of the level-switch connector; and
- 4. System start-up and test procedures.
- 5. Initial *in-situ* Technical Training for support staff.

III. Scope of Hope 2020's Contribution to this Project Hope 2020 will provide the following assistance as their contribution in order to successfully implement this project:

A. Construction support:

- 1. Masonry work for erecting and construction an appropriate water reservoir;
- 2. Piping between the submersible pump to the water reservoir and distribution centers;
- 3. Electrical wiring as per the specified design from UDC;
- 4. Erection of the wind turbine tower with the material supplied by UDC; and
- 5. Mounting of ten (10) PV panels on a wooden frame or a 6-inch metal pole as per the specified design from UDC.

B. Logistical support:

- 1. Hope 2020 will assist in arranging for freight transportation from UDC's warehouse to port of entry in Ethiopia; and
- 2. Hope 2020 will complete custom formalities, including transportation costs of the material to the Project site;
- 3. Provide local accommodation and transportation to 2-3 UDC personnel at the time of installation and commissioning of the Project.

C. Maintenance

- 1. Following the commissioning of the Project, for a period of at least 5 years, Hope 2020 will assign a qualified technician to oversee maintenance and test procedures regularly;
- 2. Hope 2020 will provide bi-annual maintenance reports to UDC; and
- 3. Hope 2020 will collect and transmit to UDC reliable research data on system operations and also how the Project has helped alleviate poverty of the communities served as per guidelines worked out jointly between UDC and Hope 2020.

IV. Termination This MOU may be terminated by either party for cause upon 90 days advance written notice by the other party following the occurrence of the following:

- 1. Failure by the other party to abide by the Agreement; or
- 2. Unforeseen natural or political events preventing the realization of the Project.

Effective Date This Agreement shall be effective the day after the date of the last signing by either Party and immediate electronic exchange of the signed Agreement to the other Party.

In witness whereof, the Parties hereto have executed this Agreement as follows:

University of the District of Columbia

Hope 2020

Wilhelmina Reuben-Cooke, J.D.

Provost and Vice President for Academic Affairs