Policy Options for Connecting and Enabling the Next Billion(s) – Phase III
New Sun Road Contribution

INTRODUCTION

New Sun Road develops technology solutions to address energy-poverty and enable Internet connectivity for off-grid communities. A lack of affordable and reliable electricity limits the full productive potential of communities, presenting a key constraint to Internet access in remote locations. Our primary mission is to remove this barrier by developing affordable, resilient technologies to optimize the operation and management of off-grid solar microgrids–driving down their costs, unlocking additional capital and enabling the scale of additional systems. Employing this technology with the support of Microsoft's Affordable Access Initiative, we have developed the SolConnect Productive Centers model–community-run energy, connectivity and economic development centers. We present this as a scalable model for expanding energy and Internet access, increasing digital literacy skills, particularly amongst women and girls, while fostering homegrown economic innovations.

SOLCONNECT PRODUCTIVE™ CENTERS

The SolConnect Productive Centers aim to provide a centralized solution for off-grid communities without effective power or internet services. The Centers address the problem of how to support more all-important value-added commercial activities in communities faced with infrastructure constraints. The key objectives of the Productive Centers are to optimize power usage for a variety of productive needs articulated by a community, while enabling Internet connectivity and introducing ICT skills development in tandem. With energy access as the anchor, centers rely on partnerships with local organizations advancing health, education and/or economic outcomes, aiming to accelerate and broaden these outcomes via connectivity. With the current SolConnect™ Productive Centers still in their infancy, we are exploring further partnership opportunities, as well as the role of community-based networks in developing more robust, sustainable frameworks for future centers.

SOLCONNECT™ ALIGNMENT WITH WITH IGF PHASE III - PROPOSED FOCUS ON SDG 4, 5 AND 9

SolConnect 1: Kitobo Island, Uganda
Context: Village center for poor fishing community with few services.
Primary uses: Tablet rental, internet access, computer lessons, sewing activities.
Commissioned: August, 2016
Aligned with: SDG 4 & 9 – Adopting a community-operated business model, this SolConnect center was developed in the Kitobo village center, adjacent to the solar power house. It provides energy and physical infrastructure supporting light industrial work, access to digital training and access to the internet – enabling access to markets on the mainland.

SolConnect 2: Tekera Resource Center, Masaka, Uganda
Context: Serving a poor agricultural community, Tekera Resource Center ("**TRC**") provides health clinic, child education, craft outlets and agricultural services.

Primary uses: Internet, computer lessons, vocational school, sewing, power tools, printing.
Commissioned: June, 2017
Aligned with: <u>SDG 4, 5 & 9</u> – In addition to its medical clinic and a wide array of services, TRC provides educational, agricultural and crafts services, with an objective of increasing the prosperity of the community and making the center completely sustainable. New Sun Road has introduced energy and Internet connectivity to support the growth of additional productive activities, internet and digital skills training for children and women in the community.

SolConnect 3: Aldea Liano Grande, Santa Rosa Department, Guatemala
Context: School in a rural agricultural community near vast (100km long) sugarcane plantation.
Primary uses: School, computers, community internet and power access, printing.
Commissioned: Planned for Q3 2017
Aligned with: SDG <u>4, 5 & 9</u> – Partnering with the Guatemala Ministry of Education and a local architect, New Sun Road will introduce the Productive Center model to a proposed pilot girls school where digital skills will form a key part of the curriculum and community members will have access to internet and digital skills training.

POTENTIAL IMPACT AND EARLY OBSERVATIONS

The 3 SolConnect™ Productive Centers are still at an early stage, with their impact yet to be measured. However, New Sun Road's Stellar™ cloud management platform, used with its IoT devices, will provide visibility into the operation of the Centers in Uganda. This includes how to optimize energy systems for various industrial activities (fish drying, salons, internet services), and which productive activities Internet connectivity has most advanced. To date we have seen:

- an increase in community members accessing the services;
- an increase in basic digital literacy, solar and electrical installation skills; and
- a growth in new productive activities in the community.

Together with our local partners, we will continue to monitor the effects the Centers have in:

- meaningfully increasing digital literacy skills and Internet access in an inclusive manner;
- affordably addressing infrastructure challenges – particularly energy and connectivity;
- improving ancillary outcomes in community health, education, business services via connectivity; and
- increasing and broadening the scope of productive activities in the community.

By adopting a cross-cutting approach involving 1) removing infrastructure barriers 2) introducing digital skills training and 3) incorporating local community needs, the benefits of Internet access could meaningfully impact the social and economic outcomes of all members of a community. We look forward to working with the IGF community to share experiences in further developing the SolConnect Productive Centers model, identify obstacles to scaling, and advance access in remote, underserved communities.