



# COMPANY OVERVIEW



1.6 billion people in the world have no electricity  
Another 1 billion have unreliable access

# PAKISTAN DEMOGRAPHICS

- **DEMOGRAPHICS:**

- Population : ~210 million
- Off-grid population: 41%(approximately 11 million households)
- Grid connected areas are subject to prolonged outages.(which can upto 20hrs in rural areas and 14 hours in urban areas)
- Cell Phone Users : >135 mn
- 2<sup>nd</sup> largest off-grid market in Asia implies huge potential.

- **ALTERNATE SOLUTIONS\* :**

- Kerosene
- Battery operated torches.



\*IFC Estimates USD 2.3bn spent annually on lighting purposes, with an additional expense on mobile charging in the rural market

# INTRODUCTION

## ABOUT US

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- Privately owned company working to provide quality solar solutions.
- Founded in 2017.
- Developing footprint across the country.

## OUR BELIEF

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- Integrity.
- Adherence to strong business ethics & values.
- Transparency.
- Partner Support

## HOW WE DO IT

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- Offer the best products from best-in-class manufacturers.
- Marketing Support to partners
- After Sales & Service
- Warranty Execution

# PARTNERS



**Miller Center**  
for Social Entrepreneurship

*Member of*

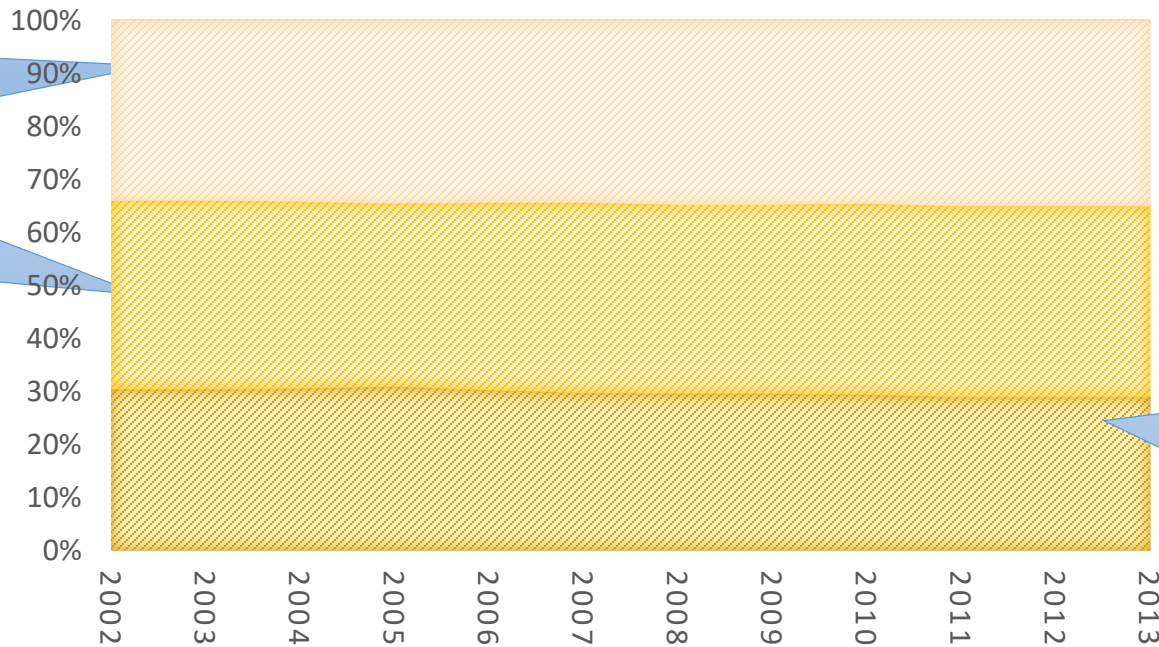
**WORLD ALLIANCE**  
*for* EFFICIENT SOLUTIONS

by **SOLARIMPULSE**  
FOUNDATION

# MARKET OPPURTUNITY

## Rate of electrification in Pakistan

■ Grid (- 12 hrs l/s)   ■ Grid (+ 12 hrs l/s)   ■ Off-Grid



**69 mil**  
Off-grid,  
Unserved

**75 mil**  
On-grid,  
Underserved

**144 mil**  
facing  
Energy Crisis

**53 mil**  
On-grid,  
Served

Source: Pakistan Off-Grid Lighting Consumer Perceptions Study 2015 by Lighting Pakistan

# ALTERNATE SOLUTIONS- CHALLENGES

## – Expensive:

- Repeated purchase over time which causes more money to be spent as compared to the effective solutions.\*

## – Risky:

- There is a risk of tipping over which can cause fire.

## – Limits Productivity:

- Causes strain on eyes affecting focus hence limiting productivity during dark hours

## – Quality:

- No after-sales service.
- Warranty Issues.
- Lack of technical expertise.



\* IFC Estimates suggest that USD 2.3bn is spent on lighting through conventional means. This excludes Mobile charging expense.

# MARKET SEGMENTATION

## Off-Grid

- Portable Solar Solutions.
- Portable Solar Lights

## On-Grid

- Solar Domestic/Commercial Solutions
- Customized Solutions.



# OFF- GRID SEGMENT

# PRODUCT LINE

Solar Task Light



Basic Solar Lantern

Entry Level Solar Lantern



Lantern with Mobile Charging



Solar Lighting Solution with Mobile Charging



Solar Home Solution - pipeline  
*\*expected Apr'19*

# PRODUCT FEATURES

- Easy to use.
  - Standalone systems.
  - Convenience of usage, and easy to operate.
- Easy maintenance
  - The products require no or minimum maintenance.
  - For better performance, clean the units after regular intervals.
- Portable
  - Light-weight, can be carried or placed at any location without much of infrastructure.
- Plug & Play.
  - Easy to install. Solutions offering grid like experience.
- Robust.
  - Impact resistant
  - Water resistant
  - Can be used in temperatures ranging -20C - +65C

# SL-1 – Basic Solar Lantern



- 3x brighter than conventional lighting means.
- Mono-crystalline Panel – Integrated (0.3W)
- Maintenance free LiFePO<sub>4</sub> battery (400mAh)
- 2x brightness modes.
  - Low : 7 hours
  - High : 3 hours.
- Solar Charging.
- >3 years product life.
- 1 year warranty.
- Water & Impact Resistant
- 1 year free replacement warranty

## Logistic Information

Product Weight	85g
Standard Packaging	96 units/carton

# SL-2 – Solar Task Light



- 3x brighter than conventional lighting means.
- Mono-crystalline Panel – Integrated (0.4W)
- Maintenance free LiFePO<sub>4</sub> battery (550mAh)
- 2x brightness modes.
  - Low : 9 hours
  - High : 6 hours.
- Dual Charging (Solar /AC ( MicroUSB)).
- Water & Impact Resistant
- Flexible handle allows positioning at different angles.
- 1 year free replacement warranty

## Logistic Information

Product Weight	190g
Standard Packaging	80 units/carton

# SL-3 – Entry Level Solar Lantern



- 7x brighter than conventional lighting means.
- Poly-crystalline Panel – Integrated (0.4W)
- Maintenance free LiFePO<sub>4</sub> battery (550mAh)
- 360° illumination.
- 2x brightness modes.
  - Low : 10 hours
  - High : 5 hours.
- Dual Charging (Solar /AC ( MicroUSB)).
- Water & Impact Resistant
- Flexible handle allows positioning at different angles.
- 1 year free replacement warranty

## Logistic Information

Product Weight	350g
Standard Packaging	30 units/carton

# S44 – Lantern with Mobile Charging



- LED Lighting and mobile charging in one device
- 4 x Brightness settings provide backup for:

Mode	Time(hrs)
Bedlight	61 hrs
Low	32 hrs
Medium	13 hrs
High	7 hrs

- Smart LED battery indicator
- Glow-in-dark strap which makes product easy to locate in dark
- 5-in-1 USB cable for phone charging – can charge phones generally available.
- Dual charging options.
  - Solar.
  - AC (12V adaptor – not included in the package)

## Logistic Information

Product Weight	750g
Standard Packaging	12 units/carton

# SLS13 – Solar Lighting Solution



- Plug & Play Design.
- Lighting & phone charger in 1 device
- Backup time ~ 32 hours.
- High Efficiency Lithium battery.
- Impact Resistant.
- Ideal for daily home lighting, outdoor activities or remote areas
- 10m cable with switches.

Charging time:  
 4-16hours under sufficient sunlight  
 14-16hours under sufficient sunlight



USB mobile phone charger



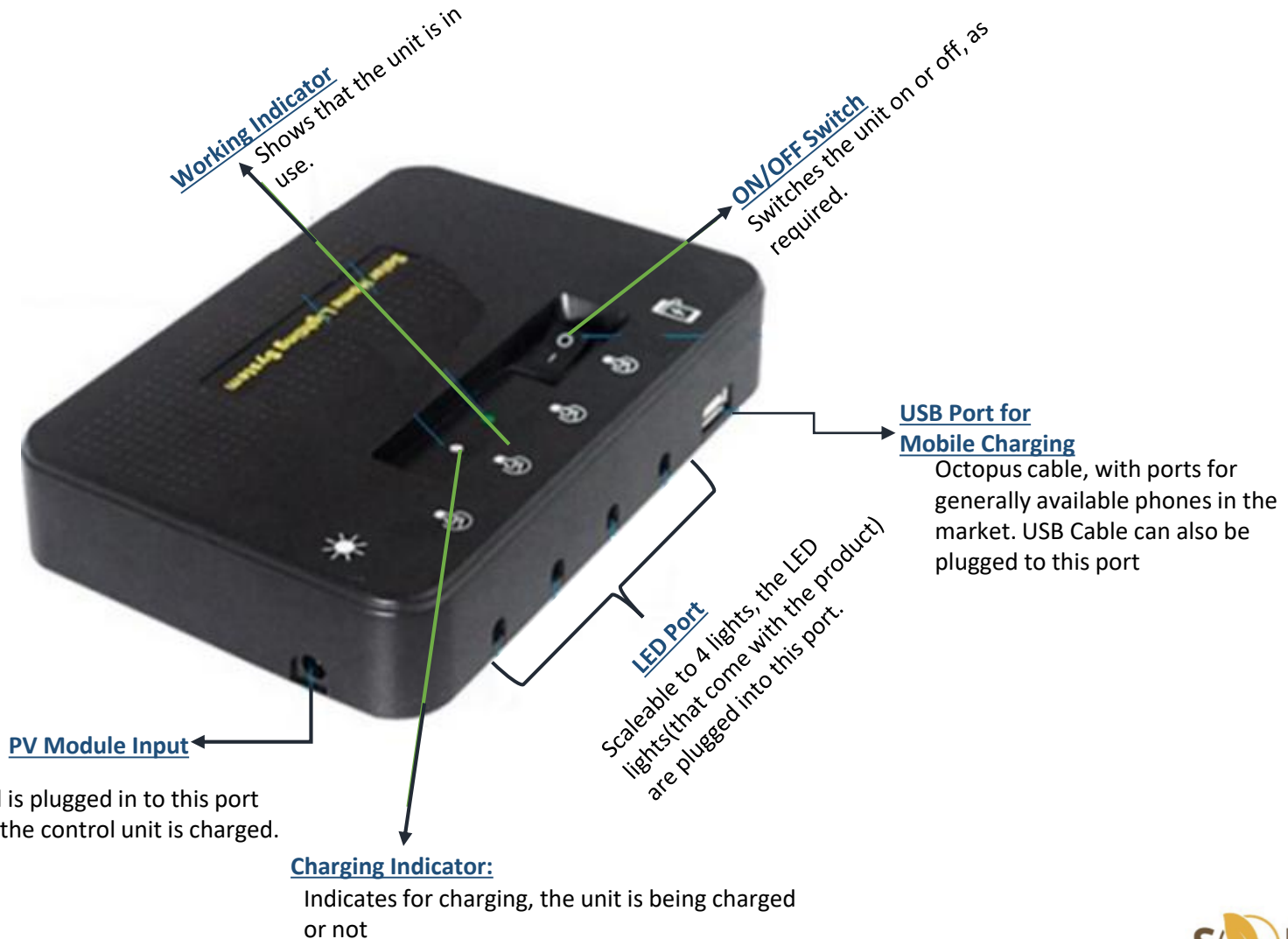
Optional: extendable cable, maximum 10 meters long

Attribute	Details
PV Module	4W Poly
Battery	5200mAh Li-ion
Backup	<ul style="list-style-type: none"> <li>• 3 lights : 11hrs</li> <li>• 2 lights : 15hrs</li> <li>• 1 light : 32hrs.</li> </ul>
Charging Time	14-16 hours.

Also available in 2 LED Variant.



# SLS-13 – Control Unit.



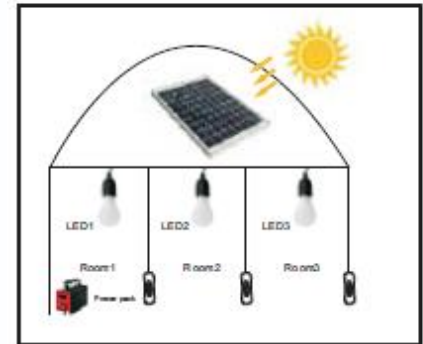
# SHS-1 – Solar Home Solution(*Pipeline*)



- Home Solution designed to address to greater energy requirements.
- Unbreakable light and other components.
- Easy to install, plug&play design
- Lighting, Mobile Charging, Fan Accessory.
  - 3 x 3W LED bulbs(unbreakable) – life upto 50,000 hrs
  - 7m cable for lighting (with switches).
- Compatible with:
  - Ceiling Fan.
  - Pedestal Fan.
  - Table Top Fan.
- Battery Indicator.
- Warranty : 1 year.

Attribute	Details
PV Module	10W Poly
Battery	7,000mAh Lead Acid
Backup	<ul style="list-style-type: none"><li>• 3 lights : 8 hrs</li><li>• 2 lights : 12hrs</li><li>• 1 light : 24hrs.</li><li>• Fan : 4 hours</li></ul>
Charging Time	8-10 hrs.

# SHS-1 – Solar Home Solution – Layout



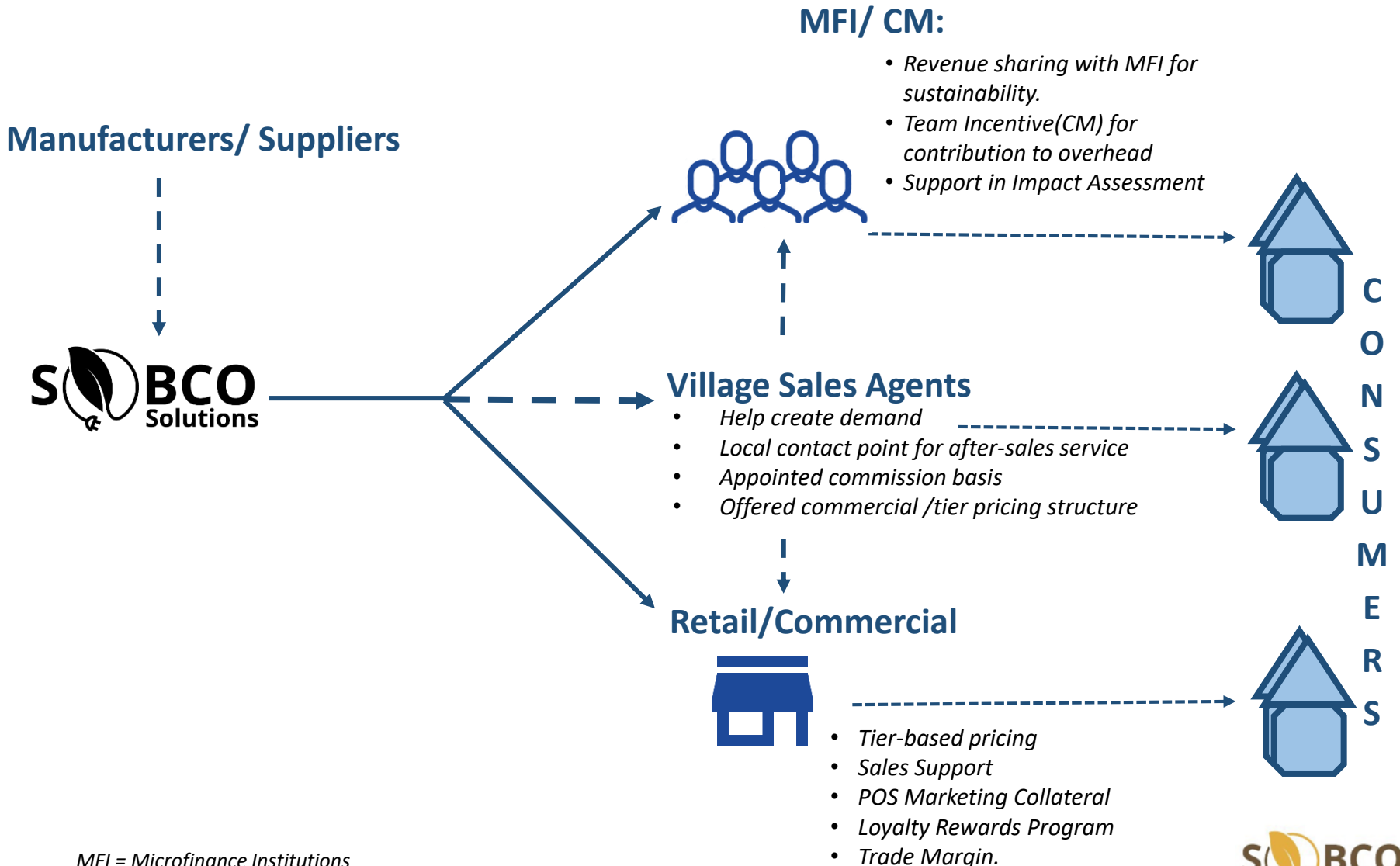
Optional: 7 meter cable with hanging switch

Optional:



# ROUTE TO MARKET

# VALUE CHAIN



MFI = Microfinance Institutions  
CM= Community Mobilizers

# WHAT WE OFFER

## – High Quality Products.

- Robust product line, to sustain any environment.
- Best in class design.
  - Water Resistant.
  - Impact Resistant.
- Long lasting batteries.
- Easy Maintenance.

## – Warranty:

- Free replacement warranty of products for the warranty period (as per the warranty terms & conditions).

## – Partner Capacity Building:

- Trainings on Products & Service.

# WHAT WE OFFER

## MFI/SOCIAL ORGANIZATIONS

- Revenue sharing model for sustainability
- Incentivization of field team\*.
- Impact Assessment.

## COMMERCIAL DISTRIBUTION

- Tier-based pricing to cover trade levels.
- Sales Support.
- POS Material.
- Loyalty Rewards Program.

*\*Upon mutual agreement through the partner organization*

# IMPACT ASSESSMENT



# IMPACT ASSESSMENT – METRICS

- Lives Impacted / Empowered with Clean Energy:
  - lives impacted (having access to clean energy).
    - Impact: Access to energy, first step to energy ladder.
- School Aged children reached
  - Number of children having access to clean energy.
    - Impact : Better studying conditions.
- Savings in energy related expenses: \*
  - Saving from recurring cost on alternate solutions
    - Impact : Better savings, as the same recurring expense can be utilized in different ways.
- Productive hours generated: \*
  - Additional hours that the people can work.
    - Impact: Improved earnings.
- Environmental Impact: \*
  - CO<sub>2</sub> offset

\* Refers to the impact of the product over the product life.

# IMPACT ASSESSMENT – DATA SOURCES

- Lighting Africa. "The Off-Grid Lighting Market in Sub-Saharan Africa: Market Research Synthesis Report." IFC and the World Bank. February 2011.
- Lighting Asia. "Solar Off-Grid Lighting, Market Analysis of India, Bangladesh, Nepal, Pakistan, Indonesia, Cambodia and Philippines." IFC and the World Bank. May 2012.
- Demographic Indicators in UNICEF. "State of the World's Children 2012."
- Bongaarts, John. "Household Size and Composition in the Developing World." Population Council. No. 144. 2001.
- CDM Executive Board. Indicative Simplified baseline and monitoring methodologies for selected small-scale CDM project activity categories:
  - Substituting fossil fuel based lighting with LED/CFL lighting systems. UNFCCC/CCNUCC III.AR./Version 04.

# VALUE PROPOSITION

# VALUE PROPOSITION

- Technology to the last mile in reach.
  - Serving the customers in last mile, addressing one of the core needs.
- Quality products
  - Warranty period covering the entire loan cycle duration.
  - Very low fault rate(<1%), covered with a replacement warranty.
- Diversification of revenue stream
  - Revenue sharing model.
  - Incentivization for the team on ground to cover some overheads.
- Social Impact
  - The social impact of the product line can be quantified, and a calculator would be made available.
  - The same can be attached to the organizational profile which can further highlight the impact in the social development domain.

THANK YOU