

# **Technical Service Level Agreement**

## TABLE OF REVISIONS

Revision	Description	Date
1.0	Initial Release	08/06/2020
2.0	Review of KPI and escalation service task	05/11/2020

# GLOSSARY

Acronym	Meaning
ASC	Authorized Service Centre
BoM	Bill of Material
CAT	Customer Acceptance Test
GUI	Graphical User Interface
IIB	INFINITY Interface Panel
IP	INFINITY Primary
IX	INFINITY Xtra
PWD	Project Work Document
RMA	Return Merchandize Authorization
SAAS	Software As A Service
SLA	Service Level Agreement
SOC	State of Charge
UI	User Interface

#### 1. Introduction

This SLA defines in practical terms the relationship between distributors and ZOLA ELECTRIC as it relates to technical installations and operations. It emphasises stakeholders activities, expected deliverables with timelines, responsibility matrix, ZOLA support departments and penalties where applicable. The SLA covers the three installation process phases: preinstallation, core installation and post installation.

The objective is to ensure the stakeholders have sound understanding and are in full compliance with all that is presented within the SLA for the following reasons.

- Enhance business growth and sustainability
- Mutual respect and collective goals
- Excellent customer service and relationship
- Enhance operational efficiency

#### 2. Technical Training and Certification

ZOLA Electric shall be responsible for the technical training and certification of distributors' technical teams. The technical training shall be facilitated by ZOLA Electric technical teams at the ZOLA office.

Technical partnership engagement certificates shall be issued to distributors who have proven to be successful at the technical training. The technical partnership engagement certificate shall be renewable every four years for big distributors and every two years for small distributors. The renewals shall be through refresher training tests, operational and service performance over the previous years.

ZOLA Electric reserves the right to withdraw/terminate issued certificates where the distributor fails to meet up with expected best practices guidelines relating to HSE noncompliance, shoddy installations, unethical dealings, nonpayment of requisite operational charges and poor customer service.

## 3. Distributor Stakeholders Team

- Managing Director (MD)
- Chief Financial Officer (CFO)
- Chief Technical Officer (CTO)
- Head Technical Project Manager
- Customer Service Lead
- Supply Chain Lead
- Field Supervisors
- HSE/QA Lead
- Field support Engineers

## 4. ZOLA Electric Products Stakeholders

Installation	Task	Department
Pre Installation	<ul> <li>Site and Energy audit</li> <li>System configuration mix presentation/design</li> <li>Engagement and consultation</li> <li>Inventory planning: sorting, staging etc.</li> <li>Equipment, Resources and Accessories deployment</li> </ul>	Customer Service Engineering Product Sales TechOps
Core Installation	<ul> <li>Mechanical Installation         <ul> <li>Mounting and installation of solar panel racking system</li> <li>Solar PV installation</li> <li>Earthing, termination, testing and commissioning of all mechanical installation components</li> </ul> </li> <li>Electrical Installation         <ul> <li>Site earth/ground system assessment</li> <li>INFINITY IPS and all inclusive system components positioning and installations</li> <li>All electrical cable terminations</li> <li>Appliances utility interconnection</li> <li>Installation quality checks before commissioning</li> </ul> </li> </ul>	TechOps
	<ul> <li>FW installation and upgrades</li> <li>String configuration, testing and commissioning</li> <li>Mobile App set up</li> </ul>	Engineering/Application Engineering/ TechOps
<ul> <li>Customer Engagement (Education)</li> <li>INFINITY Mobile App download</li> <li>System operations education</li> <li>Best practice application/System Warranty Education</li> <li>Sign-off</li> </ul>		TechOps/ Product Field Quality/ Engineering
	Project Closure Reports • CAT <sup>1</sup> • PWD <sup>2</sup>	TechOps
Post Installation	<ul> <li>INFINITY IPS Technical support</li> <li>Customer Onboarding</li> <li>After Sales Technical Support Services</li> <li>Local &amp; Remote support/preventive/corrective</li> </ul>	Customer Service Engineering/ Product Field Quality Product/Support service TechOps

1: Customer Acceptance Test (CAT)

2: Project Works Document (PWD)

## 5. Technical Installation Process Phases Activities and Responsibility Matrix

Ducient		Responsibility Matrix	
phase	Project Activities	Distributor	ZOLA
Pre Installation	<ul> <li>Site and Energy audit</li> <li>System configuration mix presentation/design</li> <li>Engagement and consultation</li> <li>Inventory planning: sorting, packing etc.</li> <li>Equipment, Resources and Accessories deployment</li> </ul>	R/A	C/I
Core Installation	<ul> <li>Mechanical Installation         <ul> <li>Mounting and installation of solar panel racking system</li> <li>Solar PV installation</li> <li>Earthing, termination, testing and commissioning of all mechanical installation components</li> </ul> </li> <li>Electrical Installation         <ul> <li>Site earth/ground system assessment</li> <li>INFINITY IPS and all inclusive system components positioning and installations</li> <li>All electrical cable terminations</li> <li>Appliances utility interconnection</li> <li>Installation quality checks before commissioning</li> </ul> </li> <li>FW installation and upgrades         <ul> <li>String configuration, testing and commissioning</li> </ul> </li> <li>Installation Components/Accessories Audit</li> <li>Audit of components/accessories:post installation inventory</li> <li>Document in BOM and PWD report</li> </ul> <li>Janitorial         <ul> <li>Clean up all installation debris</li> <li>Solar PV maintenance</li> </ul> </li> <li>Customer Engagement (Education)         <ul> <li>INFINITY Mobile App download/setup for customer</li> <li>System operations</li> <li>Best practice application/System Warranty</li> <li>Sign-off</li> </ul> </li> <li>Project Closure Reports         <ul> <li>CAT</li> <li>PWD</li> </ul> </li>	R/A	C/I
Post Installation	<ul> <li>INFINITY IPS Technical support</li> <li>Customer Onboarding</li> <li>After Sales Technical Support Services</li> <li>Distributor responsible for forward and reverse logistics needed for warranty claims</li> <li>Local &amp; remote support/preventive/corrective</li> </ul>	R/A	R/C/I

R: Responsible A: Accountable C: Consulted I: Informed

## 6. Scope of Work (SOW) with KPI

This section defines details of key installation process service support, scope of work with timelines and responsibility matrix

Installation Phase	Scope of Work	Timeline for Closure	Distrib utor	ZOLA	Comment
Pre	Energy Audit with report- configuration mix	Within 24 hours of request	R/A	C/I	Configurator tool will be provided
Installation	Inventory logistics to distributor warehouse	This varies depending on the order volume, location, country of inventory dispatch etc. Usually within 48 hours - 8weeks post payment confirmation	R/A	C/I	Installation location
Core Installation	Mechanical, Electrical , FW installations and system commissioning with PWD and CAT sign-off	Within 48 hours of the inventory drop off at the last mile. 9am - 6:30pm	R/A	C/I	End-to-end installation with sign-off is between 8am -6:30pm daily
	System registration for warranty	Within 30days of installation	RA	C/I	Distributor shall register system details on the warranty portal
	Customer Onboarding	Within 5- 7 days of CAT sign-off	R/A	R/A/C/I	Distributor shall communicate CAT sign-off to ZOLA within 24 hours
Post	Preventive Maintenance	Within 4 - 6 Hours	R/A	C/I	Solar PV cleaning, proactive system performance remote monitoring
Installation	System Upgrade	Within 4 - 6 Hours	R/A	C/I	IPS scalability- optimizing capacity
	Hardware Replacement	Within 4 -6 Hours	R/A	C/I	ISP, IIPA, Sub panel, Circuit breakers, FLEX P1 inverter, interconnection electric cables. NO IPS or FLEX meter box tampering
	Forward/reverse logistics for system/component pre and post repairs	Within 48 hours of system request to service centre	R/A	C/I	Destination is ZOLA accredited service centre
	IPS Repairs within Approved Service Centre (ASC)	Within 72 hours of ITP	I	R/A/C	INFINITY IPS comprehensive diagnosis, repairs and testing to be done by ZOLA. Task within service centre
	Ethical Battery Disposal	At end-of-life	R/A/I	С	Stakeholders

R: Responsible A: Accountable C: Consulted I: Informed

## 7. Escalation Severity and Categorization

Escalation severity are categorized into three: S1, S2 and S3.

Where S1 is defined as HIGH, S2 represents MEDIUM and S3 represents LOW.

The various severity categorizations are described below.

Severity	Abbreviation	Classification	Description
Severity 1	S1	High	<ul> <li>Non availability of power supply from the system. Where the system is presented as non-functional, LED displays white light in ship mode manner or no light at all.</li> <li>Non-functionality of the cooling fans in the box triggering very high temperature alarm</li> <li>INFINITY IPS abrupt shut down</li> </ul>
Severity 2	S2	Medium	<ul> <li>Where only IP4 is functional while other IX boxes have no LED glow</li> <li>ISP or FLEX solar PV panel not producing voltage despite highly sunny day (sun hours)</li> <li>Interface panel has circuit breakers tripping or not responsive</li> <li>Customer lighting components; bulbs, tubes etc. fluctuating consistently in all parts of the installation site</li> <li>Needing remote support for technical guidance</li> </ul>
Severity 3	S3	Low	<ul> <li>INFINITY IPS not charging via grid after grid power restoration e.g. Consistent drop in battery SOC with grid availability</li> <li>FLEX P1 inverter LED on RED</li> <li>ERROR 1 message on FLEX meter box UI monitor</li> <li>No supply to some parts of the installation site</li> <li>Mobile App not displaying system configuration mix and readings</li> <li>Mobile App not displaying notifications/daily/weekly/monthly KWH</li> </ul>

### 8. Severity and Service Level Support

The severity and corresponding support levels are defined below with mode of support and responsibilities.

Escalation	Support Tool				Responsibility Matrix	
Severity (FS)	Support	SW Application	Mode of	Support Function	Distributor	70I A
S3	Level-1	<ul> <li>ZOLA Vision.</li> <li>Troubleshooti ng Guideline</li> </ul>	Remote	Distributor customer service/Network Operating Centre (NOC). ZOLA customer service shall be available to give remote support where needed to support the distributor team to resolve escalations within this category of support. This includes Mobile App application notification setting and other related issues, IIB supply breakers, IPS UI guide	R/A	C/I
S2	Level -2	<ul> <li>ZOLA Vision.</li> <li>Troubleshooti ng Guideline</li> </ul>	Remote/ Local	The distributor technical team is responsible for the level-2 support. ZOLA team shall be available to give remote troubleshooting support to the distributor team to ensure swit faults resolution within MTTR and safety guidelines. Distributor team to visit customer's location for localized resolution where remote support fails. Specified ancillary hardware components and some application diagnosis will be done onsite. Components replacement such as ISP, INFINITY Interface box, Sub panel, circuit breakers and interconnection electrical cables and Q cables will be done onsite	R/A	C/I
S1	Level-3	<ul> <li>ZOLA Vision.</li> <li>Troubleshooti ng Guideline</li> </ul>	Remote/ Local	ZOLA technical team shall collaborate remotely with the distributor technical team for decommissioning where the ZOLA technical team has confirmed the system needs to be taken tot the service centre. Distributor team shall be onsite for the decommissioning. Distributor is responsible for forward and reverse logistics of the decommissioned system to the service centre. All INFINITY IPS repairs are done within the ZOLA service centre or approved service centres.	R/A	A/C/I

R: Responsible A: Accountable C: Consulted I: Informed

## 9. Faults Resolution KPI for Incident Escalations

The faults resolution KPIs are for faults escalations only due to installation and post installation non-compliance and system errors. These are assigned to the distributor's team to resolve within presented KPIs. The KPI will be used to measure distributors responsiveness and ultimately quality of service. All presented descriptions correspond to severity categorization and respective support levels are to be administered.

Note: Faults logging, tracking and management would be through provided SaaS platforms.

Severity	Mean Time to Respond	Mean Time to Resolve	Description
S1	5 Minutes	4-6 Hours	Critical IPS box related malfunction leading to IPS box internal components replacement, IPS box decommissioning for repairs etc. The escalation demands swift action. First action is to put the system in bypass mode via remote support as the first line of action prior to localized support. This is followed by complete system shut down before proceeding to decommission the system where necessary. Decommissioned system to be conveyed to ZOLA service centre within 48 hours of decommissioning
S2	5 Minutes	4-6 Hours	This demands firstly, remote communication with the customer by the distributor technical team. Where this fails to resolve the fault, the distributor team will be requested to visit the customer location to resolve within MTTR
S3	5 Minutes	5-15 Minutes	Though this includes non critical components or service of the system. The expected Mean Time To Respond (MTTR) should be fast and qualitative.

#### 10. Root Cause Analysis

Where recurring incidents and major incidents are logged as a result of installation errors. The distributor team shall submit root cause analyses to ZOLA technical team. The ZOLA team shall call the distributor team for further training. If the recurring incidences continues, ZOLA shall penalize the distributor as deemed necessary.

Where the recurring incidents are logged as a result of the poor installation quality issues. Where the fault is investigated by ZOLA and proven to be a production quality defect by the ZOLA technical team. Such system shall be decommissioned for replacement by the distributor for proper technical diagnosis at the service centre. .ZOLA shall decide if to redeploy the repaired system or replace with a new system. The distributor shall be responsible for forward and reverse logistics where the system has been requested to be brought to the service centre.

#### **11. Authorized Replacements**

The distributor shall be given technical authorization for components replacement services. These components shall include the following only with remote support from the ZOLA technical operations or engineering team.

FLEX SPS

- FLEX SPS meter box
- Faulty FLEX P1 Inverter
- Faulty wall charger for the FLEX SPS
- FLEX solar PV modules
- Bundled lighting components for FLEX SPS

**INFINITY IPS** 

- IPS: IP4 + IX
- ISP
- Interface Panel
- Sub panel
- Electrical, RAW/engage cable and Q Cables

Distributors are not authorised to open or attempt to open the FLEX SPS meter box, the INFINITY IPS box or the proprietary inverter for any reason. Distributors found in violation risk losing the distributor partnership certificate and other penalties as deemed necessary by ZOLA may be meted against violators.

#### 12. Warranty and Out -of- Warranty

For systems and components confirmed faulty within warranty period. ZOLA Electric shall be responsible for diagnosis, repairs and testing. While the distributor will be responsible and accountable for forward and reverse logistics cost regardless of the product warranty status. Where such systems or components are diagnosed to be tampered with, such action voids the warranty clause in the agreement. The distributor shall be responsible for both forward and reverse logistics, full cost of the faulty component, replaced/repaired charges as the case may be and all related taxes within the operating country. A letter shall be sent to the erring distributor with applicable penalty for unauthorized tampering.

For out of warranty systems and components. The distributor shall be responsible for all corrective or recovery maintenance charges which includes spare parts, repairs charges, taxes and forward/reverse logistics charges.

Please check our warranty policy for comprehensive details for all requirements for warranty claims, warranty extension and warranty transfers etc. Visit warranty portal on our website.

#### 13. Allowable Spare Components Level

Distributors shall have between 5-10% spare components level of the total quantity of inventory purchased. This is to ensure that spare components are always available when needed. This would enhance prompt and reliable MTTR and ultimately enhance effective customer service.

#### 14. Distributor Installations Remote Monitoring Accessibility

Distributors shall be given access to remotely manage all installations within their cluster. The distributor shall be responsible for annual subscription of the software as a service (SaaS) cloud computing platform for first-hand remote monitoring. This service enhances proactive service deliverables at all times to their customers. The remote

monitoring capabilities gives access for system efficiency, performance monitoring and management. Where distributors fail to make subscriptions the SaaS platform will not be accessible.

#### **15. Service Centre Operations and Service Hours**

ZOLA Electric shall be responsible for the operations and management of the service centre. The service centre shall be responsible for L3 service support which includes the localized technical diagnosis, sensitive parts replacement, repairs, system refurbishment, post repairs system functionality tests and end-of-life systems management. It will support all certified distributors in ensuring prompt diagnosis and repairs of faulty systems complying with L3 support services.

The service centre operations shall be between 9am - 6pm daily excluding Sundays and some public holidays. Cost of forward and reverse logistics of systems/equipment deployment to the service centre shall be the responsibility of the distributor.

ZOLA customer service shall communicate the diagnosis report which will include cost of faulty components repairs/replacements, repairs charges, taxes etc. to the distributor within 36 hours of receival at the service centre.

Distributor will be expected to give consent for repairs within 24 hours by issuing an instruction to proceed (ITP) confirmation via email and phone communication. Where ITP is not communicated, repairs will be put on hold. Where ITP instruction is issued via email by the distributor. Repairs timeline is targeted for 72 hours post instruction to proceed (ITP). Where a delay is envisaged for any reasons that may lead to non-compliance to the 72 hours deliverable timeline. The ZOLA customer service shall communicate this ahead to the distributor with apologies.

#### 16. SLA Breach Penalty

The distributors HSE/QA compliance, installation and service performance shall be reviewed by ZOLA monthly. Where technical gaps or inefficiencies are identified or reported. ZOLA shall document and take the issue(s) up with the distributors in writing. demanding root cause analysis.

ZOLA shall request retraining for all distributor technical teams at the ZOLA office or online to further enlighten and empower the teams. Repeat offenders shall be penalized accordingly. Penalties shall range from 2-8weeks suspension for offenders, distributor reimbursing customers or ZOLA Electric for faults resolution and lastly suspension or termination of technical engagement agreement/certificate.

Description	Non- Alignment Description	ZOLA Action	Penalty
HSE Compliance	Reported non compliance to HSE guidelines onsite	Request HSE retraining for all team members	Request suspension of project lead. Recurrence shall lead to suspension of engagement contract.
Unauthorized tampering or attempted tampering of ZOLA products	Unauthorized opening of ZOLA products for any reason not approved or suggested by ZOLA .	Put in writing evidences of tampering or attempted tampering and mailto distributor	Termination of engagement contract.
Compromised energy audit report	Manipulation of audit report	Request retraining for other distributors team members	This shall lead to suspension of all involved. And recurrence shall lead to suspension of engagement contract
Delayed product deployment Installation, commissioning and poor quality deliverable	Installations not aligning with contractual deliverable timelines, shody installations leading to reworks or damage to customers; appliances, manipulations of components deployed for personal gains, non compliance to provided installation manuals	Review gaps, retrain distributor installation/QA team. Give final warning to distributor	Distributor to replace or reimburse customers for all damaged appliances. Recurrence shall lead to suspension of engagement contract
Inefficient Customer service	Poor customer engagement, unethical customer dealings, manipulation of CAT. Non-closure of installations/support services within contractual timeline	Review gaps, retrain distributor service team. Give final warning to distributor	Recurrence of poor services will attract suspension of partnership engagement certificate

## 17. SLA Sign-Off

ZOLA ELECTRIC Representative 1	ZOLA ELECTRIC Representative 2
Name:	Name:
Designation:	Designation:
Signature:	Signature:
Date:	Date:
Distributor Representative 1	Distributor Representative 2
Name:	Name:
Company:	Company:
Department/Unit:	Department/Unit:
Designation:	Designation:
Signature:	Signature:
Date	

I have read, fully understand the details of the service level agreement and I will fully comply.