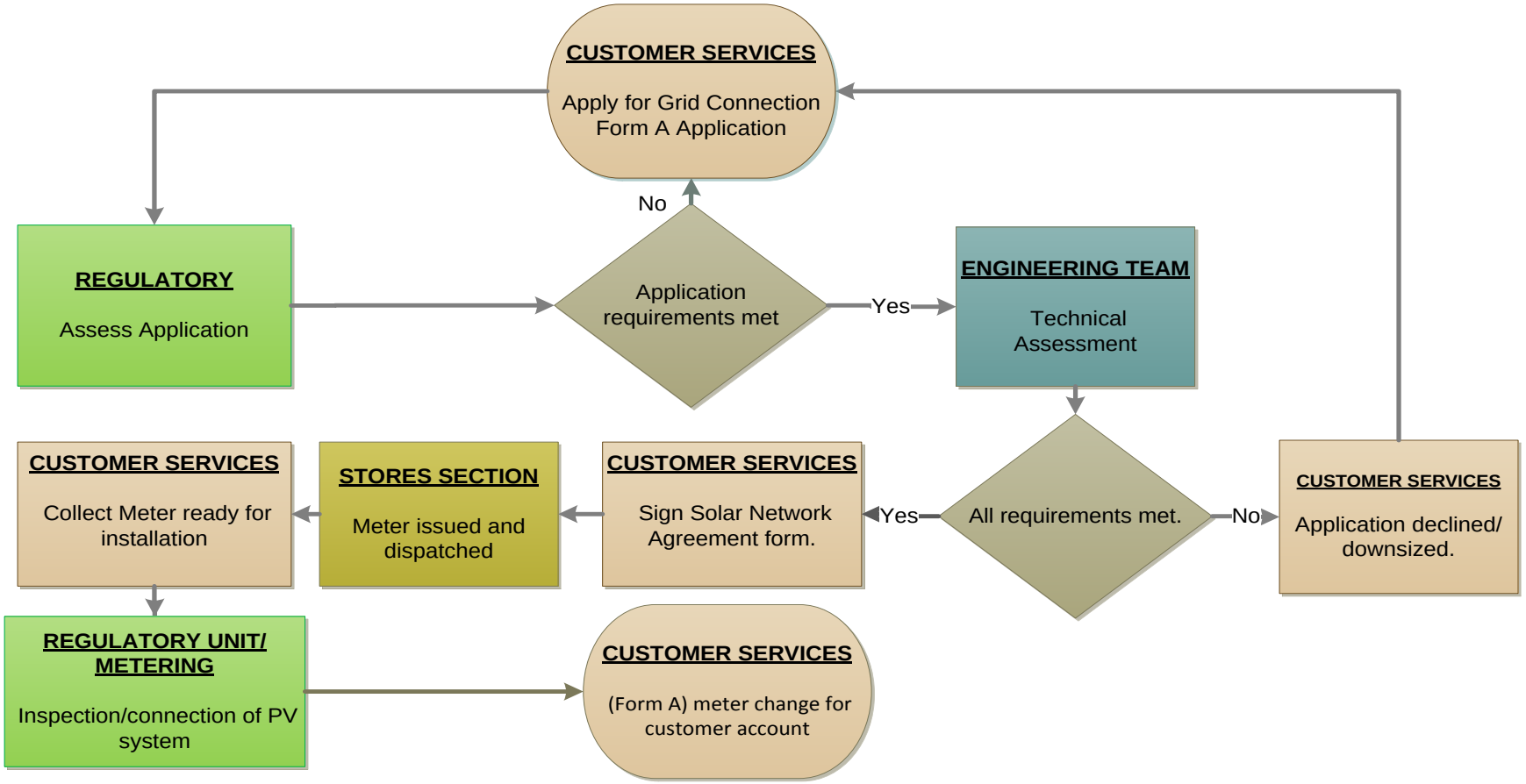
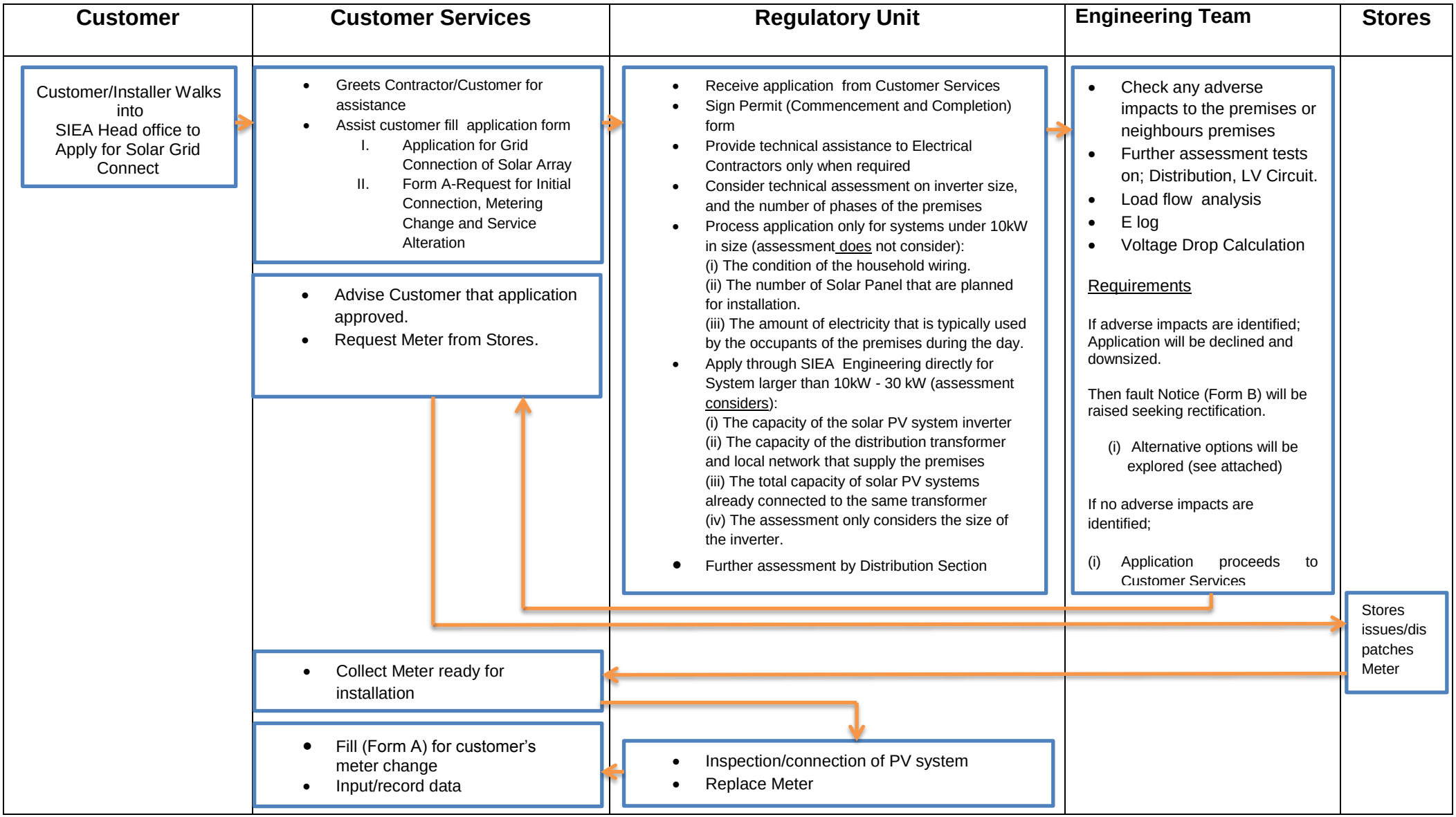
OVERVIEW PROCESS FOR SOLAR GRID CONNECT




Customer
Customer Services
Regulatory Unit
Engineering Team
Stores
Customer/Installer Walks into SIEA Head office to Apply for Solar Grid Connect
Greets Contractor/Customer for assistance
Assist customer fill application form
I. Application for Grid Connection of Solar Array
II. Form A-Request for Initial Connection, Metering Change and Service Alteration
Receive application from Customer Services
Sign Permit (Commencement and Completion) form
Provide technical assistance to Electrical Contractors only when required
Consider technical assessment on inverter size, and the number of phases of the premises
Process application only for systems under 10kW in size (assessment does not consider):
(i) The condition of the household wiring.
(ii) The number of Solar Panel that are planned for installation.
(iii) The amount of electricity that is typically used by the occupants of the premises during the day.
Apply through SIEA Engineering directly for System larger than 10kW - 30 kW (assessment considers):
(i) The capacity of the solar PV system inverter
(ii) The capacity of the distribution transformer and local network that supply the premises
(iii) The total capacity of solar PV systems already connected to the same transformer
(iv) The assessment only considers the size of the inverter.
Further assessment by Distribution Section
Check any adverse impacts to the premises or neighbours premises
Further assessment tests on; Distribution, LV Circuit.
Load flow analysis
E log
Voltage Drop Calculation
Requirements
If adverse impacts are identified; Application will be declined and downsized.
Then fault Notice (Form B) will be raised seeking rectification.
(i) Alternative options will be explored (see attached)
If no adverse impacts are identified;
(i) Application proceeds to Customer Services
Advise Customer that application approved.
Request Meter from Stores.
Stores issues/dispatches Meter
Collect Meter ready for installation
Fill (Form A) for customer's meter change
Input/record data
Inspection/connection of PV system
Replace Meter

Overview process for Solar Grid Connect

Step 1	**Customer Services (CSO)**
	• Greets Installer/Customer for assistance • Assist Installer/Customer to fill the Network application form I. Application for Grid Connection of Solar Array II. Form A- Request for Initial Connection, Metering Change, Service Alteration
Step 2	**Regulatory Unit**
	• Provide technical assistance to Installer only when required • Sign Permit (Commencement and Completion) form • Consider technical assessment on inverter size, and the number of phases of the premises • Process application only for systems under 10kW in size, (assessment does not consider): I. The condition of the household wiring. II. The number of Solar Panel that are planned for installation. III. The amount of electricity that is typically used by the occupants of the premises during the day. • Apply through SIEA Engineering directly for System larger than 10kW - 30 kW (assessment considers): I. The capacity of the solar PV system inverter II. The capacity of the distribution transformer and local network that supply the premises III. The total capacity of solar PV systems already connected to the same transformer IV. The assessment only considers the size of the inverter.
Step 3	**Engineering Team**
	• Check any adverse impacts to the premises or neighbours premises • Further assessment on system larger than 30kW • Assessment tests on; Generator, Distribution, LV Circuit. • Load flow analysis • E log

	• Voltage Drop Calculation • Requirements I. Reduce probability of transformer to enter net export feedback onto the feeder II. Ensure Feeder/Transformer peak load stabilizes at 75%-85% III. Avoid PV system share the same transformer IV. Upgrade number of phases to the premises to accommodate the desired inverter size • If adverse impacts are identified; I. Application will be declined and downsized. Then fault Notice (Form B) will be raised seeking rectification. II. Alternative options will be explored (see attached) • If no adverse impacts are identified; III. Customer will proceed with application
Step 4	**Customer Services**
	• Advise Customer that application approved. • Sign Network Agreement form • Request Meter from Stores
Step 5	**Stores Section**
	• Issues Meter to Customer Services
Step 6	**Customer Services**
	• Collect Meter ready for installation
Step 7	**Regulatory Unit/Metering Section**
	• Inspection/connection of PV system • Replace Meter
Step 8	**Customer Services**
	• Fill (Form A) for customer's meter change • Input and record data in the system