



Megapack Deployment Overview

This document provides an overview of the process, scope of work, and stakeholders required to fully commission a **Tesla Megapack system (Megapack)**. Tesla refers to this as the *deployment process*, which includes the period between the approval of the *Design Review Checklist* through the submittal of the signed *Commissioning Completion Form*. At the end of this process, the system is considered commissioned and ready to operate.

Using this process can help ensure that there is alignment on contractual milestones so that customers, contractors, and Tesla personnel can share a common reference in order to deliver a successful project. This process may also be used as a framework to create the specific project plan and timeline.

Tesla created the deployment process to expedite the commissioning timeline. Under this process, commissioning scopes are started as soon as the various dependencies have been completed. This process can provide several benefits, including:

- Faster reviews of completed work through collaboration and communication with Tesla during construction
- Improved construction quality
- Reduction of the amount of remediation work required throughout construction
- Real-time tracking and direct communication with Tesla of scope completion
- Positive benefit to long-term site reliability

NOTE: Project-specific timelines are subject to project specifics such as permit timelines, procurement, or construction timelines. Contact your Tesla representative for project-specific information.

Reference Documents

- *Megapack Deployment Checklists* - https://partners.tesla.com/home/en-us/content/download/megapack_deployment_checklists.zip
- *Megapack Design Review Checklist* - https://partners.tesla.com/home/en-US/content/download/Megapack_Design_Review_Checklist.pdf
- *SCADA Design Manual* - https://partners.tesla.com/home/en-US/content/download/SCADA_Design_Manual.pdf
- *Megapack 2 Design and Installation Manual* - https://partners.tesla.com/home/en-US/content/download/Megapack_2_Design_and_Installation_Manual.pdf
- *Megapack 2 XL Design and Installation Manual* - https://partners.tesla.com/home/en-us/content/download/megapack_2_xl_design_and_installation_manual.pdf



Stakeholders

This document defines the key stakeholders in this process using the following names and roles:

Stakeholder	Role
Customer	Purchaser of Megapack.
Facility Manager	Owner of the property on which the system is installed.
Construction Manager	Lead in charge of completing the entire Megapack installation. Also serves as the default point of contact for site access, unless otherwise notified by the customer.
Tesla Project Engineer	Tesla engineer responsible for reviewing site design and working with the construction manager to complete the deployment process.
Tesla Megapack Support	Tesla Customer Support for Megapack.
Tesla Field Service Technician	Tesla employee or Tesla-approved contractor trained to commission and service Megapack.
Tesla Account Manager	Tesla representative responsible for the <i>Commissioning Completion Form</i> .

NOTE: This document is written for projects for which Tesla is not responsible for construction. For “turnkey” projects for which Tesla manages construction, Tesla may perform roles attributed to the Construction Manager and/or Customer in this document. The detailed split in responsibilities is defined in the project *Scope of Work* document that forms part of a turnkey project contract.



Deployment Process

To facilitate deployment by both type of equipment and the equipment's corresponding phase of deployment, the deployment process is arranged by equipment category as well as by deployment phase.

WARNING: Commissioning requires Tesla to perform test charging and discharging of the system. If there are restricted times or conditions during which this can occur, notify Tesla prior to energization.

NOTE: Prior to Megapack delivery to the job site, Tesla should be made aware of the estimated project schedule and the anticipated substantial completion date.

Process by Equipment Category

These are the categories of deployment according to type of equipment involved:

- **Site:** This category covers the civil scope, transformers, and metering equipment
- **Megapack:** This category is dedicated to equipment specific to the Megapack enclosures
- **SCADA:** This category encompasses auxiliary power, network, SCADA, and IT security equipment

Process by Deployment Phase

The deployment process is also aggregated through three major deployment phases:

- **Mechanical:** Once completed, the project has achieved **Mechanical Completion**
- **Energization:** Once completed, the project has achieved **Energization Completion**
- **Configuration and Commissioning:** Once completed, the project has achieved **Commissioning Completion**



General Process Steps

Checklists are to be completed in order according to a general process as outlined below:

1. Begin project-specific planning during the design phase, with the Tesla Project Engineer providing input on which checklists (see Checklist Overview) are broadly applicable.

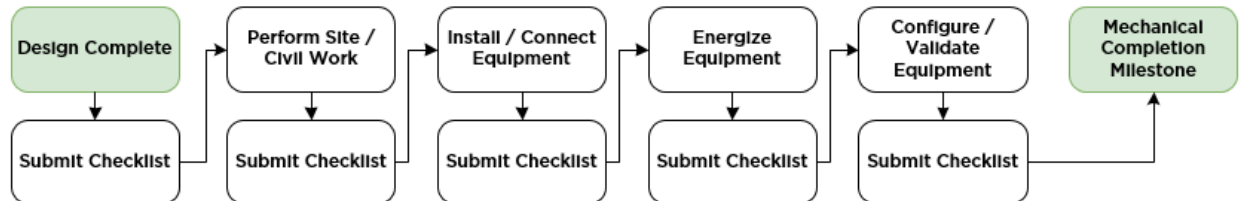
NOTE: For projects of up to 4 Megapacks, you may bypass this step and choose the checklist suite for small projects (see Checklist Overview), with notice in advance provided to the Tesla Project Engineer.
2. Before construction starts, the Tesla Project Engineer, Customer, and Construction Manager meet to finalize the plan and discuss the exact scope and proposed schedule.
3. As checklists are completed, the Construction Manager provides the Tesla Project Engineer with the checklists.
4. The Tesla Project Engineer manages the submitted checklists, and with the support of other Tesla project team members, provides feedback to the Construction Manager.



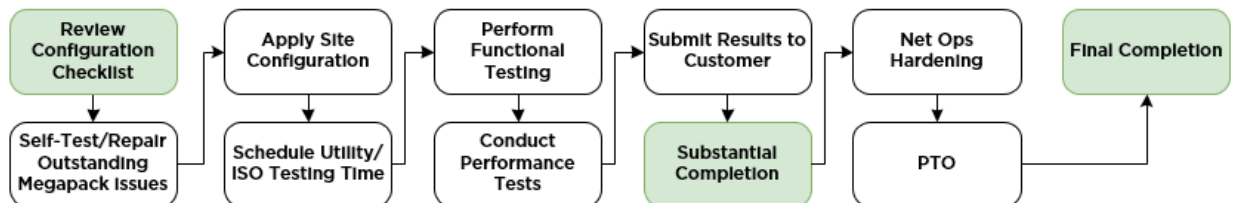
Additional Site Testing

Once Mechanical Completion has been achieved, the project may require site testing and hence an additional step to the process. When this is required, the Tesla Project Engineer, Customer, and Construction Manager should meet to finalize the plan and discuss the exact scope and proposed schedule across these phases, with a process flowing as outlined below.

Mechanical Completion



Site Testing





Checklist Overview

Below is the complete list of checklists as delivered in the *Megapack Deployment Checklists* archive. Individual checklist filenames express the following:

- Initial letter indicates the **deployment phase** with which the checklist is associated:
 - o M = Mechanical
 - o E = Energization
 - o C = Configuration and Commissioning
- Initial word indicates the **equipment category**:
 - o Site
 - o Megapack
 - o SCADA
- Remainder of filename indicates the **focus of tasks** in the checklist

NOTE: Not every checklist described below will be required on every project. Tesla may, at our discretion, not require certain non-applicable checklists depending on project needs and conditions.

Table 1: Megapack Deployment Checklists by Phase

Equipment Category	Filename	Checklist Focus
Small Projects (All Phases)		
All	SP_Small_Projects_Checklist_Suite.pdf	Minimum suite of checklists required for small projects combined into one file.
Mechanical Completion Deployment Phase		
Site	MG_Site_General_Information_Checklist.pdf	Record of general site information and contacts
Site	MI_Civil_Mechanical_Completion_Checklist.pdf	Foundation and structural anchoring
Site	ME_Meter_Mechanical_Completion_Checklist.pdf	Installation of the meter
Site	MS_Site_Mechanical_Completion_Checklist.pdf	General project information and site conditions
Site	MT_Transformer_Mechanical_Completion_Checklist.pdf	Installation of the transformer
Site	MN_Grounding_Transformer_Mechanical_Completion_Checklist.pdf	Installation of the grounding transformer
Site	MV_Medium_Voltage_Mechanical_Completion_Checklist.pdf	Installation of medium voltage cable system
Megapack	MM_Megapack_Mechanical_Completion_Checklist.pdf	Installation of the Megapack
SCADA	MX_Auxiliary_Power_Panel_Mechanical_Completion_Checklist.pdf	Installation of the meter
SCADA	MF_Field_Network_Enclosure_Mechanical_Completion_Checklist.pdf	Installation of the field network enclosure
SCADA	MA_SCADA_Mechanical_Completion_Checklist.pdf	General SCADA equipment installation
SCADA	MU_Security_and_Access_Mechanical_Completion_Checklist.pdf	Installation of the security and access components
SCADA	MC_Standard_Tesla_Site_Controller_Enclosure_Mechanical_Completion_Checklist.pdf	Installation of the enclosure



Equipment Category	Filename	Checklist Focus
Energization Completion Deployment Phase		
Site	ET_Transformer_Energization_Completion_Checklist.pdf	Transformer pre-energization validation, required to be completed prior to transformer energization
Megapack	EM_Megapack_or_Megapack_Block_Energization_Completion_Checklist.pdf	Validation of Megapack or Megapack blocks prior to energization
SCADA	EF_Field_Network_Enclosure_Energization_Completion_Checklist.pdf	Validation of field network enclosure completion prior to energization
SCADA	EA_SCADA_Energization_Completion_Checklist.pdf	Validation of SCADA completion prior to energization
Configuration and Commissioning Completion Deployment Phase		
SCADA	CN_Networking_Commissioning_Completion_Checklist.pdf	Validation that the network had been configured and is functioning
SCADA	CO_Other_SCADA_Commissioning_Completion_Checklist.pdf	Validation that other miscellaneous SCADA tasks have been completed
SCADA	CD_SCADA_Devices_Commissioning_Completion_Checklist.pdf	Validation that other SCADA devices have been configured and tested
SCADA	CT_Tesla_Remote_Connection_Commissioning_Completion_Checklist.pdf	Validation that the Tesla Remote Connection is ready for Tesla use



Appendix A: Megapack Process Details

Step 1: Megapack Arrives on Site

The Construction Manager is responsible for moving the Megapack from the trailer to the foundation. Once the Megapack has been placed on the foundation, the Construction Manager should notify the on-site Tesla representative and provide an estimated Megapack mechanical completion date.

Step 2: Health Check Phase

The Construction Manager must provide daily notifications to Tesla to communicate days in which Megapacks will not have work planned in the unit, and which are therefore available to Tesla. Tesla will then take control of the available Megapacks for the rest of the day. While Tesla controls the Megapack, the enclosure must not be opened unless directed by Tesla personnel. Tesla will remotely connect to a given Megapack and complete a health check. During these tests, fans and other components will be tested. Noise is normal and to be expected for the duration of the health check. This check allows Tesla to confirm the health of internal components, which will allow Tesla to identify any issues and plan service visits during the project's construction to remediate any discovered issues.

Tesla will provide feedback and help re-assess at the end of the day to inform the next day's activities, but will defer to on-site construction needs as determined by the Construction Manager.



Revision History

Revision	Date	Description
1.2	December 7, 2022	- Added SP Small Projects Checklist Suite - Added MG Site General Information Checklist - Added MV Medium Voltage Mechanical Completion Checklist - Added MN Grounding Transformer Mechanical Completion Checklist
1.1	August 26, 2022	- Added noise testing statement - Updated flow diagram
1.0	April 22, 2022	Initial revision