

# Hitachi Energy Vendor 3D Modeling Requirements

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PREPARED BY Gaurav Kenekar	STATUS Draft	SECURITY LEVEL Internal		
APPROVED BY	APPROVAL DATE			
OWNER Jeff Brausen	DOCUMENT KIND Guideline			
TITLE Hitachi Energy Vendor 3D Modeling Requirements				
OWNING ORGANIZATION	DOCUMENT ID	REV. A	LANG. en	PAGE 1/3
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# 1 Overview

Define the requirements and delivery methods of 3D CAD data for tender and project execution.

## 1.1 Applicability and Scope

This applies to and will be considered for all vendors participating in Hitachi Energy GPQS NAM tenders and projects.

Note that Hitachi Energy is in process of implementation a BIM digital philosophy. Collaboration may include delivering within Hitachi Energy BIM environment.

## 2 Key terms and abbreviations

1. CAD – Computer Aided Design
2. BIM – Building Information Modeling
3. CDE – Common Data Environment
4. LOD – Level of detail
5. LOI – Level of Information

## 3 Types of components

This is the list of major equipment scope but not limited to;

Capacitor Bank
Circuit Breaker
Circuit Switch
Disconnect Switch
Filter Bank
GIS
Instrument Transformer
Insulator
Pass
Reactor
Recloser
Surge Arrester
Switchgear
Synchronous Condenser
Transformer
Voltage Regulator
Wave Trap

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## 4 Tender deliverable

Definition of Tender deliverables (minimum requirements)				
	Item	Format	Level of Information	Level of Detail
1	Model	Revit 2020 (native) family	LOI 200	LOD 200
	Drawing	Revit 2020 and PDF		
2	Model	SolidWorks 2020 (native) part		
	Drawing	SolidWorks 2020 and PDF		
3	Model	Parasolid		
	Drawing	PDF		
LOD 200: General size, shape and spacing. Internal components to be hidden/suppressed to protect intellectual property and for performance.				
LOI 200: Material properties to align with physical component. Metadata to consist of but not limited to, name of item, manufacturer and quote number.				
Collaboration: Deliverable data to be sent to the tendering manager.				

## 5 Project Execution Deliverable

Definition on Project Execution deliverable (Minimum requirements)				
	Item	Format	Level of Information	Level of detail
1	Model	Revit 2020 (native) family	LOI 350	LOD 350
	Drawings	Revit 2020 & PDF		
2	Model	SolidWorks 2020 (native) part		
	Drawings	SolidWorks 2020 and PDF		
3	Model	Parasolid		
	Drawings	PDF		
LOD 350: Exact size, shape and spacing and fully featured. Internal components to be hidden/suppressed to protect intellectual property and for performance. Material properties to align with physical component.				
LOI 350: Metadata to consist of but not limited to, name of item, dimension, drawing no, manufacturer, material, PO number, project name/number.				
Collaboration: Please reference the PO for deliverable of data process. If CDE is established, deliverable via CDE is required.				

## 6 Revision History

Rev.	Description	Date
A	Initial release-Approved by Director of Engineering	6/20/2022

STATUS	SECURITY LEVEL	DOCUMENT ID	REV.	LANG.	PAGE
Draft	Internal		A	en	3/3