

		Building Department Policies and SOP's	
Document Type:	Operational Policy	Implementation Date:	08/14/2025
SOP#:	321.01	Last Reviewed/Update Date:	08/14/2025
Adopted Code:	2021 IRC/2020 NEC	CBO Approval:	B Abbey
Residential Solar Plan Review Checklist			

1. Purpose

The Bozeman Building Division provides this checklist as the minimum requirements for completing the plan review process. Please be aware that, with the constantly evolving solar industry, including new methods and products, these items may need to be updated and adjusted for accepted practices.

The following checklist applies only to residential roof-mounted projects built under the IRC building code. It shall not be used for IBC projects.

If the service panel must be replaced to support the installation of the solar system, it will require an additional separate electrical permit.

These guidelines are subject to rapid changes in the solar installation industry and manufacturers' specifications; there may be additional required items.

2. Submission Checklist

All the following must be provided for the plan review process. Without all these items, your solar permit application will be deemed insufficient and will not be accepted for review.

1. A completed building permit application. (R105.3) Note: verify the primary address and homeowner
2. Cover sheet (R106.1)
 - List contact information for all parties. This includes the owner, designer, solar contractor, engineer, and the electrician.
 - Property address on all sheets and documents
 - Sheet index with the correct plan sheet in its order.
 - List all the adopted building codes the work is required to comply with.
 - Scope of work to be done.
3. Site plan (R106.2)
 - Drawn to scale
 - Structure location with distances to property lines.
 - Location of the electrical service panel

A – 20 East Olive	M – P.O. Box 1230 Bozeman, MT 59771-1230	P – 406.582.2375	www.bozeman.net
-------------------	---	------------------	-----------------

THE MOST LIVABLE PLACE.

Document Type:	Operational Policy	Implementation Date:	08/14/2025
SOP#:	321.01	Last Reviewed/Update Date:	08/14/2025
Adopted Code:	2021 IRC/2020 NEC	CBO Approval:	B Abbey

Residential Solar Plan Review Checklist

- Distance between the service panel and the rapid shutdown and the property line showing the required 3' working distance. (NEC 110.26)
- 4. Roof Array
 - The roof's solar layout plan.
 - Back Storage systems shall require additional review by the Bozeman Fire Department.
 - Provide the solar array mounting system with its manufacturer's installation manual. (NEC 110.13 & IRC R801.2)
 - Any additional roofing items the engineer has required in their assessment documentation.
- 5. An engineer's letter stating the roof can support the new solar panel system.
 - a. Or, if it is a newer home, the truss manufacturer's design package showing the trusses were designed for future solar system roof loading. (IRC R801.2)
- 6. Warning Labels: Provide all the required warning labels and their designated locations to be placed. (NEC 690.13(B), 110.21(B), 110.22)
- 7. All component and equipment testing lab listings and manufacturers' installation manuals are provided as documents. (R106.1.1 as required in the plan application submittal by the Chief Building Official)
- 8. Line schematic showing:
 - All wire types and sizes. (NEC Article 310), (705.10(B))
 - Location of all connection points. (NEC 705.11, 705.12)
 - Ampacity ratings for wires and components (the designed loads). (NEC Article 130)
 - De-rating and load applied to the conductors. (NEC 690 Part II)
 - All equipment, including the AC disconnect.
 - Minimum overcurrent calculation. (NEC 690.8)
 - Maximum overcurrent protection for the bus bar. (NEC 705.12(B), (705.10, 690 part II)
 - Provide the complete ground path with the type of wire and their sizes (NEC 690.43 & 690.47, 705.28 per 250.24)
 - Conduit type and sizes (NEC Article 310), and the correct conduit table in Chapter 9 – Appendix C)
 - Disconnecting means (NEC 705.20, Article 690, Part III)

Document Type:	Operational Policy	Implementation Date:	08/14/2025
SOP#:	321.01	Last Reviewed/Update Date:	08/14/2025
Adopted Code:	2021 IRC/2020 NEC	CBO Approval:	B Abbey

Residential Solar Plan Review Checklist

- Load-Side Source Connections (NEC 705.12), provide the connection method found in Section 705.12 that will be used with the required calculations. 705.12B2 Taps, 705.12B3 Busbars
- Supply-side source Connections (NEC 705.11)

3. References

Current adopted code cycle

- 2021 International Residential Code
- 2020 National Electric Code
- State of Montana Model Codes

4. Modifications

- Revisions, modifications, or exceptions to this SOP are to be determined by the Chief Building Official on a case-by-case basis and shall not impede the requirements of the State-adopted Building Codes.
- Review and revisions shall occur regularly or when newly adopted State Building Code cycles take effect.