

Disclaimer

This PPT Manual is frequently revised.

Please use the web version **only**,
To ensure the most up-to-date information.

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- Welcome and Introductions (Slide 4)
- Navigating the Portal (Slide 8)
- Interconnection Application Process (Slide 15)
- Regulatory/Tariff Resources (Slide 65)

Welcome to the Virtual MN Rooftop Solar Interconnection Process Training

Goal: To provide installers and developers with the information to complete Xcel Energy's interconnection application process in the new portal, in a timely manner with little to no errors or delays.

Achieving the above goal will aid in meeting or exceeding our customer's expectations, in terms of interconnection timelines, resulting in an overall increase in customer satisfaction.

What Can I Learn From This Training?

- New Installers: Familiarize yourselves with the basics of the interconnection application process, and find answers to common questions
- Current Installers: Continue your education, learn about best practices and familiarize yourself with the new portal

Didn't get a personal invite? Email SolarprogramMN@xcelenergy.com and ask to be added to the Distribution List.

Team Introductions

- MN Solar Program Mgmt.
 Team
 - Callie Walsh, Program Manager
 - Alex Nordlund, Marketing Assistant

SolarprogramMN@xcelenergy.com

- Internal Team Players
 - Design/Construction
 - Builders Call Line
 - Metering
 - Engineering
 - Billing
 - BSC (Business Solutions Center)
- External Industry Team Players
 - Developers/Installers
 - Customers
 - Financers
 - Government/Regulators

Informational Sessions with Program Team

- Webinars set up to demonstrate the program process and explain different stages
- Office Hours to walk installers through the process and answer any questions
- Interested in Bi-Weekly Phone Calls?
 - Coordinate with the Program team (SolarProgramMN@gmail.com)
 - Purpose: Discuss program and project specifics with Xcel Energy's Program team

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Navigating the Portal

What is a Case?

- Each Application will have a Case #
 - OIDs still exist for legacy applications, but not for newly created applications

- Replacing Legacy Steps
 - Each case will have a:
 - Status, Step, and Sub-Step
 - Each "Status" i.e. Program Approval, will have a corresponding Step, and Sub-Step

For each "Action Item"

Open

On Installer/Developer to complete

Draft

Installer/Developer has completed but not yet submitted

Finalized

Action Item has been submitted to Xcel Energy for review

How do I e-Sign?

- We use Sertifi E-contracts
- E-Signatures will be routed to you via email. Review the chart on the following slide to see where each e-Sign requirement is routed.
- Once complete, you will need to refresh the application page for the "Action Item" to update to "Draft"

- **Important Note: App Agent and Customer emails must be different for e-signing
 - Some docs go to App Agent for signature, some to Customer for signature - these cannot be combined and signed by the same email

e-Sign

Status	Action Item	Document Name	Routed to
Program Approval	Program Approval eSign	Interconnection Application Summary eSign	Customer
Initiate Application	Initiate Application eSign	MN Engineering Process Fee eSign	App Agent (Installer)
Initiate Application	Initiate Application eSign	Solar*Rewards Acknowledgement Letter	Customer
Supplemental Review	Supplemental Review SOW eSign	Supplemental Review SOW eSign	App Agent (Installer)
System Impact Study (Rare)	System Impact Study eSign	System Impact Study SOW eSign	App Agent (Installer)
System Impact Study (Rare)	System Impact Study eSign	System Impact Study Agreement	App Agent (Installer)
Transmission Study (Rare)		Transmission Study SOW	App Agent (Installer)
Facility Study (Rare)	Facilities Study eSign	Facilities Study SOW	App Agent (Installer)
Interconnection Agreement	Interconnection Agreement eSign	MNDIA / MRETs Form / Uniform Statewide Contract	Customer
Interconnection Agreement	Interconnection Agreement eSign	Net Metering & Solar*Rewards Contract	Customer / App Agent (Installer)

E-Payments

E-Payments can take up to 48 hours to be received

 Once payment has been received that action item will change from Open to Draft in the portal

How to Upload Non-Action Specific Files

 To upload a file not associated with a specific action, send it as an email attachment to the Program Team, SolarProgramMN@xcelenergy.com. **Xcel** Energy®

Interconnection Application Process

Overview of Case "Status"

Status in the Portal

- Pre-Application
- 1. Program Approval
- 2. Initiate Application
- 3. Initial Engineering Screens
- 4. Supplemental Review
- 5. System Impact Study
- 6. Transmission Impact Study (rare)
- 7. Facilities Study
- 8. Interconnection Agreement
- 9. Design and Construction
- 10. Metering and Testing
- 11. Permission to Operate

Relation to Pre-MNDIP Process and Legacy Portal

- Replaces the old "Capacity Screens" and the paper forms for pre-applications
- These two combined are the first four tabs of the old portal (Start, Contacts, System Details, Docs & Payments)
- Engineering Review
- Facilities Study incorporates initial Design processes prior to Interconnection Agreement
- Final Information
- Meter Installation

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- Snap-shot of estimated system details before formally applying
- Check first:
 - Map of MN Service Territories
 - Interactive Hosting Capacity Map
 - Public Interconnection Queue
- \$300 Processing Fee
- This process is done 100% on the portal
 - No physical or PDF documents need to be mailed nor emailed in
 - Payments are made online
- Results will be provided in 15 business days

Pre-Application Disclaimer

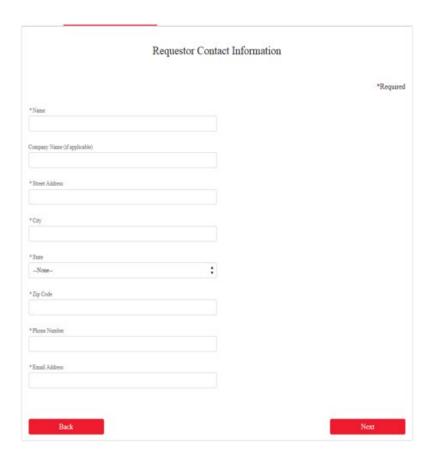
* The capacity screen data only includes existing data. A request for a capacity screen does not obligate Xcel Energy to conduct a study or other analysis of the proposed DER in the event that data is not readily available. If Xcel Energy cannot complete all or some of a capacity screen report due to lack of available data, Xcel Energy will provide the Interconnection Customer with a capacity screen report that includes the data that is available. The provision of information on "available capacity" does not imply that an interconnection up to this level may be completedwithout impacts since there are many variables studied as part of the interconnection review process. The distribution system is dynamic and subject to change, and data provided in the capacity screen report may become outdated at the time of the submission of the complete Interconnection Application. Xcel Energy will, in good faith, include data in the capacity screen that represents the best available information at the time of reporting.

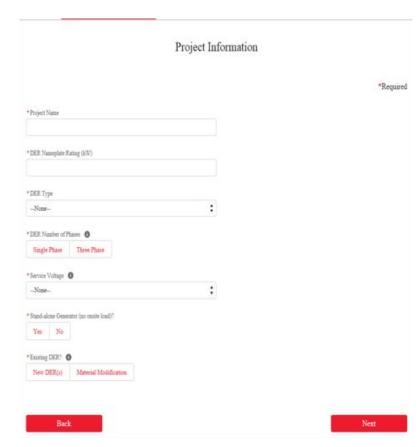


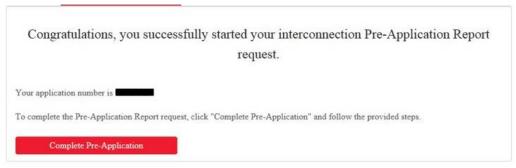
Pre-Applications can be found on the homepage next to the Application tab

First Pre-App Screen

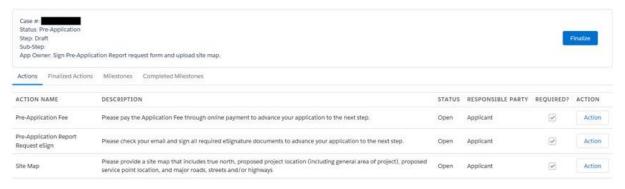
Second Pre-App Screen







Click Complete Pre-Application to move into the Widget and see your required Action Items



Please see Milestones tab for deadline.

- Once your Action Items are complete, they will move from Open to Draft status.
- Then click Finalize to submit the Pre-Application (can't be submitted without finalizing)

- In the portal you will see your Pre-application is now in Review
- All notifications will be sent to the email previously input
- Results will live and be accessible in the portal



Please see Milestones tab for deadline.

Additional Pre-Application Details

- Pre-Applications are indicative, and not a comprehensive study-ready view of a substation.
 - To offer that type of thorough investigation would not be possible in the 15-day timeline and at the \$300 cost for Pre-Applications.
- Pre-Applications are not typically be able to discern any feeder level upgrades or capacity due to voltage rise
 - This type of limitation is not something that shows up in a Pre-Application.
- Missed generation on a Pre-Application does occur from time to time, and we have communicated with the workgroup and developers as to the level of rigor and completeness to expect.
- As a matter of program practice, non-comprehensive Pre-Applications are not grounds for a refund of
 your Interconnection Study costs. Interconnection studies are tied to a specific application, PreApplications are a more general view and are not tied to a specific application, this complicates the idea
 of notification during the study process if additional generation is discovered.
- We have worked to investigate industry practices, and the level of accuracy and detail we provide in our Pre-Applications is in line with industry norms.
- The level of accuracy and detail provided by Pre-Applications has been thoroughly discussed and explored through the workshops creating the Minnesota Distributed Energy Resources Interconnection Process, which was approved by the MN PUC on April 19, 2019, and took effect June, 2019.

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Start a new Interconnection Application

*Select State



Minnesota

*Select Program Type







Solar*Rewards

Solar*Rewards Community

Distributed Generation

Applying Online

You will need to know the address of the DER location and customer name to begin your application

Status 1. Program Approval

- "Step" will be:
 - Draft on Installer to complete Action Items
 - eSign Installer to eSign Deposit form and Customer to sign Application Summary
 - In Review with Xcel Energy
 - On Hold Installer to provide additional items

Program Approval "Action Items"

- Contact Information Input
- Proof of Site Control Upload (if applicable)
- System Details Input (Basic Details)
- Application Details Input (Technical Details)
- Your track is based on the system size and your meter status as a residential or commercial customer

Contact Information for DER Systems

Interconnection Customer

- (Customer Contact/System Owner)
- This is where you enter the entity (Individual or Company) owner of the DER System
- JohnDoe@email.com

Application Agent/Company

- This is where you enter the Primary Application Manager's (PAM) contact information
- First.Last@company.com
- Email address for Interconnection Customer and Application Agent must be different

Your contact information has been saved

 Navigate back to application page, refresh for the Action Item's Status to update from "Open" to "Draft"

Contact Information Location

Actions	Finalized Actions	Milestones	Completed Milestones	Application Details
> App	lication Informat	ion		
> Cust	tomer Informatio	n		
> App	lication Agent/Co	ompany Info	ormation	

Proof of Site Control

- See MNDIP Section 1.7
 - Sheet No. 10-180

Application Details

- Review to make sure "<u>Customer Information</u>" reflects the owner of the premise/property
- Review to make sure "<u>Application Agent/Company</u> <u>Information</u>" reflects the Primary Application Manager

Program eSign / Approval

1. Program Approval eSign

Customer signs Application Summary form - eSignature

2. Submit for Program Approval

- Customer must be account/premise owner
- 120% rule check for Solar*Rewards and systems greater than
 40 kW AC
- Proof of Site Control

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Status = Initial Application

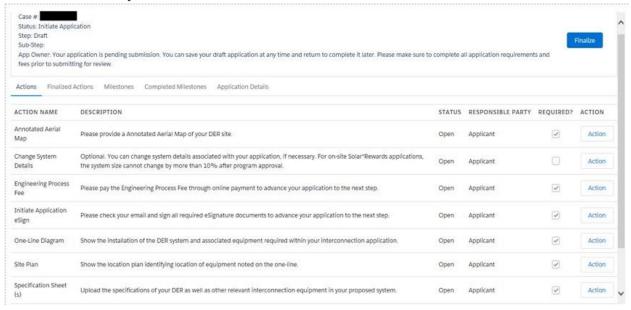
- "Step" can be:
 - Draft on Installer to complete Action Items
 - In Review with Xcel Energy
 - On Hold Installer to provide additional items
 - Complete Application is "deemed complete," queue date and position is established, and application will be routed by Xcel Energy to the next appropriate Step

Initiate Application – "Action Items"

- 1. Engineering Process Fee ePayment
- 2. Initial Application eSign eSign
 - Engineering Process Fee SOW
 - Email routed to "Applicant Agent"/Company
- 3. (DER Generator) Specification Sheet(s) Upload
- 4. Site Plan Upload
- 5. Single-Line Diagram Upload
- 6. Witness Test Procedure Upload
- 7. Documentation of Protection/Control Schemes Upload
 - (Usually covered in Single-Line diagram)
- 8. Annotated Aerial Map Upload

Initiate Application – Next Steps

Once all required actions are in "Draft" status, click Finalize.



Xcel Energy will review for completeness

Initiate Application

- Xcel Energy will review for completeness and Approve or Reject with comments on required changes within 10 business days
- Once approved, System is <u>"Deemed Complete"</u>
 - Queue position established
- Xcel Energy will route for engineering screens and/or study

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Initial Engineering Screens

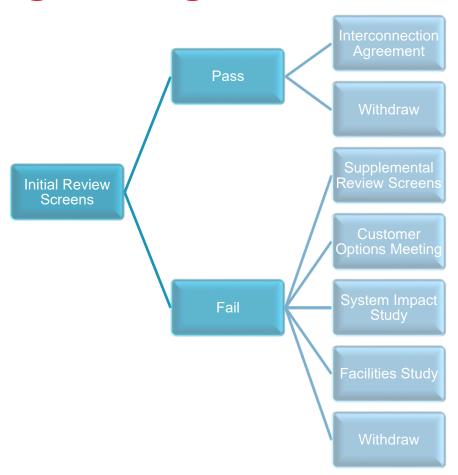
- Cost covered within "Engineering Process Fee"
- 15 business days for results
- PDF results will be provided into Portal

- *Optional: "Customer Options Meeting"
 - To go over Initial Review Results
 - Contact <u>SolarprogramMN@xcelenergy.com</u> to schedule
 - Recommend by-passing and going right into "Supplemental Review" to speed up the process, if desired

Initial Engineering Screens

- Available "Steps":
 - In Review
 - <u>Sub-Step:</u> Engineering Screens (Fast)
 - Pending Applicant Decision (you have 10 business days to proceed with one of the provided options)
 - Possible Options depending on results of project:
 - Supplemental Review Screens
 - System Impact Study
 - Facilities Study
 - Customer Options Meeting
 - Withdraw

Initial Engineering Screens



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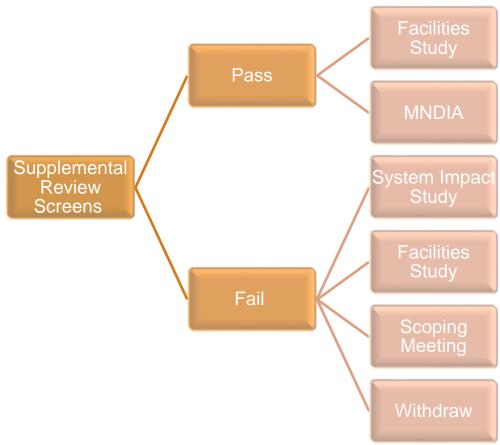
Supplemental Review

- Step: "Draft"
 - Action Items:
 - Supplemental Review Fee ePayment
 - Supplemental Review SOW eSign eSign
 - Email routed to "App Agent"
- Provide both within 15 business days
- Once Finalized, Step will update to "Submitted"

Supplemental Review

- Step: "Submitted"
 - Xcel Energy will provide results within 30 business days
- Steps: "Failed Supplemental Review"
 - Sub-Step: "Pending Applicant Decision"
 - Your application may also be pushed automatically to "Facilities Study"
- If your project passes review, next step is either:
 - Interconnection Agreement / MNDIA

Supplemental Review Options



- Pre-Application
- Program Approval
- 2. Initiate Application
- 3. Initial Engineering Screens
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System Impact Study

- Step: In Review
- Action Items:
 - System Impact Study eSign
 - SOW and Agreement
 - System Impact Study Fee
- Step: Submitted
 - Xcel Energy will provide results within 30 business days
 - Results will be available in the Portal

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Facilities Study

- Facilities Study required if any upgrades or construction is needed (this study will determine the cost estimates)
- Action Items:
 - Facilities Study eSign
 - SOW and Agreement
 - Facilities Fee
- Step: Draft
 - Xcel Energy will provide results within 45 business days
 - Results will be available in the Portal

Facilities Study

- Facilities Study Results Provided
- Facilities Study Results Meeting
 - Can only be omitted if mutually agreed upon (in the portal) between both developers & Xcel
 - Can provide comments on the Facilities Study Report Draft
 - Via DER Facility Study Customer Comments (downloadable page)
 - Comments are optional
- IA issued by Xcel within approximately 15 business days if you provided written comments (5 business days if you did not)

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Interconnection Agreement(s) / MN DIA

- Xcel Energy will provide the Interconnection Agreement within 5 business days
- Once available, you will have 30 business days to eSign the IA and provide payment (if applicable)
 - IA payment is *not* an e-payment. It will need to be submitted via check or wire.

Xcel Energy will counter-sign within 5 business days

Wire/Check Payment Directions

*Only necessary for projects with construction/meter costs

Paying by Wire:

Bank: Wells Fargo Bank, N.A.

City/State: San Francisco, CA

Routing/ABA: 121-000-248

Acct. No: 31966

Acct. Name: NSPM

Paying via Check:

Xcel Energy

Customer Receivables

Solar*Rewards Community MN

P.O. Box 59

Minneapolis, MN 55440-0059

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Design and Construction: In the Portal

Documents Pending

- Installer/App Agent to complete Action Items
 - Certificate of Completion/Final Electrical Inspection
 - Proof of Insurance
 - Installation Details
- All items need to be in "Draft" to "Finalize"
- Submit <u>early</u> in event of multiple review rounds

In Review

 Action Items in review by Xcel Energy. Upon approval, the program will move your application forward to Metering & Testing.

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Metering and Testing – Call Meter Shop

- Upon entering this status and receiving the notification email:
 - Simplified applications Meter order ready immediately.
 - Fast Track/Study applications Meter order ready within 24 hours
- Coordinate with the Metering Shop (1-800-422-0782) to arrange a time to schedule meter install and perform the witness test.

Metering and Testing

- Energization: Xcel Energy allows system to be temporarily turned on prior to scheduled meter install to allow for testing of equipment.
- Acceptance Test: Installer/Electrician performs approved acceptance test procedure, which includes three phase and single phase, as well as complete site review and verification.
 - Simplified Projects: Witness Test and Meter Install can be scheduled within 10 business days
 - Fast Track / Study Projects: For three-phase systems, Witness Tests and Meter Install is typically scheduled 3 weeks out (or more)

Metering and Testing

- On the day of your Acceptance Testing, there will be verification by Xcel Energy of the items detailed at xcelenergy.com/HowToInterconnect under Technical Resources, Commissioning
- This list is not comprehensive but touches on each of the primary points.
- Further requirements are detailed in our <u>engineering blue</u>
 <u>book</u> and further items may be required by local authorities.

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Permission to Operate

- In order to achieve **Permission to Operate (PTO)**, installers/electricians must successfully perform acceptance testing of the solar system and receive site verification approval from the area engineer.
- PTO email will automatically be sent to the Customer email and App Agent email

Permission to Operate

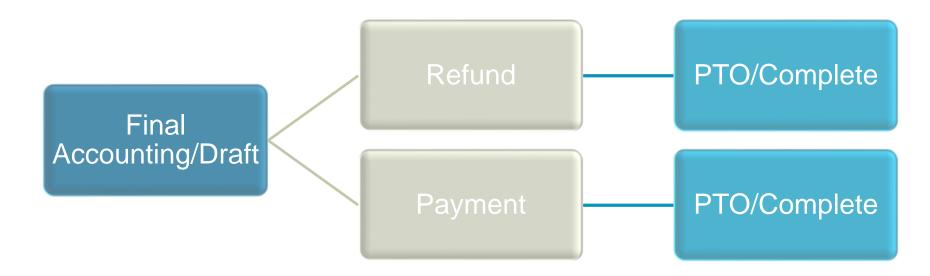
(Only applicable for certain larger systems that incurred IA costs)

- Final Interconnection (IA) Cost true-up
 - 80 day process from commercial operation date
 - Refund check/invoice sent to address provided in update form
 - 30 days to pay
- Ongoing fees and responsibilities
 - Any charges for house power billed separately
 - Annual Report Submittal

Commercial Operation Date (COD): the 1st of the month following the Permission to Operate (PTO) date. *Example, a site achieves Permission to Operate (PTO) on 1/17/19, the COD date will be 2/1/2019.

PTO: Final Interconnection Cost

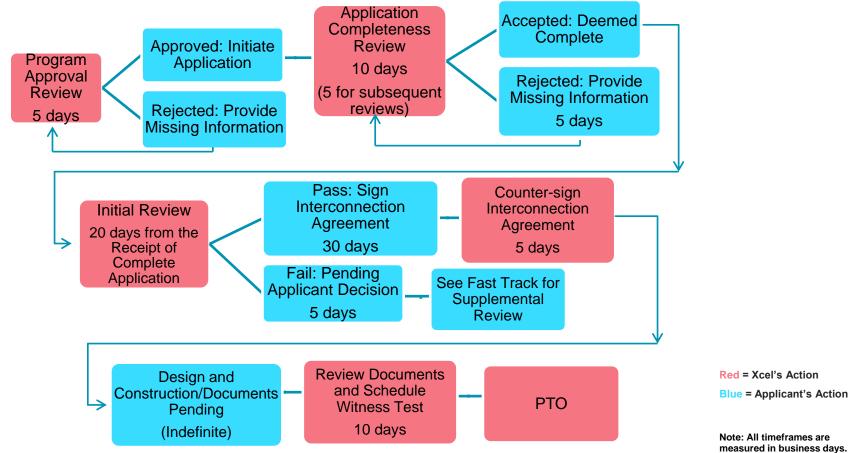
(Only applicable for certain larger systems that incurred IA costs)



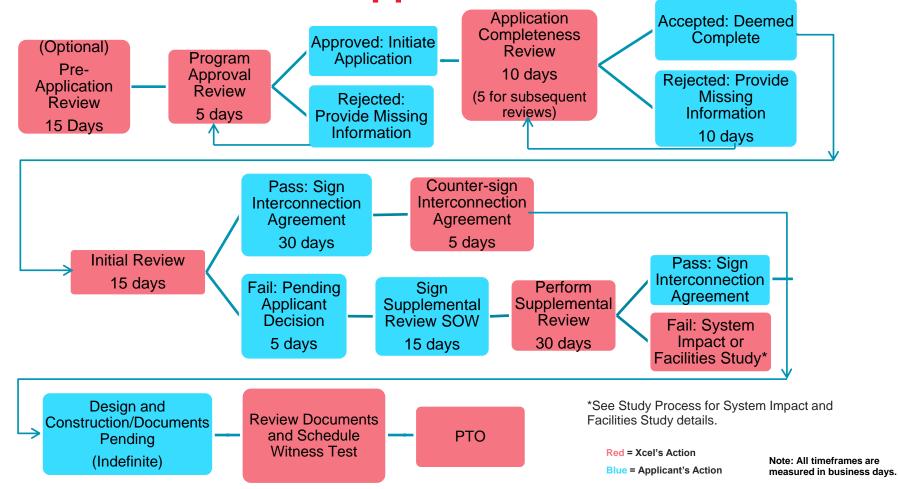
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Application Timelines

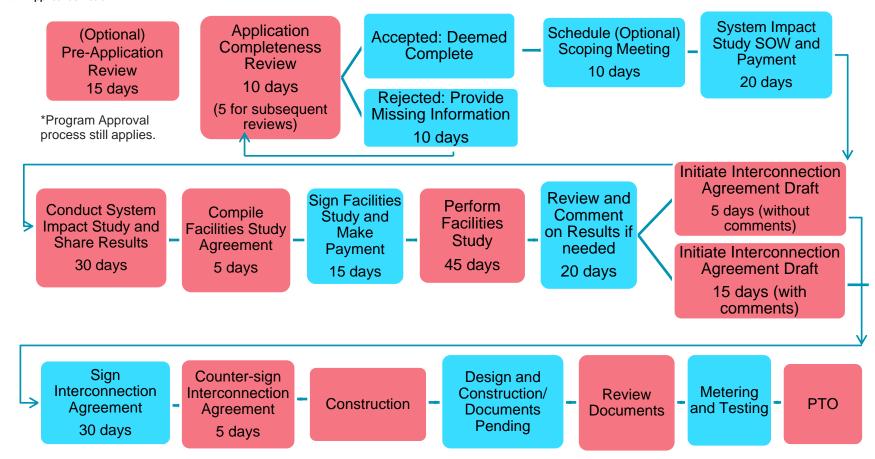
Simplified Track Application Timeline



Fast Track Application Timeline



Study Track Application Timeline



Note: All timeframes are measured in business days.

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Regulatory Resources

Tariffs

- Section 9:
 - Governs Net Metering, Solar*Rewards and Solar*Rewards
 Community projects

- Section 10:
 - Distributed Generation greater than 1 MW
 - Interconnection Guidelines
 - MN DIP

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