



# TO Planner (Non-Competitive baseline) User Guide

Date 12/1/2022

For Public Use

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## Overview

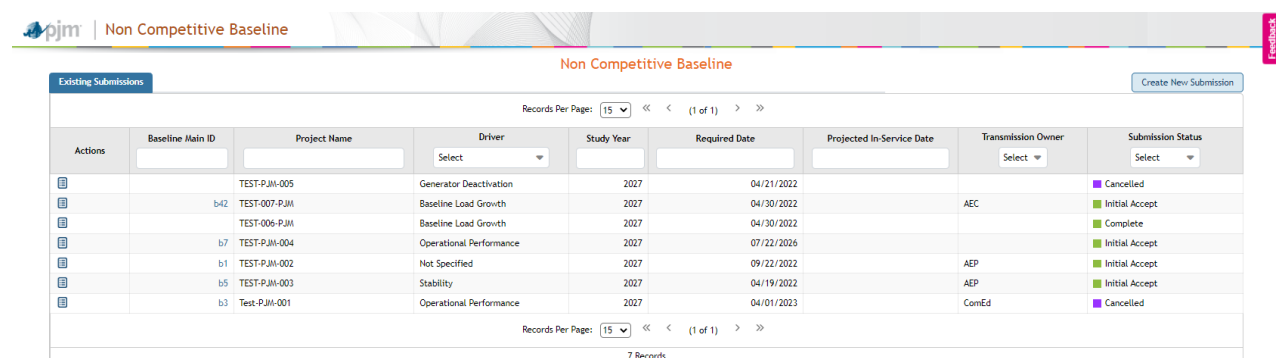
The TO Planner (Non-Competitive baseline) was created to allow Transmissions Owners to submit non-competitive baseline projects to PJM through a web portal. Transmission Owners are able to track their submitted project status and interact with PJM transmission planning through the web portal.

## Account Administration















Users must request access for the PJM.com TO Planner tool via the [Access Manager](#) page.

## Homepage

The TO Planner homepage displays all of the projects that a Transmission Owner has entered. For the projects listed, it will display a Baseline Main ID if available, the Project Name, Driver, the Study Year, Required In-Service Date, the Projected In-Service Date, and the Submission Status. Under the Actions column, users are able to view /edit/remove/request to cancel the Submission. Depending on the status of the submission, different actions are allowed.



The screenshot shows the PJM Non Competitive Baseline homepage. At the top, there is a header with the PJM logo and the text "Non Competitive Baseline". Below the header, there is a button labeled "Create New Submission". The main content area is a table titled "Existing Submissions". The table has the following columns: Actions, Baseline Main ID, Project Name, Driver, Study Year, Required Date, Projected In-Service Date, Transmission Owner, and Submission Status. The table contains 7 records. The first record is for a project named "TEST-PJM-005" with a driver of "Generator Deactivation", a study year of 2027, and a required date of 04/21/2022. The submission status is "Cancelled". The second record is for a project named "TEST-007-PJM" with a driver of "Baseline Load Growth", a study year of 2027, and a required date of 04/30/2022. The submission status is "Initial Accept". The third record is for a project named "TEST-006-PJM" with a driver of "Baseline Load Growth", a study year of 2027, and a required date of 04/30/2022. The submission status is "Complete". The fourth record is for a project named "TEST-PJM-004" with a driver of "Operational Performance", a study year of 2027, and a required date of 07/22/2026. The submission status is "Initial Accept". The fifth record is for a project named "TEST-PJM-002" with a driver of "Not Specified", a study year of 2027, and a required date of 09/22/2022. The submission status is "Initial Accept". The sixth record is for a project named "TEST-PJM-003" with a driver of "Stability", a study year of 2027, and a required date of 04/19/2022. The submission status is "Initial Accept". The seventh record is for a project named "TEST-PJM-001" with a driver of "Operational Performance", a study year of 2027, and a required date of 04/01/2023. The submission status is "Cancelled".

Actions	Baseline Main ID	Project Name	Driver	Study Year	Required Date	Projected In-Service Date	Transmission Owner	Submission Status
		TEST-PJM-005	Generator Deactivation	2027	04/21/2022			 Cancelled
	b42	TEST-007-PJM	Baseline Load Growth	2027	04/30/2022		AEC	 Initial Accept
		TEST-006-PJM	Baseline Load Growth	2027	04/30/2022			 Complete
	b7	TEST-PJM-004	Operational Performance	2027	07/22/2026			 Initial Accept
	b1	TEST-PJM-002	Not Specified	2027	09/22/2022		AEP	 Initial Accept
	b5	TEST-PJM-003	Stability	2027	04/19/2022		AEP	 Initial Accept
	b3	TEST-PJM-001	Operational Performance	2027	04/01/2023		ComEd	 Cancelled

## Creating a New Submission

Clicking on the “Create New Submission” button on the homepage brings the user to the Project Submission Form. The fields marked with a red (\*) are required fields. Users can save the progress anytime during the process by click “Save as Draft”. TOP will show saved information when the user log in next time. The General Information tab has to be saved (either “Save as Draft” or “Save & Validate”) before the remaining tabs are open for completion. Note: The save status of each tab is shown on the upper right corner of the tab.

**Non Competitive Baseline**

Existing Submissions | **Submission Form**

**General Information**

Reliability Violations  
Project Components  
Model Uploads  
Review  
Confirmation

**General Information**

Baseline ID \* [ ]

Project Name \* PJM-TST

Problem statement \* Project is a new line between X and Y utilizing AAA Structures.

Study year \* 2027

Driver \* Baseline Load Growth

Project Cost Summary  
Transmission Cost Estimate  
# of components  
Required In-service date  
Baseline Main ID  
Status In Progress

Saved as Draft

## General Information

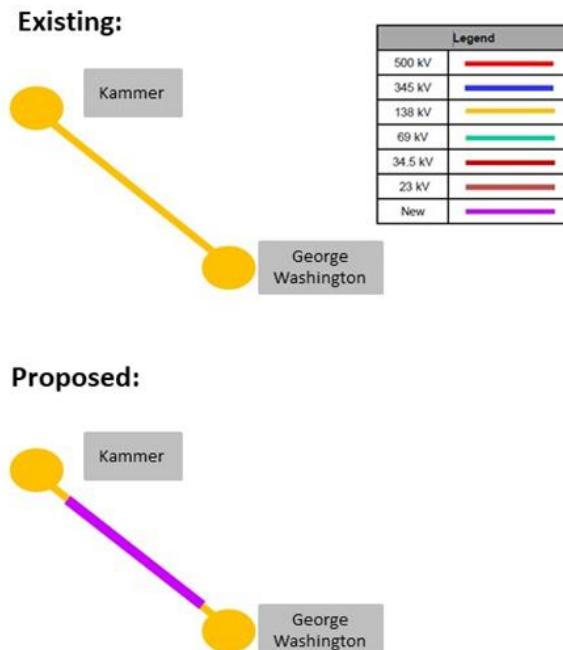
Going down the list in the General Information page, there are the following items.

1. Baseline ID: This is provided by the tool once the project has been initially accepted.
2. Project Name: This is the name of the project submitted by the Transmission Owner.
3. Problem Statement: A description of the problem/violation(s) that the baseline upgrade proposal is intended to resolve
4. Study Year: The year of the RTEP Case in which the project is identified.
5. Driver: The Type of study showing the need for baseline project.
6. Immediate Need: This will be validated by PJM.
7. TO Planner email: The email of the TO Planner who is responsible for the project planning study.
8. TO Modeler email: The email of the TO Modeler who is responsible for project MOD Submission.
9. Region: The region in which the Project is located (PJM South, PJM West, PJM MA).
10. Criteria Violation: Criteria Violation which resulted in creation of the baseline project. For example: Overload of A-B 138KV line; low voltage violation at 46kV buses A and B
11. Overlaps with existing supplemental projects: existing supplemental projects including needs/solutions. If Yes is selected, please enter the supplemental ID or Need(s) #
12. Alternatives: The alternative(s) including description and cost estimate (as applicable) that were examined when developing the baseline project. If there is none, please enter in N/A
13. Required In-Service Date: The required in-service date of the baseline project

14. Geographic Map: A geographic map showing the location of the baseline upgrade proposal including map legend and small locator map (see the sample below). If there is none, please check the “Not Applicable” box.



15. Bubble Diagram: A bubble diagram including diagram legend showing the baseline project. If there is none, please check the “Not Applicable” box.



Users are then prompted on the bottom of the page to “Save as Draft” and “Save and Validate”. “Save as Draft” will allow users to continue on with the submission form and fill out the rest of the data required. “Save and Validate” will confirm that the information provided is correct and is a required step in which will be discussed further in the “Review” tab.

## Reliability Violations

Click the Existing Flowgates tab to select flowgate(s) that the proposed project solves or mitigates.

Reliability Violations

Existing Flowgates

New Flowgates

Select a checkbox next to each facility that will be addressed by the proposed project.

☐ View selected flowgates only (1)

☐

FG #

Analysis type

From Bus No.

From Bus Name

To Bus No.

To Bus Name

CKT

Voltage

Area(s)

Select

Select

Select

Select

Select

Select

Select

Select

<input type="checkbox"/>	2022-N1-S91	SUMMER_N1_VOLT_LOW	250086	XYZ name	249988	08BKJ135	1	138/138	212/212
<input checked="" type="checkbox"/>	2022-N1-S80	SUMMER_N1_THERMAL	360334	ABC name	342811	5SUMM SHAD T	1	161/161	347/320
<input type="checkbox"/>	2022-N1-S81	LIGHT_LOAD_BASELINE_VOLT	360335	ABC name5	342812	5SUMM SHAD T	1	161/161	347/321
<input type="checkbox"/>	2022-N1-S84	SUMMER_N1_THERMAL	360336	ABC name6	342812	5SUMM SHAD T	1	161/161	347/321
<input type="checkbox"/>	2022-N1-S82	SUMMER_N1_THERMAL	360335	ABC name7	342812	5SUMM SHAD T	1	161/161	347/321

Records per page: 50 << < (1 of 1) > >>

5 Records

Save as Draft

Save & Validate

If the proposed project also address additional flowgate(s) which are caused by part of the project, PJM requires TOs to list the flowgate(s) too. Click the New Flowgates tab to add the flowgate(s). This information is to be manually entered by the user using the flowgate template that is in the tool.

Reliability Violations

Existing Flowgates

New Flowgates

New Flowgates caused by part of the submitted project.

Download new flowgate template [XLSX](#)

FG #

Analysis type

Analysis case

Comments

No records found.

Completed new flowgate document [+ Choose File](#)

Save as Draft

Save & Validate

Please note, both the Existing Flowgates and the New Flowgates tabs (even no new flowgate is addressed) need to be “Saved and Validated” before the project can be submitted.

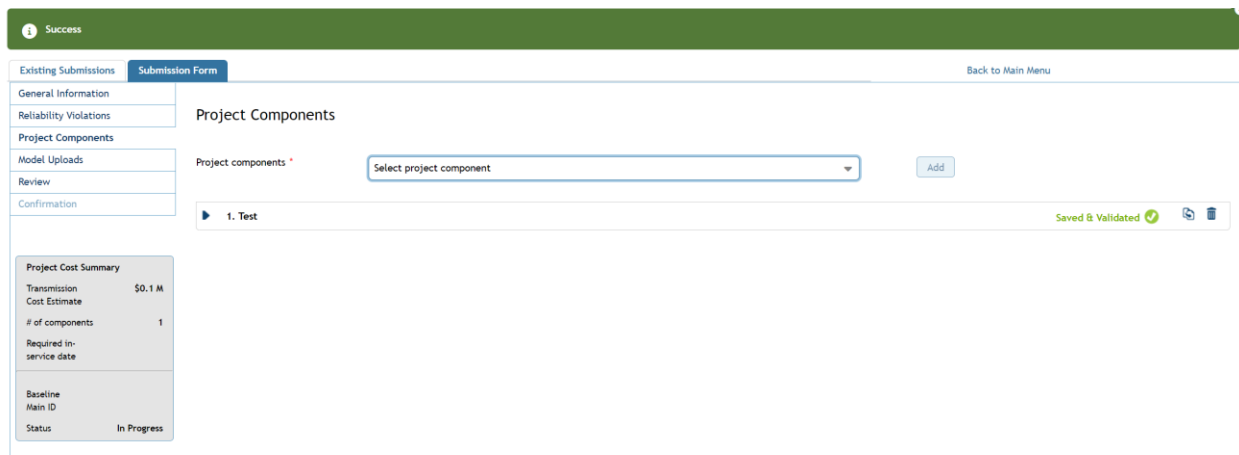
## Project Components

There are three types of components:

1. Transmission Line Component

2. Substation Component
3. Generator Component (NOTE: TOs must obtain concurrence from the related generator owner on the scope of the component before submitting it to PJM)

A project can have multiple components (including multiple same type of components).

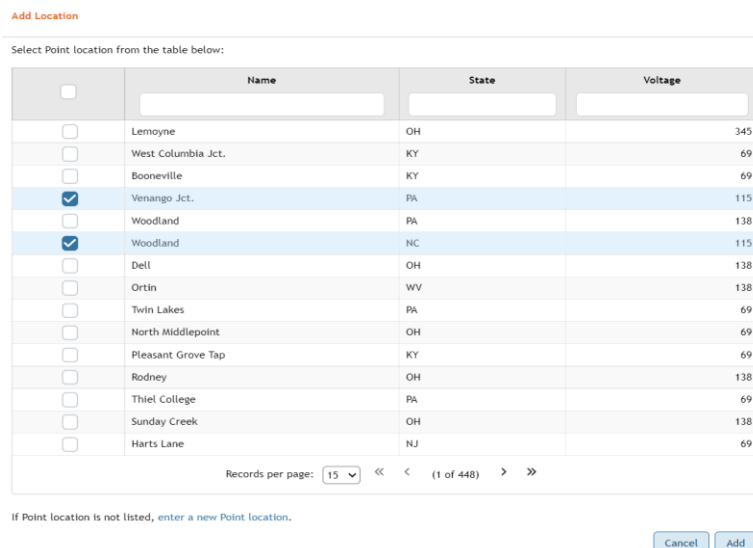


The screenshot shows the 'Submission Form' interface. On the left is a sidebar with navigation links: Existing Submissions, Submission Form (active), General Information, Reliability Violations, Project Components, Model Uploads, Review, and Confirmation. The main area is titled 'Project Components'. It features a dropdown menu labeled 'Select project component' and an 'Add' button. Below this, a table shows a single entry: '1. Test', which is marked as 'Saved & Validated'. On the far left, a 'Project Cost Summary' box displays: Transmission Cost Estimate \$0.1 M, # of components 1, Required in-service date, Baseline Main ID, and Status In Progress.

Please note, each of these have their own requirements to fill out and must be “Saved and Validated” at the end of the submission. If you have multiple components, you can add a separate entry by clicking the drop down menu and select “Add”.

## Locations

When adding a new component, users will be required to provide the location. For Transmission Line Components, a minimum of Point A and Point B are required. For multi section line, up to 10 locations can be selected. To select points, users can click the box on the left hand side to select the desired location. If more than two locations are selected, the sequence of selection should follow the line arrangement. For example, for line A-B-D-C, the selection sequence should be 1-A, 2-B, 3-D and 4-C.



The 'Add Location' dialog box prompts the user to 'Select Point location from the table below:'. It contains a table with columns for Name, State, and Voltage. The table lists 18 locations. Two locations, 'Venango Jct.' and 'Woodland', are selected with checkboxes. Below the table, there is a 'Records per page' dropdown set to 15, and navigation arrows. At the bottom, there is a note: 'If Point location is not listed, enter a new Point location.' and 'Cancel' and 'Add' buttons.

	Name	State	Voltage
<input type="checkbox"/>	Lemoyne	OH	345
<input type="checkbox"/>	West Columbia Jct.	KY	69
<input type="checkbox"/>	Booneville	KY	69
<input checked="" type="checkbox"/>	Venango Jct.	PA	115
<input type="checkbox"/>	Woodland	PA	138
<input checked="" type="checkbox"/>	Woodland	NC	115
<input type="checkbox"/>	Dell	OH	138
<input type="checkbox"/>	Ortin	WV	138
<input type="checkbox"/>	Twin Lakes	PA	69
<input type="checkbox"/>	North Middlepoint	OH	69
<input type="checkbox"/>	Pleasant Grove Tap	KY	69
<input type="checkbox"/>	Rodney	OH	138
<input type="checkbox"/>	Thiel College	PA	69
<input type="checkbox"/>	Sunday Creek	OH	138
<input type="checkbox"/>	Harts Lane	NJ	69



If the location is a GREENFIELD (doesn't exist in the location list), then users can select the "enter a new Point Location" and provide the required information that is seen below.

#### Add Location

Enter a new Point location:

Name \*

State \*

Voltage \*

Latitude \*

Longitude \*

Users can see the added point at the end of the list of available points. Points added in the tool can be used for all components that are added. Please note, once the point is added to the list, it can't be removed unless the component is deleted before the submission. However, it can be deselected. After the project is submitted, Users cannot remove the added point(s) anymore.

#### Add Location

Select Point location from the table below:

<input type="checkbox"/>	Name	State	Voltage
<input type="checkbox"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="checkbox"/>	Hummels Wharf	PA	69
<input type="checkbox"/>	Terrace	NJ	69
<input type="checkbox"/>	Wescosville	PA	500
<input type="checkbox"/>	Dans Mountain Solar	MD	138
<input type="checkbox"/>	Everson	WV	138
<input type="checkbox"/>	Rockford Energy Center	IL	138
<input type="checkbox"/>	Church Rd.	IL	138
<input type="checkbox"/>	Strouds Run	OH	138
<input type="checkbox"/>	Public Welfare	PA	69
<input type="checkbox"/>	Lobdell	IN	69
<input type="checkbox"/>	Buxmont	PA	230
<input type="checkbox"/>	Fort Recovery	OH	69
<input type="checkbox"/>	Hodgenville	KY	69
<input type="checkbox"/>	Monroe (DETED)	MI	345
<input checked="" type="checkbox"/>	Test Point	WY	138

Records per page:  << < (448 of 448) > >>

## Model Uploads

In this section, Users shall upload the Load Flow Files, Contingency Files, Short Circuit Files, Stability Study Files, One Line Diagrams, or any additional materials. If certain files that are required but not applicable, please select the “Not Applicable” box. Make sure to “Save and Validate” when completed.

Existing Submissions

Submission Form

Back to Main Menu

General Information

Reliability Violations

Project Components

Model Uploads

Review

Confirmation

Project Cost Summary

Transmission Cost Estimate

\$0.1 M

# of components

1

Required in-service date

Baseline Main ID

Status

In Progress

Model Uploads

Load Flow \*

+ Choose File

☐ Not applicable

Contingency file \*

+ Choose File

☐ Not applicable

Short Circuit \*

+ Choose File

☐ Not applicable

Stability Study \*

+ Choose File

☐ Not applicable

One-Line diagram \*

+ Choose File

☐ Not applicable

Additional materials

+ Choose File

☐ Not applicable

1. Load Flow : The IDV file in the corresponding PSS/E Version
2. Contingency File: New, Removed, and or Updated Contingency definitions
3. Short Circuit: Short Circuit CHF Files
4. Stability Study: Dyr file, or other files needed for stability study
5. One-Line Diagram: One – Line Diagram of the Model
6. Additional Materials: Please include any other files for analysis in this section

## Review

The Review tab has all of the prior information that the user entered into the tool. Each section will have a header in the top right corner to note if it was “Saved & Validated”. Users will not be able to check the box on the bottom of the page until they have made sure that each section has been “Saved & Validated”.

TO comments

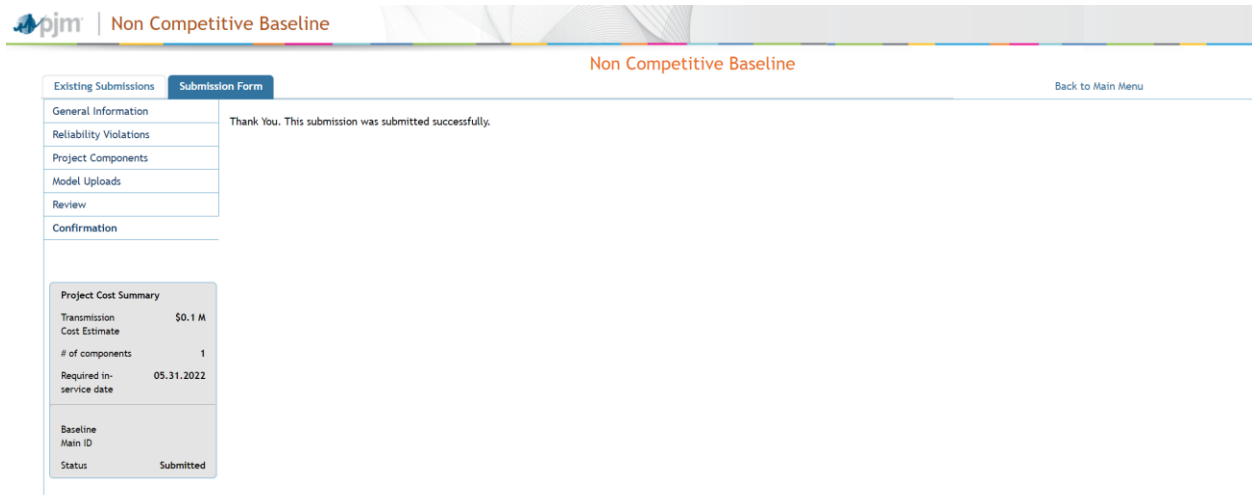
We are ready for submission. Call us with any questions.

☒ I certify that all information entered on this form is complete and accurate.

The form cannot be submitted until all required fields are saved and validated.

Submit

Once the user submits the project, they will see a confirmation banner appear. Please note, once a project is submitted, it can no longer be edited unless PJM marks the project deficient.



**Non Competitive Baseline**

Existing Submissions | **Submission Form** | Back to Main Menu

Thank You. This submission was submitted successfully.

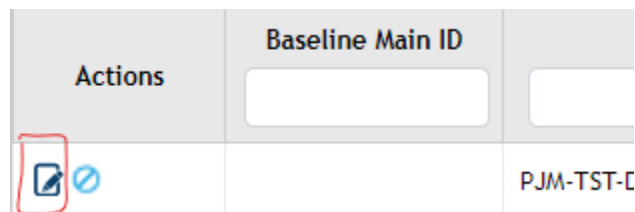
**Project Cost Summary**


Transmission Cost Estimate	\$0.1 M
# of components	1
Required in-service date	05.31.2022

**Baseline Main ID**

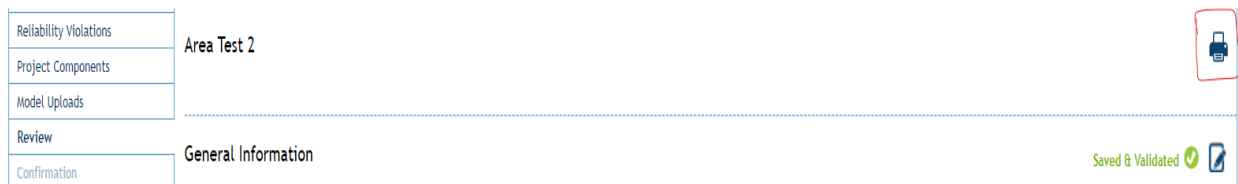
Status: Submitted

Users are able to edit a project that have not yet been submitted by clicking on the tool listed in the Actions Column. Once the project is submitted, it will be locked for editing unless PJM marks it deficient.



Actions	Baseline Main ID
	PJM-TST-C

Users can also generate a PDF of the Proposal once it has been submitted.




Reliability Violations | Area Test 2

Project Components

Model Uploads

Review | General Information



Confirmation

Saved & Validated 

## Cancel a Project Submission

TOs can initiate the cancellation of a submitted project by sending a cancellation request. By clicking either the icon on the "Actions" tab in the homepage. PJM will review the request and cancel the submittal.


## | Non Competitive Baseline

Existing Submissions		
Actions	Baseline Main ID	Project Name
 		PJM-TST

Users will then be prompted with a request form for the Cancellation of the submission. Generally, TOs should state the reason(s) for the cancellation in the pop up TO comments field. Cancellation of a project submission requires PJM confirmation.

### Cancel Project Request

×



If you cancel this project, all project information will be erased. This action requires PJM confirmation. Would you like to send cancelation request to PJM?

TO comments

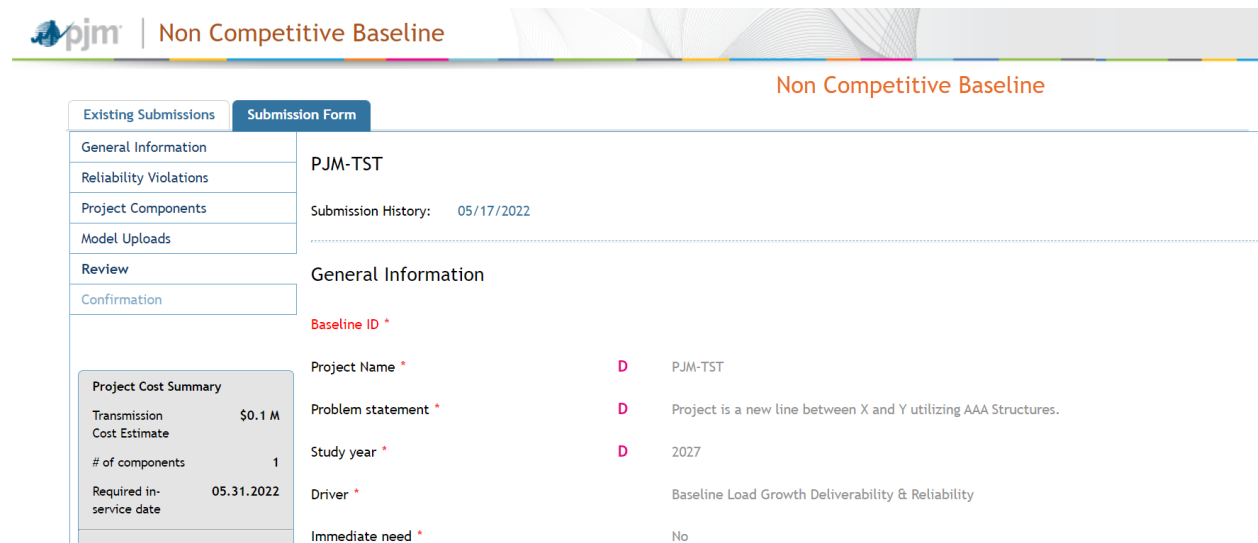
Submit

Cancel

## Deficiencies

Once a project is submitted, PJM will review all the information submitted. If there is any deficiency in certain field(s), PJM will mark these field(s) of the project Deficient. In some situations, PJM could mark the whole project deficient. In the event of this, Users will receive an email stating that their project has been marked deficient and needs to be reviewed and re-submitted.

To view the deficient fields, open the project and navigate to the “Review” tab. There you will see blue “D” marks indicating which fields need to be updated.



The screenshot shows the 'Non Competitive Baseline' submission form. The 'Review' tab is selected, displaying a list of fields with blue 'D' marks indicating deficiencies. The 'Project Cost Summary' is also visible on the left.

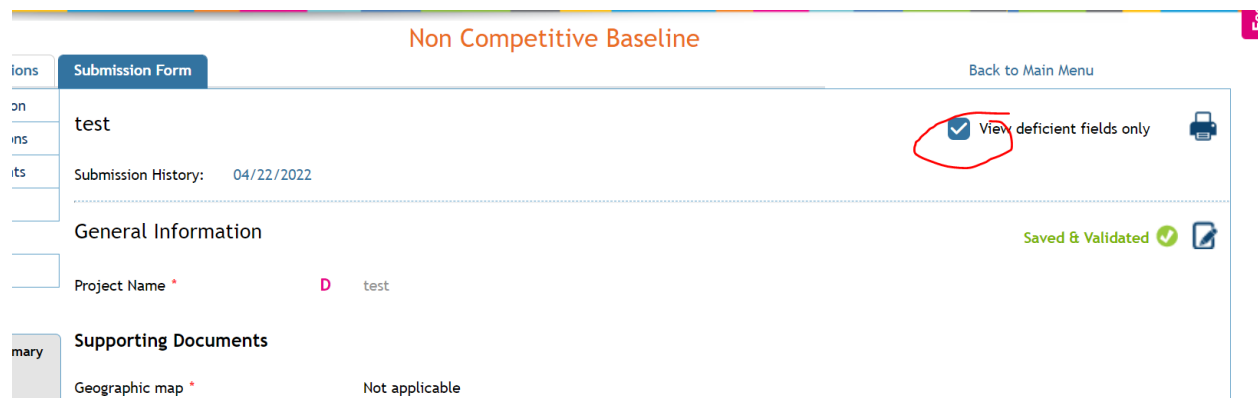
Field	Value	Status
Project Name *	PJM-TST	D
Problem statement *	Project is a new line between X and Y utilizing AAA Structures.	D
Study year *	2027	D
Driver *	Baseline Load Growth Deliverability & Reliability	
Immediate need *	No	

**Project Cost Summary**


Transmission Cost Estimate	\$0.1 M
# of components	1
Required in-service date	05.31.2022

Users are only able to edit the fields that are marked as deficient. Users can navigate to the tab that has the deficiency and make the necessary changes.

Users can also select the “View Deficient Fields Only” box to see only what PJM has marked as deficient in their proposal.





The screenshot shows the 'Non Competitive Baseline' submission form. The 'View Deficient Fields Only' checkbox is checked and circled in red. The 'Project Name' field is marked as deficient with a blue 'D'.

**View Deficient Fields Only** ☒ 


**Project Name \*** D test

**Supporting Documents**

**Geographic map \*** Not applicable

**Saved & Validated**  

All updates made are tracked and will be reflected in yellow on the final review page after they are “Saved & Validated”.


Non Competitive Baseline

Non Competitive Baseline

Existing Submissions
Submission Form

General Information
Reliability Violations
Project Components
Model Uploads

Review
Confirmation

Project Cost Summary

Transmission Cost Estimate \$0.1 M
# of components 1
Required in-service date 05.31.2022

PJM-TST-Def-Review Update

Submission History: 05/18/2022 05/17/2022

General Information

Baseline ID \*

Project Name \* D PJM-TST-Def-Review Update was: PJM-TST-Def-Review

Problem statement \* D Project is a new line between Z and A Structures Test was: Project is a new line between Z and A Structures

Study year \* D 2029 was: 2028

Driver \* Baseline Load Growth Deliverability & Reliability

Immediate need \* Yes

On the left hand of the screen, there is a window that summarizes components of the proposal including the “Transmission Cost Estimate”, the “Number of Components”, and the “Required In-Service Date”. Once the project is accepted by PJM, a Baseline Main ID will be assigned. The “Status” is status of the proposal which is also reflected on the “Existing Submissions” in the “Submission Status” column.

Project Cost Summary

Transmission Cost Estimate
# of components
Required in-service date 05.31.2022

Baseline Main ID
Status In Progress