



DPP Submittal Form Lessons Learned

SPP Staff

September 2016

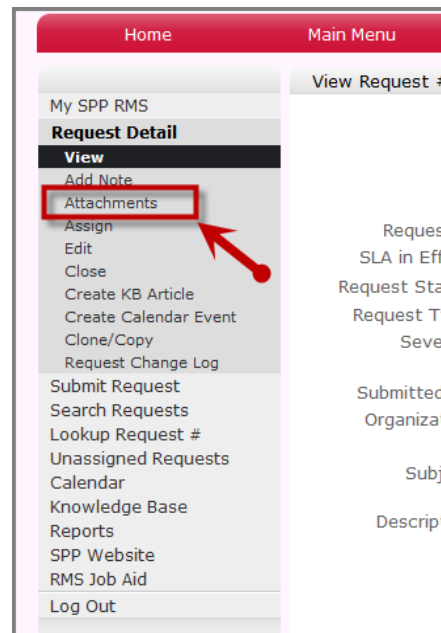
Why the need for these changes?

- The 2017 ITP10 Detailed Project Proposal (DPP) Window allowed for more lessons learned
 - Internal SPP Engineering Staff only
 - Two material changes to the DPP Submittal Form
 - Other items will be included in the DPP Submittal Form Instruction Document

DPP Submittal Form Instruction document: RMS attachments

RMS Attachments

Attachments can be uploaded in increments of no more than three (3) attachments at one time for a total of 50MB. Additional attachments can be added (in increments of three (3)) by going back to the Attachments option in the RMS menu field. You can reduce the amount of RMS tickets submitted by zipping files with multiple DPPs on one ticket in the attachment.



DPP Submittal Form Instruction document: Add verbiage regarding one IDEV per DPP Submittal

(1) The Submitter should indicate if any MODELING CORRECTIONS are included in the DPP submittal by entering “Yes” or “No” in the space provided. If “Yes,” describe the modeling corrections in Section 7 of the DPP Submittal Form. **Only one IDEV per DPP submittal.**

This is mostly an issue with model corrections

Example: 1 DPP could be a seasonal model correction

DPP Submittal Form and Instruction document: Add verbiage

Currently in Instruction document:

The Submitter shall identify all supporting documentation being provided by listing out the file names and providing a description in the space provided or by completing tab “Section 1b.” **A PSS/E version 32 IDEV is required to be provided with each proposed project. If a PROMOD XML file is included, it should be version 11.1.7.** Examples of supporting files would be one-line or slider diagrams, configurations, or maps.

Proposed language:

The Submitter shall identify all supporting documentation being provided by listing out the file names and providing a description in the space provided or by completing tab “Section 1b.” **A PSS/E version 32 IDEV is required for all solutions*; IDEV and PROMOD version 11.1.7 XML file(s) are required for solutions for economic and policy needs only.** Examples of supporting files would be one-line or slider diagrams, configurations, or maps.

***If there is a discrepancy in data between the DPP Submittal Form and the IDEV file, the IDEV data is used.**

DPP Submittal Form and Instruction document: Add verbiage regarding IDEV file preferences

<p>1.b. Supporting documentation provided – Please itemize by file name any additional files provided (i.e., One-line or slider diagrams, configurations, maps, PSSE version 32 IDEV or PROMOD version 11.1.7 XML files):</p> <p>REQUIRED: A PSS/E version 32 IDEV is required for all solutions; IDEV and PROMOD version 11.1.7 XML file(s) are required for solutions for economic and policy needs only.</p>	<p><i>Provide a listing of <u>all</u> supporting files provided or list the files on tab "Section 1b" of this workbook. SPP's preference is no solves in the IDEV files.</i></p>
--	--

b. Supporting documentation provided

The Submitter shall identify all supporting documentation being provided by listing out the file names and providing a description in the space provided or by completing tab "Section 1b."

SPP's preference is no solves in the IDEV files. If the proposed project is complex such that it requires incremental solves for case convergence, solves are acceptable.

A PSS/E version 32 IDEV is required to be provided with each proposed project. If a PROMOD XML file is included, it should be version 11.1.7. Examples of supporting files would be one-line or slider diagrams, configurations, or maps.

DPP Submittal Form Instruction document: IDEV file preferences, continued

REQUIREMENTS

- Provide an IDEV file that executes in all cases without any PSS/E warnings or errors
- Do not provide sequence data
- Do not use graphic commands

PREFERENCES

- For modifications to existing elements or topology, do not use commands that purge data
- Utilize 2-winding transformers for additions
- Do not add new elements that are out-of-service in the solution
- Do not include bus angles and per unit voltages in IDEV files

DPP Submittal Form and Instruction document: Add verbiage regarding bus numbers not exceeding 799999

TRANSMISSION LINE INFORMATION	
1.c. Preliminary transmission line engineering and design data:	<i>Enter any preliminary transmission line engineering and design data or complete tab "Section 1c" of this workbook. Enter "N/A" if no transmission line information will be part of the DPP submittal. Any new bus numbers in the IDEV should not exceed 799999.</i>

TRANSMISSION LINE INFORMATION

c. Preliminary transmission line engineering and design data

The Submitter shall provide any preliminary transmission line engineering and design data for the DPP in the space provided or by completing tab "Section 1c." Enter "N/A" if no transmission line information will be part of the DPP submittal. Any new bus numbers in the IDEV should not exceed 799999.

DPP Submittal Form Instruction document: Reminder regarding straight line distance

- Ensure straight line mileage is provided
- Ensure line impedance is consistent with per-mile impedance and straight line mileage

d. Proposed line routing

The Submitter shall provide a description of the proposed line routing for the DPP in the space provided or by completing tab “Section 1d.” Enter “N/A” if no transmission line information will be part of the DPP submittal.

(1) Total line mileage proposed. The Submitter shall provide the total line mileage being proposed using straight line distance or enter “N/A” if no transmission line information will be part of the DPP submittal.

(2) The Submitter shall ensure line impedance is consistent with per-mile impedance and straight line mileage.

DPP Submittal Form and Instruction document: Add verbiage regarding Project Schedule data input

3. Proposed Project Schedule

Proposed project schedule including, at a minimum timelines for completing regulatory, right-of-way, environmental, engineering, procurement, construction activities, and expected in-service date:

*Click here to enter a proposed project schedule, including items itemized, or **input the data into the cells in tab "Section 3" of this workbook. If for any reason a project schedule is not applicable to this DPP submittal, enter "N/A."** **Gantt Charts are not preferred for project schedules.***

Response to Section 3.

Proposed project schedule including, at a minimum timelines for completing regulatory, right-of-way, environmental, engineering, procurement, construction activities, and expected in-service date:

Schedule Item	Duration (Months)	Estimated Beginning Date	Estimated Completion Date
Regulatory approvals			
Right-of-way/land acquisition			
Engineering design			
Procurement			
Construction Activities, including testing and commissioning			
Expected In-Service Date			

Section 3: Proposed Project Schedule

This section is required for all Submitters. The Submitter shall provide a proposed project schedule for the DPP, including at a minimum:

- Timeline(s) for completing regulatory approvals
- Right-of-way/land acquisition
- Environmental
- Engineering design
- Procurement
- Construction activities, including testing and commissioning
- Expected in-service date

The project schedule information can be entered in the space provided or on tab "Section 3." If for any reason a project schedule is not applicable to this DPP submittal, enter "N/A" in the space provided.

[Gantt Charts are not preferred for project schedules.](#)

DPP Submittal Form : Section 8 - Added optional table

8. Transmission Economic or Reliability Analysis	
Provide the results of any transmission economic or reliability analysis, if applicable:	Describe the results of any independent transmission economic or reliability analysis performed, if applicable, or complete tab "Section 8" of this workbook. An optional table is also included in Section 8 to input SPP Adjusted Production Cost (APC). Attach files, if necessary, and reference them here, identifying the section in the file name. If no additional analysis was performed, please enter "N/A."

Response to Section 8: The table below is optional		
CASE	SPP Adjusted Production Cost (APC) DELTA	Comments
2020 - F1		
2020 - F2		
2020 - F3		
2025 - F1		
2025 - F2		
2025 - F3		

The Case field can be changed to fit the years and futures of the study



DPP Submittal Form Instruction document: Added verbiage

▲ Section 8: Transmission Economic or Reliability Analysis

This section is required for all Submitters. The Submitter shall provide the results of any transmission economic or reliability analysis performed for the DPP in the space provided or by completing tab “Section 8.” If no additional analysis is being provided, enter “N/A” for Section 8. If results are being provided, please describe the results of any independent transmission economic or reliability analysis performed, if applicable.

Response to Section 8: The table below is <i>optional</i>		
CASE	SPP Adjusted Production Cost (APC) DELTA	Comments
2020 - F1		
2020 - F2		
2020 - F3		
2025 - F1		
2025 - F2		
2025 - F3		

An **optional** table is also included in Section 8 to input Adjusted Production Cost for the SPP region.

DPP Submittal Form and Instruction document: Added verbiage for GPS coordinates and map image

1.f.1. GPS coordinates:

*If proposing new substation(s), enter approximate latitude and longitude of location **and** provide a map image. Enter "N/A" if no substation information will be part of the DPP submittal.*

SUBSTATION INFORMATION

f. Preliminary substation engineering and design data

The Submitter shall provide any preliminary substation engineering and design data for the DPP in the space provided or by completing tab "Section 1f." Enter "N/A" if no substation information will be part of the DPP submittal.

- (1) GPS coordinates. The Submitter shall provide the approximate latitude and longitude **and** provide a map image for any new substations being proposed. Enter "N/A" if no substation information will be part of the DPP submittal.

2017 ITP10 DPP Statistics

DPP Curing Process*

- 24% of DPPs were contacted for other follow-up items
 - 65% - IDEV issues
 - 46% - DPP Submittal Form issues
 - 7% - Project schedule issues

Proposed new lines between existing buses

- Comparing line mileage referenced in submitted projects to straight line distance mileage calculated utilizing GPS coordinates from SPP GIS data
 - 57% of all new lines had greater than 10% error
 - 39% of all new lines had greater than 20% error
 - 25% of all new lines had greater than 30% error

*Some DPPs had overlapping issues and required multiple iterations of correspondence