

Calculating Financial Security Requirements Based On Final DISIS Study Report

Information regarding Network Cost Allocation methodology and Financial Security Cost Factor calculations are found in the SPP Tariff Attachment V, Sections 4.2.2 (b); 8.5.1 (5) (a) & (b) and 8.5.2 (8).

Here is a link to the SPP Tariff, Attachment V:

<https://opsportal.spp.org/documents/studies/SPP%20Tariff%20Attachment%20V%20Generator%20Interconnection%20Procedures.pdf>

Financial Security Two

Referencing the DISIS Study Report Workbook, under the “**Assigned Upgrade Costs**” worksheet, the algebraic equivalent of the Financial Security Two Calculation is as follows:

$$\% \text{ Allocated} * \% \text{ Allocated} * \text{ Total Upgrade Cost} * 0.1 = \text{ Financial Security Two}$$

- The above algebraic equivalent example is for a single Assigned Upgrade Cost for Decision Point 1 Financial Security Two Cost Factor of 10% (0.1), as per SPP Tariff Attachment V, Section 8.5.1.
- Financial Security calculations are based on the most current study and Interconnection Upgrade costs. Contingent Upgrade costs are not included.

Let’s use the following example from a DISIS Workbook “Assigned Upgrade Costs” worksheet, considering the first Upgrade Detail line item for reference:

Upgrade Details	Allocated Cost	% Allocated	Total Upgrade Cost	PTDF	FS
Add a switched shunt capacitor at Ft Randall 230 kV (250 Mvar)	\$386,540.90	8.16%	\$4,735,750.00	0.0494	
Add a switched shunt capacitor at Hanlon 230 kV (200 Mvar)	\$138,020.65	3.64%	\$3,788,600.00	0.0096	
Add a switched shunt capacitor at Red Field 69 kV (20 Mvar)	\$321,625.94	47.28%	\$680,200.00	0.5558	
Rebuild the existing Columbus to Meadow Grove 230 kV line (44.14 miles)	\$3,263,470.74	8.37%	\$38,998,087.26	0.0379	

$$\% \text{ Allocated} * \% \text{ Allocated} * \text{ Total Upgrade Cost} * 0.1 = \text{ Financial Security Two}$$

(now, replace the above variables with actual column values from the report)

$$8.16\% * 8.16\% * \$4,735,750.00 * 0.1 = \$3,155.02$$

For instances of more than one **Assigned Upgrade Costs**, ALL of the incremental Financial Security Costs associated with a Generation Interconnection Request (GEN-20xx-xxx) must be **SUMMED** together for a Total Financial Security. In the example table below, there are thirteen (13) Assigned Upgrades with a combined Total Financial Security Two of \$7,613,617.72.

Upgrade Details	Allocated Cost	% Allocated	Total Upgrade Cost	PTDF	FS2
Add a switched shunt capacitor at Ft Randall 230 kV (250 Mvar)	\$386,540.90	8.16%	\$4,735,750.00	0.0494	\$3,155.02
Add a switched shunt capacitor at Hanlon 230 kV (200 Mvar)	\$138,020.65	3.64%	\$3,788,600.00	0.0096	\$502.82
Add a switched shunt capacitor at Red Field 69 kV (20 Mvar)	\$321,625.94	47.28%	\$680,200.00	0.5558	\$15,207.77
Rebuild the existing Columbus to Meadow Grove 230 kV line (44.14 miles)	\$3,263,470.74	8.37%	\$38,998,087.26	0.0379	\$27,309.65
Rebuild the existing Summit-7 to Waterton 115 kV 30.7 mile line to achieve a minimum rating	\$6,891,407.99	9.27%	\$74,364,952.53	0.0494	\$63,862.75
Rebuild the existing Summit-7 to Bristol 115 kV 32.562 mile line to achieve a minimum rating	\$1,976,957.05	21.46%	\$9,213,876.00	0.1778	\$42,418.19
Rebuild the existing Grotonsouth to Redfield-ER7 115 kV 42.77 mile line to achieve a minimum rating	\$24,914,048.49	47.28%	\$52,690,201.76	0.5558	\$1,178,036.51
Rebuild the existing Huron to Redfield 115 kV 30.56 mile line to achieve a minimum rating of	\$44,010.27	8.80%	\$500,000.00	0.0908	\$387.38
Facilitate the interconnection of GEN-2019-060	\$7,807,500.42	94.03%	\$8,302,968.00	0.0774	\$34,159.92
Rebuild the existing Summit-7 to Waterton 115 kV 30.7 mile line to achieve a minimum rating	\$2,306,713.00	100.00%	\$2,306,713.00		\$230,671.30
Rebuild the existing Summit-7 to Waterton 115 kV 30.7 mile line to achieve a minimum rating	\$1,053,167.00	100.00%	\$1,053,167.00		\$105,316.70
Rebuild the existing Summit-7 to Waterton 115 kV 30.7 mile line to achieve a minimum rating	\$0.00	0.00%	\$21,822,788.00	0.0258	\$0.00
Rebuild the existing Summit-7 to Waterton 115 kV 30.7 mile line to achieve a minimum rating	\$0.00	0.00%	\$23,146,372.08	0.0493	\$0.00
Rebuild the existing Grotonsouth to Redfield-ER7 115 kV 42.77 mile line to achieve a minimum rating	\$30,402,626.80	100.00%	\$30,402,626.80	0.0637	\$3,040,262.68
Rebuild the existing Huron to Redfield 115 kV 30.56 mile line to achieve a minimum rating of	\$21,723,270.40	100.00%	\$21,723,270.40	0.0496	\$2,172,327.04
	\$101,229,359.65		\$101,229,359.65		\$7,613,617.72

This table is only an example, showing the summation of all of the incremental Financial Securities per Assigned Upgrade. The FS2 Column does not exist in the DISIS Study Report Workbook.

Under the SPP Tariff, Attachment V, the **Financial Security Two** required under Section 8.5.1 (5) will be “equal to the **greater** of: a. Ten percent (10%) of the Financial Security Two Cost Factor, less the amount of Financial Security One that was provided to enter DISIS Phase One, **or** b. \$4,000 per MW of the requested capacity advancing to DISIS Phase Two...”

From the example calculation above, that Total Financial Security requirement will be incorporated into the Decision Point Election Form within the Financial Security Requirement Statement to further clarify which Financial Security amount must be provided before the end of the Decision Point Period.

For **Financial Security Two**, provided in the Decision Point Election Form’s Financial Security Requirement Statement, it will detail that the **Financial Security Two** requirements **minus** the previously provided Financial Security One deposits on hand, along with a calculation of the \$4,000 per MW for comparison. Whichever Financial Security amount is **greater** will be required before the end of DP1, per Section 8.5.1 (5) of the SPP Tariff, Attachment V.

Description	Amount
Financial Security 2 (FS2)	\$7,613,617.72
Current Security Deposit Balance	\$600,000.00
Adjusted FS2 Cost – Security Deposit Balance	\$7,013,617.72
\$4,000 per MW	\$600,000.00
Total Due by 11/16/2022	\$7,013,617.72

For FS2, after the Financial Security is calculated and the previous financial securities are deducted, it is compared to the \$4,000 per MW calculation. Whichever is greater will be the Total Due amount that must be received before the end of the DP Period.

Financial Security Three

Financial Security Three uses a different algebraic formula, per the SPP Tariff Attachment V, than what is prescribed for Financial Security Two. Referencing the DISIS Study Report Workbook, under the **“Assigned Upgrade Costs”** worksheet, the algebraic equivalent used for the Financial Security Three Calculation is as follows:

Allocated Cost * 0.2 = Financial Security Three

- The above algebraic equivalent example is for a single Assigned Upgrade Cost for Decision Point 2 Financial Security Three, as per SPP Tariff Attachment V, Section 8.5.2 (8).
- Financial Security calculations are based on the most current study and Interconnection Upgrade costs. Contingent Upgrade costs are not included.

Let’s consider the following example from a DISIS Workbook “Assigned Upgrade Costs” worksheet, using the first Upgrade Detail line item for reference:

Upgrade Details	Allocated Cost	% Allocated	Total Upgrade Cost	PTDF %
Rebuild the Craig to Lenexa 161 kV Ckt 1 2.95 mile	\$231,819.10	7.95%	\$2,915,107.52	0.01589

Allocated Cost * 0.2 = Financial Security Three

(now, replace the above variable with actual column value(s) from the report)

$$\mathbf{\$231,819.10 * .2 = \$46,363.82}$$

For instances of more than one **Assigned Upgrade Costs**, ALL of the incremental Financial Security Costs associated with a Generation Interconnection Request (GEN-20xx-xxx) must be **SUMMED** together for a Total Financial Security. In the example table below, there are nine (9) assigned upgrades with a combined Total Financial Security Three of \$16,164,893.94.

Upgrade Details	Allocated Cost	% Allocated	Total Upgrade Cost	PTDF %	FS3
Rebuild the Martin to Vetal Tap 115 kV 16.67 mile line	\$8,000,000.00	100.00%	\$8,000,000.00	0.3026	\$1,600,000.00
Rebuild the Mission to St Francis 115 kV 19.49 mile	\$13,854,271.60	100.00%	\$13,854,271.60	0.14754	\$2,770,854.32
Rebuild th		100.00%	\$20,000,000.00	0.3026	\$4,000,000.00
Rebuild th		100.00%	\$18,289,913.20	0.14754	\$3,657,982.64
Build a se		100.00%	\$18,748,279.62	0.21925	\$3,749,655.92
Upgrade t		6.36%	\$500,000.00	0.04748	\$6,364.12
Upgrade t		6.36%	\$600,000.00	0.04748	\$7,636.94
Facilitate t		100.00%	\$7,000.00	1	\$1,400.00
Facilitate the interconnection of GEN-2017-113	\$1,855,000.00	100.00%	\$1,855,000.00	1	\$371,000.00
	\$80,824,469.72		\$81,854,464.42		\$16,164,893.94

Under the SPP Tariff, Attachment V, the **Financial Security Three** required under Section 8.5.2 (8) will be *“...equal to: Twenty percent (20%) of the total upgrade costs allocated to the Interconnection Request, less the amount of Financial Security One and Financial Security Two that was previously provided to enter DISIS Phase One and DISIS Phase Two.”*

For **Financial Security Three**, provided in the Decision Point Election Form's Financial Security Requirement Statement, it will detail that the **Financial Security Three** requirements minus the previously provided Financial Security One and Financial Security Two deposits on hand. Financial Security Three must be provided before the end of DP2.

Description	Amount
Financial Security Three (FS3)	\$16,164,893.94
Current Security Deposit Balance	\$1,000,000.00
Adjusted FS3 Cost – Security Deposit Balance	\$15,164,893.94
Total Due by 11/16/2022	\$15,164,893.94

For FS3 after the Financial Security is calculated, the previous financial securities are subtracted. The remaining amount is the Total Tue that must be received before the end of the DP Period.