

FRP Risk Model – Quick Start Guide

Step-by-Step: How to Run the Model

The model is run by clicking the “**Run Simulation**” Button found in cell **C2** of the **Model** tab or cell **T7** of the **MC Sim** tab.

The button executes a built in VBA macro called “McCalc”, which lives in the workbook's “Tools” Module.

Procedure

1. **Confirm you are on the correct business line.** Check the Base CF Set (C10), DC Burn Rate (C12), RFR Start Balance (C13), and RSF Start Balance (C14) all correspond to the same business line (Power or Transmission) before changing anything else.
2. **Set the scenario you want to test.** Adjust inputs for the desired scenario. For example the RSF Base Contrib and RSF Max can be set to test a Rate Stability Fund, or adjust the FRPS Cap to test a different Surcharge recovery cap. Leave every other input at its current value so only the tool you are testing changes.
3. **Run the simulation:** Press the Run Simulation button. You will be prompted for how many games to run. The maximum available is limited by how many games exist in the selected base cash flow set. The macro will cycle through that many iterations, and the MC Sim tab's output table will fill in as it goes. When the simulation completes, a static copy of the simulation statistics is captured on the MC History tab.
4. **Read the results.** The MC History tab shows a number of statistics for the simulation, as well as the input settings used for the simulation. The individual iterations behind simulation statistics can be seen in on the MC Sim tab in the table labeled “Simulation Results”.
 - a. The user can review the year-by-year calculations for any iteration in the Simulation Results table by adjusting the “Current CF Set #” in the Model tab, cell C8. For example, if you want to review the model results for the 5th iteration in the Simulation Results table, change cell C8 of the model tab to 5. At this point, the Model calculations will be identical to those used to generate iteration #5.

5. **Repeat from step 2 for each alternative you want to compare.** Change one thing at a time where possible, so each saved snapshot isolates the effect of a single lever.

Input Reference

Input Settings (Model, Column C)

Row	Input	What It Does
11	CF Adjustment	A dollar amount (\$M/year) added to every year's randomly-drawn cash flow before anything else is calculated. Use this to shift the underlying cash flow assumption up or down without changing its shape or volatility.
10	Base CF Set	Selects which named pool of pre-generated random cash flows to draw from (for example, "PS Base" for Power, "TS Base" for Transmission, or an alternative generator variant). This determines the volatility and shape of the simulated cash flow, and is the single most important switch for moving between business lines.
4	Stat: Large Trigger Thresh	A dollar threshold (default \$100M) used only for reporting: any tool's trigger amount at or above this value in a given year is separately counted as a "large" event in the output frequency statistics. Does not affect the cash mechanics.
5	Stat: Years Below Thresh	The DCOH threshold (default 60, matching the Surcharge threshold) that the model's Recovery Period statistics are measured against: how long, and how often, RFR spends below this line.
6	Extra for Yrs Blw Stat	Extra buffer years (default 10) appended after the main simulation window solely so a shortfall late in year 20 can still be tracked to its actual recovery. These buffer years are excluded from the primary Average RFR and Tool Balance statistics.
7	Sim Years	The length of one game's primary reporting window (default 20 years). Combined with the buffer years, this must not exceed the model's available row capacity, the sheet will display an explicit "Model Rows Exceeded" warning if it does.
8	Current CF Set #	Selects which block of the pre-generated cash flow pool feeds the game currently on screen. This is the value the run macro increments automatically across a full simulation; you generally do not need to set it by hand except to preview a single specific draw.
12	DC Burn Rate	Dollars per Day Cash on Hand for the business line being modeled. Every DCOH-denominated threshold below is converted to dollars by multiplying by this rate, so it must match whichever business line the Base CF Set is drawing from.
13	RFR Start Balance	Starting Reserves for Risk, in \$M, at year 1 of every game.
14	RSF Start Balance	Starting Rate Stability Fund balance, in \$M.
16	RSF Max	The RSF's target balance / cap, in \$M. Leaving this blank turns the RSF off entirely for the run.
17	RSF Base Rate Amount	The structural annual contribution into the RSF, in \$M/year, subject to the two-year rate-period funding rule described in the calculation walkthrough above.

Row	Input	What It Does
18	RSF, Strict EOY Thresh	A DCOH threshold used for an additional, stricter year-end RSF drawdown check, separate from the main CRAC/Surcharge priority order.
20	Yearly RevFin	The dollar amount of revenue financing, in \$M/year, available to be repurposed toward liquidity if needed.
21	RevFin Rep. Below Thresh	The DCOH threshold that triggers repurposing of the Yearly RevFin amount: if forecast year-end RFR would fall below this line, repurposing activates.
22	RevFin Rep. GYBY Thresh	A second, typically higher, DCOH threshold that activates the "Good Year / Bad Year" revenue-financing mechanism, a secondary repurposing trigger evaluated against the starting-of-year balance rather than the projected ending balance.
23	Offset RM Trigger by RevFin	TRUE/FALSE. When TRUE, the CRAC and Surcharge shortfall calculations first subtract the available Yearly RevFin amount before computing what still needs to be recovered from customers.
25	PNRR	A flat dollar amount, in \$M/year, charged with no threshold and no contingency, every year the tool is enabled. Modeled identically to a reduction in the surplus sales (NSR) credit.
27	LSP Thresh	The DCOH threshold that activates the Liquidity Stability Provision. Leave blank to turn the LSP off.
29	CRAC Thresh	The DCOH threshold (normally 0) below which the Cost Recovery Adjustment Clause activates.
30	CRAC Cap	The annual dollar cap, in \$M, on CRAC recovery (applied after the 100%/50% tiered recovery rate).
32	FRPS Thresh	The DCOH threshold (normally 60) below which the FRP Surcharge activates.
33	FRPS Cap	The annual dollar cap, in \$M, on Surcharge recovery.
35	RDC Thresh	The DCOH threshold (normally 120) above which the Reserves Distribution Clause activates.
36	RDC Cap	The annual dollar cap, in \$M, on the amount released through the RDC. Set to a very large number (for example, 9999) to model an effectively uncapped RDC.