

**From:** Thomas Stesco  
**Sent:** Wed 4/24/2013 7:12:13 PM  
**Subject:** RE: Break Even Analysis - Peak Hour Revenue Reductions  
[UP Express Fare Break Even Analysis R5-Apr24-2013.pptx](#)

Hello Stephan,

Here's the updated presentation with the table comparing the tolerance of each option on operating cost increase as well as the table comparing the operating costs, ridership, and revenue for each option. Let me know if there are any other aspects you would like to add to the presentation or if you have any comments or suggestions on the formatting.

Tom

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**From:** Stephan Mehr  
**Sent:** Wednesday, April 24, 2013 12:21 PM  
**To:** Thomas Stesco  
**Cc:** Philip Safos  
**Subject:** RE: Break Even Analysis - Peak Hour Revenue Reductions

Hi Thomas and thanks!

Yes please also a table as suggested.

Stef

**From:** Thomas Stesco  
**Sent:** Wednesday, April 24, 2013 10:34 AM  
**To:** Stephan Mehr  
**Cc:** Philip Safos  
**Subject:** RE: Break Even Analysis - Peak Hour Revenue Reductions

Hello Stephan,

Hope all is well. Here is the updated sheets with the added calculated operating cost tolerance and a summary of the operating costs, ridership, and revenue in 2017/2018 for each configuration. I'm going to add slides relevant to option 3 to the power point. I can also make and add a table or a graph to show which configurations are the most versatile when subject to operation cost increases if you would like.

Tom

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**From:** Stephan Mehr  
**Sent:** Tuesday, April 23, 2013 4:29 PM  
**To:** Thomas Stesco  
**Cc:** Philip Safos  
**Subject:** RE: Break Even Analysis - Peak Hour Revenue Reductions

Thanks Thomas.

Let's keep the revenue losses in even if they are not significant.

Good work!

Stef

**From:** Thomas Stesco  
**Sent:** Tuesday, April 23, 2013 4:00 PM  
**To:** Stephan Mehr

**Cc:** Philip Safos

**Subject:** Break Even Analysis - Peak Hour Revenue Reductions

Hello Stephan,

I've added an excel tool at the end of the fare break even analysis sheets that calculates the revenue losses from having ridership above capacity during the august peak hour. The model uses the peak hour ridership data from the configuration summary which was derived from the SDG ridership study data incorporating the ramp-up. The factors of ridership, train headway (relating to total trains per hours), and average capacity per consist are set as variables and can be changed to calculate the different configurations. I ran the calculations for the average peak hour ridership as well and found it does not reach capacity until after 2025, even with the worst case scenario (20 in headway and 10% ridership reduction), so it was not included in the tool.

The revenue losses at the worst case scenario in 2018 are Exclusion per Committee Direction at the Exclusion per Committee Direction fare and Exclusion per Committee Direction. These levels seem beyond the precision of the initial model, should I include the results in each configuration analysis anyway? If not can create a separate slide to show the impact of the peak hour ridership being above capacity.

I've also added all the data labels on the bar graphs and the operations cost now has a coefficient factor below the ridership factor. I'm currently calculating the operating cost levels of tolerance for each configuration.

Tom