



**To:** Erin Daughton, ComEd

**From:** Cherlyn Seruto, Jan Harris, Paul Higgins, Guidehouse

**CC:** Rob Neumann, Jeff Erickson, Guidehouse  
Jennifer Morris, ICC

**Date:** September 20, 2021

**Re:** ComEd Virtual Commissioning PY 2019-2020 Participant Net-to-Gross Survey Results

## Executive Summary

This memo summarizes findings from primary research undertaken by Guidehouse on the Virtual Commissioning (VCx) Program. The research was based on a telephone survey fielded in May 2021 focused on determining free ridership (FR) and spillover (SO). This is the first year Net-to-Gros (NTG) has been researched for the VCx program.

These results will inform Guidehouse’s September 2021 recommendations to SAG of NTG values to be used for this program in CY2022.

Table 1 provides a summary of the VCx Program free ridership and spillover research findings.

**Table 1. Participant Net-to-Gross Research Results for Virtual Commissioning Program**

Free Ridership	Relative Precision @90% CI	Participant Spillover
0.07	7%	0

Source: Guidehouse CY2020 primary NTG research

## Research Methodology

The data was gathered through a participant self-report telephone survey administered by Guidehouse. The sample was a census of the 126 program participants from PY2019 and PY2020.

**Table 2. NTG Decision Maker Research Representation**

Measure	Population	Sample	Completes	Share of Program (or Measure) Savings Represented by Analyzed Completes
Overall Program	326 Addresses, 126 Unique Contacts	126 Unique Contacts	15	35%

Source: Guidehouse Research

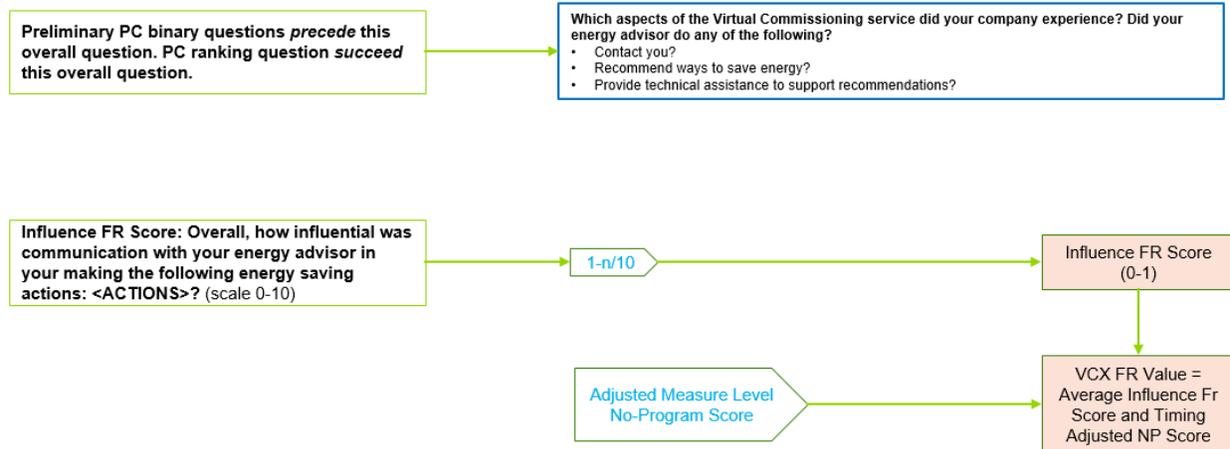
## Free Ridership and Spillover Protocols

The evaluation team applied the Study-Based free ridership protocol algorithm recently developed from the Illinois TRM by the SAG NTG Working Group, which is based on TRM v9.0 Study-Based Free Ridership Score Option #2, with updates based on (SAG) NTG Working Group consensus in 2020.

### Participant Free Ridership Estimation

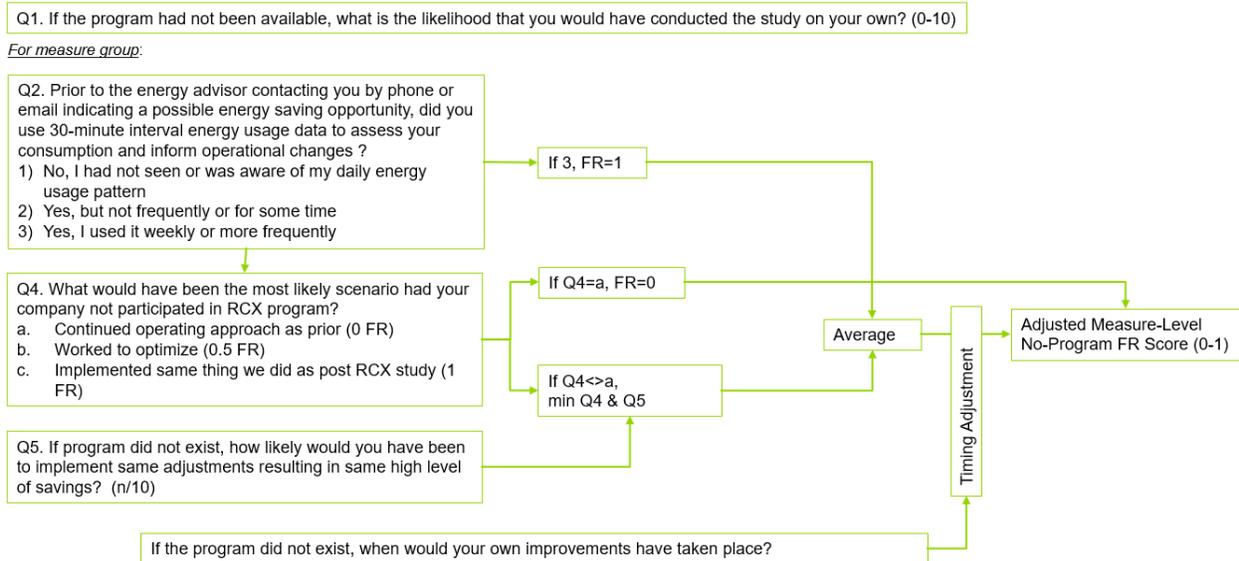
The following diagram describes the SAG NTG Working Group algorithm that Guidehouse used to calculate the free ridership for the VCx Program.

**Figure 1. VCx Free Ridership – Overview**



Source: Guidehouse adjustment of TRM v9.0 Study-Based Free Ridership Score Overview (TRM V9 Figure 3.4, page 59), with updates based on Illinois SAG NTG Working Group consensus in 2020

**Figure 2. VCx Free Ridership – Measure Level No-Program FR Score**



Source: Guidehouse adjustment of TRM v9.0 Study-Based Free Ridership Score Option #2 (TRM v9 figure 3.5, page 60), with question wording updates based on Illinois SAG NTG Working Group consensus in 2020

The evaluation team conducted a double blind review of 5 records where the Program Influence (PI) Score was inconsistent with the NP score. For each of these 5 records, the PI Score was determined to be more consistent with the open-ended responses than the NP Score, therefore the NP Score was excluded in these 5 cases. Table 3 reports the average PI Score, average NP score, and final FR value.

**Table 3. Free ridership results post evaluator consistency check adjustments**

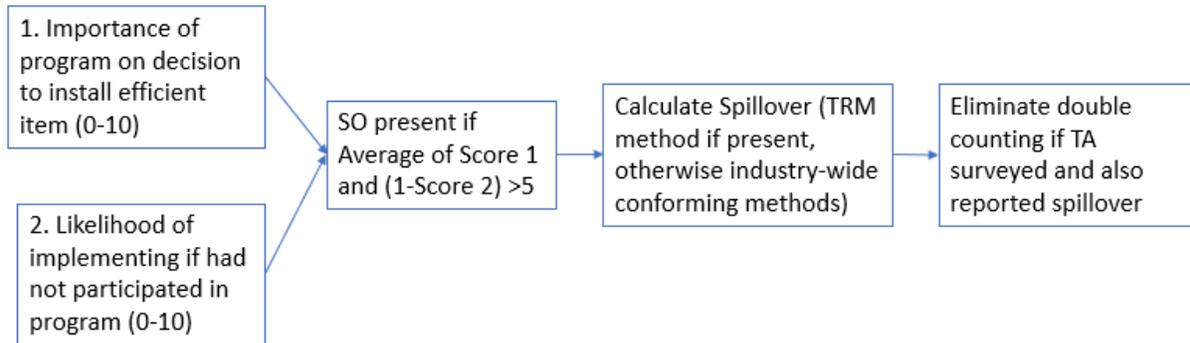
Average PI Score	Average NP Score	Final FR Value
0.08	0.03	0.07

Source: Guidehouse Research

## Participant Spillover Estimation

Guidehouse calculated spillover based on TRM v9.0 Section 3.2.1, Core Non-Residential Participant Spillover Protocol, using the method summarized in Figure 3 below.

**Figure 3. IL TRM v9.0 Section 3.2.1 Core Non-Residential Participant Spillover Protocol**



Source: Guidehouse Representation of IL TRM v9.0 Study

Of the 15 survey respondents, 5 reported that they completed additional energy efficient upgrades without program incentives since participating in the VCx Program, three passed the screening criteria for program influence, and only one confirmed they did not receive incentives for the additional energy saving item(s). This one respondent stated that the measures were installed in a building outside ComEd’s territory. Thus the spillover savings and rate for the program are zero.

## Final NTG Results and Recommendations

Table 6 summarizes Guidehouse’s recommendations for the VCx program NTG.

**Table 4. Summary of NTG Research Results for the VCx Program**

Free Ridership	Participant Spillover	Net to Gross
0.07	0	0.93