Report for July 2024 R- & S-NRUF
to the
Canadian Steering Committee on Numbering (CSCN)

Published: 24 September 2024

Issued by:
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1. Purpose of R-NRUF

In accordance with the *Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline, Version 5.1* (the Guideline), approved by the Canadian Radio-television and Telecommunications Commission (CRTC) in Telecom Decision CRTC 2015-166 dated 29 April 2015:

> When an NPA is entering the timeframe for NPA Relief Planning (e.g., within or about 72 months before the Projected Exhaust Date), an initial R-NRUF is conducted to obtain actual and forecast annual data at the Exchange Area level of detail. The purpose of the initial R-NRUF is to validate the Projected Exhaust Date for an exhausting NPA, and to provide the CNA with detailed information to be used to identify a potential Relief Date and to prepare the Initial Planning Document as outlined in the Canadian NPA Relief Planning Guideline. Typically, the initial R-NRUF will utilize Format 2 in Appendix A. In general, the CNA will conduct the initial R-NRUF when needed; however, the CNA should attempt to choose dates for the initial and subsequent R-NRUFs that will coincide with the annual G-NRUF and mid-year R/S-NRUF dates (e.g., as of January 1 and July 1 each year).
>
> Subsequent R-NRUFs will be conducted semi-annually to monitor CO Code forecast changes prior to implementing relief. These R-NRUFs shall be conducted until three months of when relief is implemented, or until they are replaced by S-NRUFs or J-NRUFs.

Based on the January 2024 NRUF results, the CNA determined that the following NPAs continue to be in the relief planning window:

- 236/250/257/604/672/778; and
- 416/437/647/942.

NPAs 249/683/705, 289/365/742/905, 343/613/753, 367/418/581, 368/403/587/780/825 and 782/902 are in the 6-year relief planning window based on the Guideline.

On 11 June 2021, CRTC staff agreed that future R-NRUFs should be performed at the area code level of detail where multiple area codes serve the same geographic area.

2. High Level Summary

On 30 October 2023, the CNA received a letter from the CRTC Secretary General (https://crtc.gc.ca/eng/archive/2023/lt231115a.htm) limiting the assignments and forecast of CO Codes based on the NRUF forecasts submitted for the July 2023 NRUF or earlier.

Based on the letter, the CNA also requested that all current and prospective CO Code Holders submit 2 versions of their forecast:

i. Form 1 where CO Code Holders could not exceed their July 2023 forecast; and

ii. Form 2 where CO Code Holders could forecast without being restricted by their previous forecasts.

As a result of the Secretary General's letter, the CNA was not expecting any Projected Exhaust Dates (PEDs) to advance during the six year forecast period in the Form 1 version of the July 2024 R- & S-NRUF. However, while the overall forecasts were reduced in the January 2024 results, some forecasts reverted to the July 2023 results which caused some PEDs in July 2024 to advance compared to the January 2024 results.

NPA complexes that are forecast to exhaust within 36 months are considered to be in the Relief Planning window in accordance with the *Canadian NPA Relief Planning Guideline* and NPA complexes that are forecast to exhaust in less than 72 months are considered to be in the R-NRUF window in accordance with the *Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline*.

The PED for NPA 367/418/581 has advanced based on the July 2024 R-NRUF results and is now forecast to exhaust in August 2027 which has put it in the Relief Planning window.

The following table shows those NPA complexes in the Relief Planning and R-NRUF windows with the latest PEDs. Additionally the previous PED from January 2024 is included:

NPA	PED from January 2024 NRUF	PED from July 2024 NRUF	Change in PED
236/250/604/672/778	Jan-2026	Feb-2026	Delayed 1 month
249/683/705	Dec-2029	Jul-2029	Advanced 5 months
289/365/742/905	Oct-2028	Nov-2028	Delayed 1 month
343/613/753	Jun-2029	Aug-2029	Delayed 2 months
367/418/581	May-2028	Aug-2027	Advanced 9 months
368/403/587/780/825	May-2029	Jun-2028	Advanced 11 months
416/437/647	Feb-2026	Apr-2026	Delayed 2 months
782/902	Mar-2029	Nov-2028	Advanced 4 months

The most recent R-NRUF data is summarized in the following chart.

	July 2024 R-NRUF Aggregate results							
	Actuals		Forecast					
NPA / Years	1-Jan. 2024	1-Jul. 2024	2025	2026	2027	2028	2029	2030
236/250/257/604/672/778	3399	3422	3789	3966	4212	4395	4547	4742
249/683/705	1454	1469	1752	1905	2009	2146	2303	2497
289/365/742/905	2410	2435	2681	2847	2971	3093	3244	3431
343/613/753	1549	1549	1810	1973	2103	2228	2343	2459
367/418/581	1722	1755	1986	2184	2311	2477	2614	2742

368/403/587/780/825	3192	3227	3473	3656	3801	3924	4105	4293
416/437/647/942	2115	2133	2278	2372	2501	2603	2710	2869
782/902	1236	1248	1344	1406	1478	1544	1629	1755

	July 2024 S-NRUF Aggregate results							
	Actuals		Forecast					
NPA / Years	1-Jan. 2024	1-Jul. 2024	2025	2026	2027	2028	2029	2030
6YY (NPA 622/633)*	748	843	1534	2231	3141	3817	4445	5409

* S-NRUF

NPA 236/250/257/604/672/778

NRUF data, including the most recent results, is summarized in the following chart.

NPA 236/250/604/672/778 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
236/250/257/604/672/778	January 2021 G-NRUF	23 February 2021	February 2027
236/250/257/604/672/778	July 2021 R-NRUF	19 August 2021	April 2027
236/250/257/604/672/778	January 2022 R-NRUF	1 March 2022	March 2027
236/250/257/604/672/778	July 2022 R-NRUF	16 September 2022	July 2026
236/250/257/604/672/778	January 2023 R-NRUF	29 March 2023	December 2025
236/250/257/604/672/778	July 2023 R-NRUF	18 August 2023	November 2025
236/250/257/604/672/778	January 2024 R-NRUF	28 March 2024	January 2026
236/250/257/604/672/778	July 2024 R-NRUF	11 September 2024	February 2026

NPA 249/683/705

NRUF data, including the most recent results, is summarized in the following chart.

NPA 249/683/705 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
249/683/705	January 2023 G-NRUF	29 March 2023	January 2029
249/683/705	July 2023 R-NRUF	18 August 2023	June 2029
249/683/705	January 2024 R-NRUF	28 March 2024	December 2029
249/683/705	July 2024 R-NRUF	11 September 2024	July 2029

NPA 289/365/742/905

NRUF data, including the most recent results, is summarized in the following chart.

NPA 249/683/705 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
289/365/742/905	January 2023 G-NRUF	29 March 2023	October 2028
289/365/742/905	July 2023 R-NRUF	18 August 2023	July 2028
289/365/742/905	January 2024 R-NRUF	28 March 2024	October 2028
289/365/742/905	July 2024 R-NRUF	11 September 2024	November 2028

NPA 343/613/753

NRUF data, including the most recent results, is summarized in the following chart.

NPA 343/613/753 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
343/613/753	January 2023 G-NRUF	29 March 2023	April 2029
343/613/753	July 2023 R-NRUF	18 August 2023	March 2029
343/613/753	January 2024 R-NRUF	28 March 2024	June 2029
343/613/753	July 2024 R-NRUF	11 September 2024	August 2029

NPA 367/418/581

NRUF data, including the most recent results, is summarized in the following chart.

NPA 367/418/581 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
367/418/581	January 2023 G-NRUF	29 March 2023	June 2027
367/418/581	July 2023 R-NRUF	18 August 2023	June 2027
367/418/581	January 2024 R-NRUF	28 March 2024	May 2028
367/418/581	July 2024 R-NRUF	11 September 2024	August 2027

NPA 368/403/587/780/825

NRUF data, including the most recent results, is summarized in the following chart.

NPA 403/587/780/825 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
368/403/587/780/825	January 2023 G-NRUF	29 March 2023	June 2028
368/403/587/780/825	July 2023 R-NRUF	18 August 2023	April 2028
368/403/587/780/825	January 2024 R-NRUF	28 March 2024	May 2029
368/403/587/780/825	July 2024 R-NRUF	11 September 2024	June 2028

NPA 416/437/647/942

NRUF data, including the most recent results, is summarized in the following chart.

NPA 416/437/647 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
416/437/647/942	January 2019 G-NRUF	26 March 2019	January 2024
416/437/647/942	July 2019 R-NRUF	20 September 2019	June 2025
416/437/647/942	January 2020 G-NRUF	24 March 2020	January 2025
416/437/647/942	July 2020 R-NRUF	18 August 2020	November 2025
416/437/647/942	January 2021 R-NRUF	23 February 2021	July 2026
416/437/647/942	July 2021 R-NRUF	19 August 2021	November 2025
416/437/647/942	January 2022 R-NRUF	1 March 2022	March 2026
416/437/647/942	July 2022 R-NRUF	16 September 2022	November 2026
416/437/647/942	January 2023 R-NRUF	29 March 2023	November 2025
416/437/647/942	July 2023 R-NRUF	18 August 2023	December 2025
416/437/647/942	January 2024 R-NRUF	28 Marcy 2024	February 2026
416/437/647/942	July 2024 R-NRUF	11 September 2024	April 2026

NPA 782/902

NRUF data, including the most recent results, is summarized in the following chart.

NPA 782/902 Summary of Projected Exhaust Dates			
NPA	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
782/902	January 2023 G-NRUF	29 March 2023	February 2028
782/902	July 2023 R-NRUF	18 August 2023	February 2028
782/902	January 2024 R-NRUF	28 March 2024	March 2029
782/902	July 2024 R-NRUF	11 September 2024	November 2028

NPA 622/633 (Non-Geo)

NRUF data, including the most recent results, is summarized in the following chart.

NPA 622 Summary of Projected Exhaust Dates			
NPA (Non-Geo)	**Type of C-NRUF**	**Date of Publication**	**Projected Exhaust Date**
622/633	January 2023 G-NRUF	29 March 2023	May 2024
622/633	July 2023 R-NRUF	18 August 2023	September 2023
622/633	January 2024 R-NRUF	28 March 2024	January 2024
622/633	July 2024 R-NRUF	11 September 2024	February 2025

Note: The current exhaust rate for Non-Geographic (6YY) NPAs is 1 per year for the next 22 years.

3. Schedule of Future R-NRUF Activities in the Current Year

No further R-NRUFs are scheduled to take place in this calendar year.

4. R-NRUF Assumptions

The assumptions used for the July 2024 R-NRUF are the assumptions that were provided on 15 December 2023 to the CNA by the Canadian Steering Committee on Numbering (CSCN) for conducting the January 2024 NRUF.

Item 4 of the Attachment to the 15 December 2023 letter states, in part:

> Where the CNA believes, based on its analysis of past growth and NRUF forecast data for an NPA, that the six-year forecast average annual growth may not be the best methodology for that NPA for projecting growth beyond the six-year forecast period, the CNA shall seek guidance from CRTC staff and will advise the CSCN of the alternative method used.

In this instance, the CNA compared the average forecast growth for the next five years, the median forecast growth for the next five years and the median and average historical growth for the past five years. The lowest number resulting from these calculations was the one used to identify the Projected Exhaust Date (PED) for each NPA.

Geographic NPAs	**Future PED Method**
236/250/257/604/672/778	Historical Average
249/683/705	Historical Average
289/365/742/905	Historical Average
343/613/753	Historical Average
367/418/581	Historical Average
368/403/587/780/825	Historical Average
416/437/647/942	Historical Average
782/902	Historical Average
Non-Geographic NPA(s)	**Future PED Method**
622/633	6-year Average

5. Summary of Challenges Encountered during the R-NRUF Process

The CNA sent an e-mail reminder on 16 July 2024 and started contacting individual companies during the last week of July to remind them of the 29 July 2024 due date. Nevertheless, some R-NRUF submissions were submitted late.

There was additional confusion between the Form 1 and Form 2 versions of the NRUF so some companies needed to resubmit.

6. Conclusion

In accordance with Section 4, Item 6 h) of the Guideline, the CNA has conducted assessments, sought clarification and/or explanation from various TSPs to reconcile 2024 growth with current and historical forecasts to determine whether the July 2024 R-NRUF results are reasonable and the PEDs for the impacted NPAs are realistic.

Non-Geographic NPA Growth is realistic, but it may change very quickly as new companies begin to provide Internet of Things (IoT)/ Machine-to-Machine services.

The CNA believes that emerging technology growth has been responsible for a good part of the recent demand. It is assumed that the introduction of the *Canadian Non-Geographic Code Assignment Guideline*, will alleviate some of the issues associated with IoT/Machine-to-Machine demand but it is difficult to quantify. Only some TSPs are applying for non-geographic codes, but not all.

Based on the data and explanations provided by TSPs in response to the CNA’s questions, the NRUF results appear reasonable and the PEDs for Canadian NPAs are generally realistic.