

**July 2020 R-NRUF Report – NPA 204/431, NPA 249/705, NPA 289/365/905,
NPA 343/613, NPA 403/587/780/825, NPA 416/437/647, NPA 438/514, NPA 450/579,
NPA 506, NPA 709 and NPA 819/873 to the
Canadian Steering Committee on Numbering (CSCN)**

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COM solve Inc.

Suresh Khare
150 Isabella Street, Suite 605
Ottawa, ON K1S 5H3

1. Purpose of R-NRUF

In accordance with the *Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline* (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 2020 G-NRUF results, the CNA determined that, in addition to NPA 249/705, NPA 289/365/905, NPA 343/613, NPA 403/587/780/825, NPA 416/437/647, NPA 438/514, NPA 450/579, NPA 506, NPA 709 and NPA 819/873, NPA 204/431 had also entered the 6-year relief planning window and NPA 306/639 was in a Jeopardy Condition.

2. High Level Summary

The results from the July 2019 R-NRUF are quite different from the January 2019 R-NRUF results due to various Telecommunications Service Providers (TSPs) submitting updated data. The CNA has verified the input from various TSPs and the variance from previous inputs can be rationalized.

These results were reviewed by the Canadian Steering Committee on Numbering (CSCN) and the Relief Planning Committees during a 27 August 2020 conference call.

Specific changes are listed below.

NPA	PED from January 2020 G- or R-NRUF	PED from July 2020 R-NRUF	Change in PED
204/431	January 2025	June 2024	Advanced 7 months

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NPA	PED from January 2020 G- or R-NRUF	PED from July 2020 R-NRUF	Change in PED
249/705	April 2026	May 2025	Advanced 11 months
289/365/905	March 2023	March 2023	No Change
343/613	June 2025	February 2024	Advanced 16 months
403/587/780/825	December 2022	November 2023	Delayed 11 months
416/437/647	January 2025	November 2025	Delayed 10 months
438/514	March 2026	December 2024	Advanced 15 months
450/579	October 2024	July 2024	Advanced 3 months
506	March 2024	March 2024	No Change
709	March 2024	June 2028	Delayed 51 months
819/873	July 2025	December 2023	Advanced 19 Months

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

NPA / Years	July 2020 R-NRUF Aggregate results							
	Actuals		Forecast					
	1-Jan. 2020	1-Jul. 2020	2021	2022	2023	2024	2025	2026
204/431	1210	1225	1332	1413	1508	1578	1649	1709
249/705	1148	1156	1249	1314	1368	1480	1573	1687
289/365/905	1953	2000	2159	2230	2381	2489	2571	2653
306/639	1432	1442	1546	1661	1698	1739	1789	1834
343/613	1231	1247	1362	1420	1489	1585	1717	1783
403/587/780/825	2840	2867	2927	3003	3121	3236	3347	3422
416/437/647	1836	1859	1925	2019	2119	2209	2312	2433
438/514	1245	1267	1330	1400	1468	1538	1630	1695
450/579	1244	1259	1344	1416	1489	1553	1668	1732
506	607	612	670	713	758	794	851	871
709	582	585	625	662	695	725	753	778
819/873	1234	1260	1384	1451	1525	1635	1700	1764
NPA / Years	1-Jan. 2020	1-Jul. 2020	2021	2022	2023	2024	2025	2026

NPA 204/431

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

NPA 204/431 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
204/431	January 2019 G-NRUF	26 March 2019	July 2026
204/431	January 2020 G-NRUF	24 March 2020	January 2025
204/431	July 2020 R-NRUF	18 August 2020	June 2024

NPA 249/705

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

NPA 249/705 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
249/705	January 2019 G-NRUF	26 March 2019	July 2025
249/705	July 2019 R-NRUF	20 September 2019	March 2026
249/705	January 2020 R-NRUF	24 March 2020	April 2026
249/705	July 2020 R-NRUF	18 August 2020	May 2025

NPA 289/365/905

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

NPA 289/365/905 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
289/365/905	January 2017 G-NRUF	29 March 2017	September 2023
289/365/905	July 2017 R-NRUF	25 September 2017	May 2023
289/365/905	January 2018 R-NRUF	20 March 2018	November 2022
289/365/905	July 2018 R-NRUF	5 September 2018	November 2021
289/365/905	January 2019 R-NRUF	26 March 2019	June 2022
289/365/905	July 2019 R-NRUF	20 September 2019	December 2022
289/365/905	January 2020 R-NRUF	24 March 2020	March 2023
289/365/905	July 2020 R-NRUF	18 August 2020	March 2023

NPA 343/613

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

NPA 343/613 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
343/613	January 2017 G-NRUF	29 March 2017	April 2025
343/613	January 2018 R-NRUF	20 March 2018	February 2024
343/613	July 2018 R-NRUF	5 September 2018	August 2022
343/613	January 2019 R-NRUF	26 March 2019	December 2023
343/613	July 2019 R-NRUF	20 September 2019	September 2025
343/613	January 2020 R-NRUF	24 March 2020	June 2025
343/613	July 2020 R-NRUF	18 August 2020	February 2024

NPA 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
403/587/780/825	January 2017 G-NRUF	29 March 2017	March 2022
403/587/780/825	July 2017 R-NRUF	25 September 2017	January 2023
403/587/780/825	January 2018 R-NRUF	20 March 2018	September 2022
403/587/780/825	July 2018 R-NRUF	5 September 2018	March 2022
403/587/780/825	January 2019 R-NRUF	26 March 2019	June 2022
403/587/780/825	July 2019 R-NRUF	20 September 2019	February 2022
403/587/780/825	January 2020 R-NRUF	24 March 2020	December 2022
403/587/780/825	July 2020 R-NRUF	18 August 2020	November 2023

NPA 416/437/647

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	January 2019 G-NRUF	26 March 2019	January 2024
416/437/647	July 2019 R-NRUF	20 September 2019	June 2025
416/437/647	January 2020 R-NRUF	24 March 2020	January 2025
416/437/647	July 2020 R-NRUF	18 August 2020	November 2025

NPA 438/514

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

NPA 438/514 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
438/514	January 2019 G-NRUF	26 March 2019	October 2023
438/514	July 2019 R-NRUF	20 September 2019	June 2024
438/514	January 2020 R-NRUF	24 March 2020	March 2026
438/514	July 2020 R-NRUF	18 August 2020	December 2024

NPA 450/579

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

NPA 450/579 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
450/579	January 2017 G-NRUF	29 March 2017	June 2022
450/579	July 2017 R-NRUF	25 September 2017	August 2023
450/579	January 2018 R-NRUF	20 March 2018	June 2021

NPA 450/579 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
450/579	July 2018 R-NRUF	5 September 2018	March 2021
450/579	January 2019 R-NRUF	26 March 2019	June 2024
450/579	July 2019 R-NRUF	20 September 2019	June 2024
450/579	January 2020 R-NRUF	24 March 2020	October 2024
450/579	July 2020 R-NRUF	18 August 2020	July 2024

NPA 506

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

NPA 506 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
506	January 2015 G-NRUF	27 March 2015	April 2025
506	January 2016 G-NRUF	21 March 2016	February 2021
506	July 2016 R-NRUF	12 October 2016	May 2020
506	January 2017 R-NRUF	29 March 2017	December 2021
506	July 2017 R-NRUF	8 September 2017	November 2024
506	January 2018 R-NRUF	20 March 2018	December 2021
506	July 2018 R-NRUF	5 September 2018	January 2022
506	January 2019 R-NRUF	26 March 2019	August 2022
506	July 2019 R-NRUF	20 September 2019	April 2023
506	January 2020 R-NRUF	24 March 2020	March 2024
506	July 2020 R-NRUF	18 August 2020	March 2024

NPA 709

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

NPA 709 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
709	January 2015 G-NRUF	27 March 2015	August 2024
709	January 2016 G-NRUF	21 March 2016	May 2019
709	April 2016 J-NRUF	15 May 2016	March 2019
709	July 2016 J-NRUF	2 September 2016	March 2019
709	October 2016 J-NRUF	5 December 2016	March 2019
709	January 2017 J-NRUF	29 March 2017	August 2019
709	April 2017 J-NRUF	2 June 2017	August 2019
709	July 2017 J-NRUF	5 September 2017	May 2023
709	January 2018 R-NRUF	20 March 2018	April 2023
709	July 2018 R-NRUF	5 September 2018	March 2023
709	January 2019 R-NRUF	26 March 2019	August 2023
709	July 2019 R-NRUF	20 September 2019	October 2023
709	January 2020 R-NRUF	24 March 2020	March 2023
709	July 2020 R-NRUF	18 August 2020	June 2028

NPA 819/873

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

NPA 819/873 Summary of Projected Exhaust Dates			
NPA	Type of C-NRUF	Date of Publication	Projected Exhaust Date
819/873	January 2019 G-NRUF	26 March 2019	October 2025
819/873	July 2019 R-NRUF	20 September 2019	March 2025
819/873	January 2020 R-NRUF	24 March 2020	July 2025
819/873	July 2020 R-NRUF	18 August 2020	December 2023

3. Schedule of Future R-NRUF Activities in this Calendar Year

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

4. R-NRUF Assumptions

The assumptions used for the July 2020 R-NRUF for NPAs 204/431, 249/705, 289/365/905, 343/613, 403/587/780/825, 416/437/647, 438/514, 450/579, 506, 709 and 819/873 are the assumptions that were provided on 16 October 2019 to the CNA by the Canadian Steering Committee on Numbering (CSCN) for conducting the January 2020 NRUF.

Item 4 of the 16 October 2019 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 PED for NPAs 204/431, 249/705, 289/365/905, 343/613, 403/587/780/825, 416/437/647, 438/514, 450/579, 506, 709, and 819/873 as per the following chart.

NPA	Future PED Method
204/431	Use Historical Average
249/705	Use Historical Median
289/365/905	Use Five Year Median
306/639	Use Five Year Median
403/587/780/825	Use Five Year Median

NPA	Future PED Method
416/437/647	Use Historical Median
438/514	Use Five Year Median
450/579	Use Historical Average
506	Use Five Year Median
709	Use Historical Average
819/873	Use Historical Average

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

The CNA sent an e-mail reminder on 27 July 2020 and started contacting individual companies during the first week of August to remind them of the 31 July 2020 due date. Nevertheless, some R-NRUF submissions were a few days late. Two companies were repeatedly reminded up to 6 August 2020.

6. Conclusion

In accordance with Section 4 of the *Canadian Numbering Resource Utilization Forecast (C-NRUF) Guideline*, the CNA has conducted an assessment, at a total aggregate level, to determine whether the July 2020 R-NRUF results are reasonable.

Numbering resource requirements for some Carriers in both the wireless and LEC services have been volatile over the last few years resulting in only moderately accurate short term and long term NRUF submissions. The CNA has endeavoured to mitigate this volatility by distinguishing companies that are establishing a footprint in an NPA from those that already have one.

The CNA believes that emerging technology growth has been responsible for a good part of the demand. It is assumed that the introduction of the *Canadian Non-Geographic Code Assignment Guideline*, may alleviate some of the issues associated with Machine-to-Machine demand but it is difficult to quantify. Only some TSPs are applying for non-geographic codes.

At this time, based on the data and supporting justifications provided by the various TSPs, the July 2020 R-NRUF results for NPA complexes 204/431, 249/705, 289/365/905, 343/613, 403/587/780/825, 416/437/647, 438/514, 450/579, 506, 709, and 819/873 are as realistic as they can be.