

**Report for January 2012 R-NRUF – NPAs 250-604-778, 289-905, 416-647 and 902
to the
Canadian Steering Committee on Numbering (CSCN)**

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1. Purpose of R-NRUF

The purpose of the General Numbering Resource Utilization Forecast (G–NRUF) is to provide an annual forecast to aid in projecting Numbering Plan Area (NPA) and North American Numbering Plan (NANP) exhaust. The G–NRUF requires current and prospective Code Holders to submit actual and forecasted annual data regarding their current and prospective future use of Central Office (CO) Codes to the Canadian Numbering Administrator (CNA) on an annual basis.

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 2010-152 dated 12 March 2010:

When an NPA is entering the timeframe for NPA Relief Planning (e.g., about 6 years 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 Guidelines.

Based on the 2011 G-NRUF results, the CNA determined that NPAs 250/604/778, 289/905, 416/647 and 902 were within the 6-year window for NPA relief planning. On 15 December 2011 the CNA requested R-NRUFs from current and prospective Canadian CO Code (NXX) Holders in those NPAs.

2. High Level Summary

The results from the January 2012 R-NRUF are different from the July 2011 R-NRUF results due to various Telecommunications Service Providers (TSPs) submitting a set of data to the CNA that is different from the January 2011 G- and R-NRUF data. The CNA has verified the input from various TSPs and the variance from previous input can be rationalized.

Specific changes are listed below:

- NPA 250/604/778 Projected Exhaust Date is now forecast for February 2014, which moves the Projected Exhaust Date in by seven (7) months from the July 2011 R-NRUF result of September 2014.

- NPA 289/905 Projected Exhaust Date is now forecast for July 2014, which moves the Projected Exhaust Date out by three (3) months from the July 2011 R-NRUF result of April 2014.
- NPA 416/647 Projected Exhaust Date is now forecast for July 2013, which moves the Projected Exhaust Date in by nine (9) months from the July 2011 R-NRUF result of April 2014.
- NPA 902 Projected Exhaust Date is now forecast for January 2016, which moves the Projected Exhaust Date in by one (1) year and three (3) months from the July 2011 R-NRUF result of April 2017.

NPA 250/604/778

| NPA 250/604/778 January 2012 R-NRUF Aggregate Results | | | | | | |
|--|--|---------------|------------|------------|------------|------------|
| Actual | Forecast | | | | | |
| Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | | | | | |
| 2012-01-01 | 2013-01-01 | 2014-01-01 | 2015-01-01 | 2016-01-01 | 2017-01-01 | 2018-01-01 |
| 2052 | 2261 | 2381 | 2518 | 2635 | 2755 | 2839 |
| Projected Exhaust Date | | February 2014 | | | | |
| Note - Telecom Notice of Consultation CRTC 2010-815 | | | | | | |
| Note - Relief Date 1 June 2013 - Telecom Decision CRTC 2011-451 | | | | | | |

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

| NPA 250/604/778 Summary of Projected Exhaust Dates | | | |
|--|-----------------------|---------------------|------------------------|
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 250/604/778 | January 2009 G-NRUF | 29 May 2009 | December 2019 |
| 250/604/778 | January 2010 G - NRUF | 1 April 2010 | July 2016 |
| 250/604/778 | July 2010 R – NRUF | 13 September 2010 | August 2016 |
| 250/604/778 | January 2011 R - NRUF | 5 April 2011 | November 2014 |
| 250/604/778 | July 2011 R – NRUF | 7 October 2011 | September 2014 |
| 250/604/778 | January 2012 R – NRUF | 10 April 2012 | February 2014 |

NPA 289/905

| NPA 289/905 January 2012 R-NRUF Aggregate Results | | | | | | |
|--|--|-------------|------------|------------|------------|------------|
| Actual | Forecast | | | | | |
| Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | | | | | |
| 2012-01-01 | 2013-01-01 | 2014-01-01 | 2015-01-01 | 2016-01-01 | 2017-01-01 | 2018-01-01 |
| 1357 | 1472 | 1552 | 1643 | 1719 | 1799 | 1888 |
| Projected Exhaust Date | | August 2014 | | | | |
| Note - Telecom Notice of Consultation CRTC 2009-310 | | | | | | |
| Note - Relief Date 25 March 2013 - Telecom Decision CRTC 2010-481 | | | | | | |

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

| NPA 289/905 Summary of Projected Exhaust Dates | | | |
|---|---|---------------------|------------------------|
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 289/905 | G-NRUF January 2007 | 5 April 2007 | March 2017 |
| 289/905 | G-NRUF January 2008 | 25 March 2008 | August 2014 |
| 289/905 | R-NRUF July 2008 | 5 April 2007 | August 2024 |
| 289/905 | G-NRUF January 2009 | 15 May 2009 | May 2015 |
| 289/905 | G – NRUF (Updated Jan 2009 due to change in Carriers' forecasts) | | February 2014 |
| 289/905 | R - NRUF June 2009, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 12 June 2009 | October 2016 |

| NPA 289/905 | | | |
|---|--|----------------------------|-------------------------------|
| Summary of Projected Exhaust Dates | | | |
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 289/905 | R - NRUF January 2010, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 1 April 2010 | April 2014 |
| 289/905 | R - NRUF July 2010, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 13 September 2010 | March 2015 |
| 289/905 | R - NRUF January 2011, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 5 April 2011 | April 2015 |
| 289/905 | R - NRUF July 2011, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 7 October 2011 | April 2014 |

| NPA 289/905 | | | |
|---|--|----------------------------|-------------------------------|
| Summary of Projected Exhaust Dates | | | |
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 289/905 | R - NRUF January 2012, adjusted per Telecom Notice of Consultation CRTC 2009-310 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 15 for initial code assignments for New Entrants | 10 April 2012 | July 2014 |

NPA 416/647

| NPA 416/647 January 2012 R-NRUF Aggregate Results | | | | | | |
|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| Actual | Forecast | | | | | |
| Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | | | | | |
| 2012-01-01 | 2013-01-01 | 2014-01-01 | 2015-01-01 | 2016-01-01 | 2017-01-01 | 2018-01-01 |
| 1319 | 1508 | 1677 | 1832 | 1990 | 2152 | 2295 |
| Projected Exhaust Date | July 2013 | | | | | |
| Note - Telecom Notice of Consultation CRTC 2010-490 | | | | | | |
| Note - Relief Date 25 March 2013 - Telecom Decision CRTC 2011-436 | | | | | | |

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

| NPA 416/647 | | | |
|---|-----------------------|----------------------------|-------------------------------|
| Summary of Projected Exhaust Dates | | | |
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 416/647 | G-NRUF January 2009 | 15 May 2009 | October 2021 |
| 416/647 | G-NRUF January 2010 | 1 April 2010 | July 2015 |

| NPA 416/647 | | | |
|---|--|----------------------------|-------------------------------|
| Summary of Projected Exhaust Dates | | | |
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| 416/647 | R - NRUF July 2010, adjusted per Telecom Notice of Consultation CRTC 2010-490 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 10 for initial code assignments for New Entrants | 13 September 2010 | October 2015 |
| 416/647 | R - NRUF January 2011, adjusted per Telecom Notice of Consultation CRTC 2010-490 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 10 for initial code assignments for New Entrants | 5 April 2011 | May 2015 |
| 416/647 | R - NRUF July 2011, adjusted per Telecom Notice of Consultation CRTC 2010-490 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 10 for initial code assignments for New Entrants | 7 October 2011 | April 2014 |
| 416/647 | R - NRUF January 2012, adjusted per Telecom Notice of Consultation CRTC 2010-490 directive to set aside 7 CO Codes for initial code assignments for Carriers already providing service, and 10 for initial code assignments for New Entrants | 10 April 2012 | July 2013 |

NPA 902

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

| NPA 902 January 2012 R-NRUF Aggregate Results | | | | | | |
|--|--|------------|------------|--------------|------------|------------|
| Actual | Forecast | | | | | |
| Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | Total quantity of existing CO Codes assigned & reserved plus unassignable CO Codes as of | | | | | |
| 2012-01-01 | 2013-01-01 | 2014-01-01 | 2015-01-01 | 2016-01-01 | 2017-01-01 | 2018-01-01 |
| 662 | 722 | 746 | 777 | 797 | 833 | 854 |
| Projected Exhaust Date | | | | January 2016 | | |

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

| NPA 902 Summary of Projected Exhaust Dates | | | |
|---|-----------------------|---------------------|------------------------|
| NPA | Type of C-NRUF | Date of Publication | Projected Exhaust Date |
| | G-NRUF January 2010 | 1 April 2010 | February 2018 |
| 902 | G - NRUF January 2011 | 5 April 2011 | May 2017 |
| 902 | R - NRUF July 2011 | 7 October 2011 | April 2017 |
| 902 | R - NRUF January 2012 | 10 April 2012 | January 2016 |

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

| Due Date | NRUF Type | NRUF Format | NPA's |
|----------|-----------|-------------|--|
| August 7 | R-NRUF | Format 2 | 226/519 250/604/778 289/905 403/587/870 416/647 902 |

4. R-NRUF Assumptions

The assumptions used for the January 2012 R-NRUF for NPAs 250/604/778, 289/905, 416/647 and 902 are the assumptions that were provided on 25 October 2011 to the CNA by the Canadian Steering Committee on Numbering (CSCN) for conducting the 2012 G-NRUF.

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

One TSP continues to remain unaware of the significance and schedule for completing R-NRUFs. The CNA started contacting companies on January 16, 2012 to remind them of the February 1, 2012 due date.

Some TSPs continued to revise their NRUFs till March 15, 2012.

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 January 2012 R-NRUF results are reasonable and the Projected Exhaust Dates for NPAs 250/604/778, 289/905, 416/647 and 902 are realistic.

Numbering resource requirements for some Carriers in both the wireless and CLEC services have been volatile over the last few years resulting in only moderately accurate short term and long term NRUF submissions. LTE/4G and CLEC growth has been responsible for a good part of the demand however there is also the issue of machine-to-machine market demands. With machine-to-machine's potential to touch so many areas of life, including health care, transportation, security and energy, the potential for increased demand in CO Codes is not easy to quantify. Given the accuracy of some of the submissions, in the CNA's opinion the January 2012 R-NRUF results for NPAs 250/604/778, 289/905, 416/647 and 902 are as reasonable as they can be and, therefore, the Projected Exhaust Dates for the NPAs are generally realistic, based on the information provided by those current and prospective CO Code Holders that submitted data.