

## NANPA's NPA Relief Planning Model

Relief planners use a model to estimate the impact of different area code relief alternatives. The model:

- Provides consistency in the alternatives presented to the industry during the relief planning process;
- Mechanizes the more routine calculations and data manipulation tasks, eliminating calculation errors; and
- Allows relief planners to respond to industry requests for changes to relief alternatives or to new "what if" alternatives, thus minimizing the need for additional relief planning meetings or teleconferences.

The Model is written in Microsoft Excel™ and Microsoft Visual Basic™.

### Functions of the Model

The model provides these functions:

- Extraction of rate center and assignee information from NANPA's files, both for the current month and the same month from the previous year.
- Comparison and validation of data.
- Use of the most current NRUF forecast data.
- Manipulation of data (e.g., movement of rate centers from one side of a proposed split line to another) to permit the calculation of the exhaust of the NPA under study with various alternatives.

These functions are described in more detail below.

**Data extraction** - The model extracts information from NANPA's files, placing the data, sorted by rate center, in tables. Next, the model counts central office codes, for each rate center and rate center history.

**Comparison and Validation of Data** - After extracting data, the model compares rate center information between the data from the current files and the previous information. If rate center discrepancies are found, the model flags them, allowing the planner to make adjustments. Possible reasons for the discrepancies include recent NPA relief, rate center consolidation, simple misspellings, or the addition or deletion of specific rate centers.

**NRUF Forecast Application** - The model extracts forecasted central office exhaust date for the NPA from the most current NRUF projections. For calculating the lives associated with different relief alternatives, however, forecasted central office code growth must be distributed across rate centers. The model applies uniform application of the NRUF forecast across all rate centers.

The growth is spread across existing rate centers at a rate proportional to the percentage of existing codes in that rate center. For example, the model will allocate twice as many growth codes to a rate center with twelve codes than it would to a rate center with six codes. With this

approach, the planner may have to make some adjustments to account for rounding. Also, the planner may redistribute growth among the rate centers in anticipation of events that will occur during the planning or relief period.

This does not allow for central office code growth or NPA exhaust different from that identified in the current NRUF. In cases where more flexibility is needed, the model allows the planner to enter the growth rate for each rate center.

The model can accommodate negative growth, which can occur when codes are returned, rate centers are consolidated, etc.

### **Manipulation of data to calculate the exhaust of various alternatives**

Once the forecasted growth is applied to the individual rate centers in the affected NPA, the planner will choose and evaluate different relief alternatives. The planner can select from five types of alternatives. These include:

- Two-way NPA splits,
- A concentrated growth overlay, and
- A distributed (all services) overlay.

For split alternatives, the planner identifies which rate centers will move and which will remain in the old NPA.

### **Model Assumptions**

The assumptions used in the model assist the planner to insure consistency among the various relief planning activities. The major assumptions that are included in the model are:

- The forecast growth can be applied linearly.
- Lives of the relief alternatives can be calculated from the exhaust date of the NPA.
- The model should apply the same standard forecast assumptions to all alternatives selected.
- The information in the NANPA files represents the complete and correct attributes of the individual codes.

### **Outputs**

For each relief alternative examined, the summary sheet identifies the months (or years) to exhaust, a summary of the planner-selected options, and summary of the NRUF information. These printouts are included, when appropriate, with presentations to the Industry, in State Commission filings, and in the Initial Planning Document (IPD).

## **Summary**

The model provides a consistent, yet highly flexible planning tool to enhance the NPA relief planning process. The model allows the planner to be responsive to the needs of the industry and evaluate revised or completely new alternatives in relatively short time. Alternatives can be tested and discarded if inappropriate, resulting in concentrated efforts on credible alternatives to aid in the industry consensus process and, ultimately, for submission to regulators for approval.