```
--*****************************************************************
-- Name    : CurSelCubeHybridNonPop
-- Date    : October 2017
-- Author : Mohamed Houri
-- Purpose: gives the selectivity low and high value range of a Hybrid
--          non-popular histogram bind variable having an endpoint number
--          when this bind variable is used in a bind aware cursor
--*****************************************************************
var num_rows    number
var new_density number

begin
 select num_rows into :num_rows from all_tables where table_name = 'ACS_TEST_TAB';
end;
/

begin
     SELECT
         trunc(((BktCnt-PopBktCnt)/BktCnt)/(NDV-PopValCnt),10)
               into :new_density
     FROM
        (SELECT
            COUNT(1) PopValCnt,
            SUM(endpoint_repeat_count) PopBktCnt,
            ndv,
            BktCnt,
            pop_bucketSize
         FROM
          (SELECT
            (sample_size - num_nulls) BktCnt,
            num_distinct ndv,
            num_buckets,
            density OldDensity,
            (sample_size-num_nulls)/num_buckets pop_bucketSize
          FROM user_tab_col_statistics
          WHERE
             table_name  = 'ACS_TEST_TAB'
          AND column_name = 'RECORD_TYPE'
          ),
          user_histograms
        WHERE table_name         = 'ACS_TEST_TAB'
        AND column_name          = 'RECORD_TYPE'
        AND endpoint_repeat_count> pop_bucketSize
        GROUP BY ndv,
          BktCnt,
          pop_bucketSize
        );
end;
/

col bind format a10
select
    bind
   ,round((sel_of_bind - offset),6) low
   ,round((sel_of_bind + offset),6) high
from
    (select
       bind
     ,value_count/:num_rows        sel_of_bind
        ,0.1*(value_count/:num_rows) offset
     from
      (select
            endpoint_actual_value bind
          ,(:num_rows*greatest(:new_density,endpoint_repeat_count/sample_size))
value_count
        from
           (select
            sample_size
                ,endpoint_actual_value
          ,endpoint_repeat_count
          from (select
```

```
                        ucs.sample_size
                        ,uth.endpoint_actual_value
                        ,uth.endpoint_repeat_count
                    from
                        user_tab_histograms uth
                    ,user_tab_col_statistics ucs
                where
                        uth.table_name    = ucs.table_name
                and uth.column_name    = ucs.column_name
                and uth.table_name     = 'ACS_TEST_TAB'
                and uth.column_name    = 'RECORD_TYPE'
                    )
                )
        )
    )
where bind = &bind
    ;
```