# MPower$^2$

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# Goals

- Provide customers with more options
  - Year-round availability
  - Ability to select months/days/hours they can participate
  - Ability to black out key dates
  - Ability to earn more for responding more quickly
- Lower the variable (energy) payment to be more in line with the market
- Increase accuracy of baseline methodology to reduce free ridership (switch to an “Average of Last Ten Days” methodology)
- Provide KCP&L with year-round coverage, particularly the winter intra-day dual peak
- Provide KCP&L with a quicker response from DR resources

# New Program Features

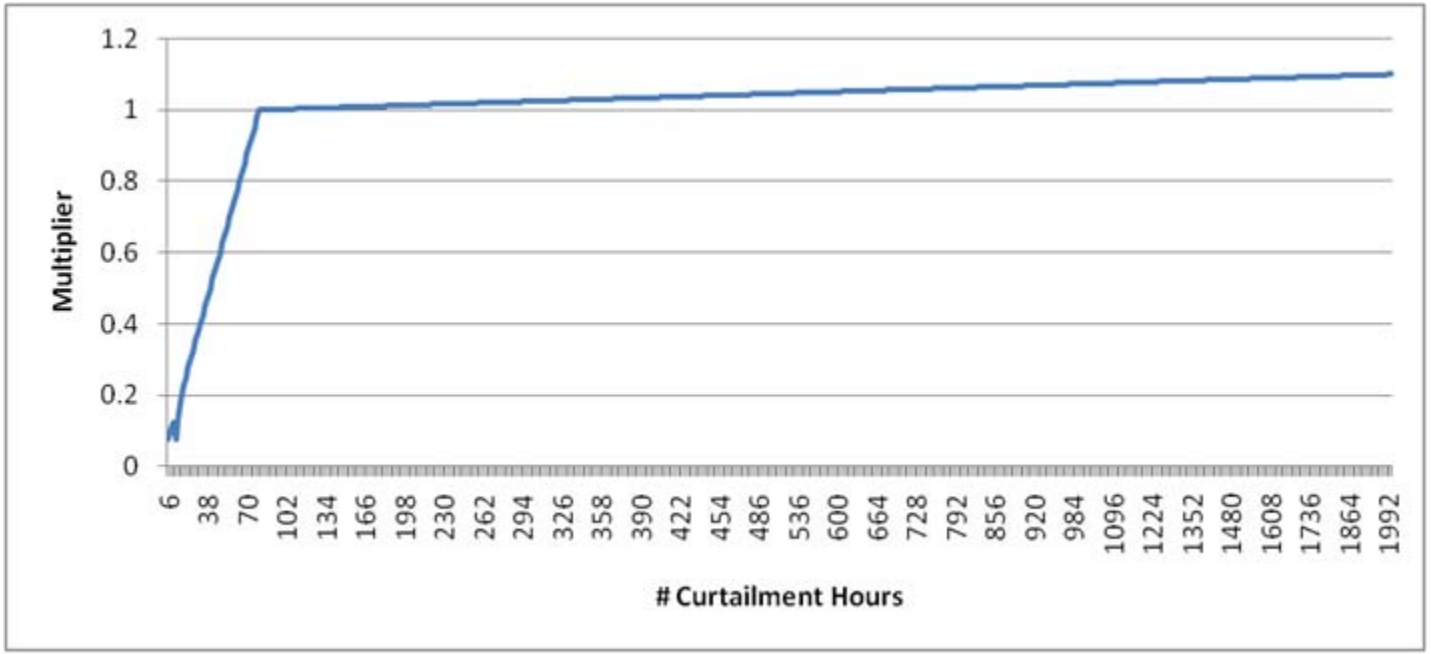
- Begins with a "Contract Term Monthly Capacity Price"
  - One-year contract = $3.813/kW/month
  - Three-year contract = $4.958/kW/month
  - Five-year contract = $6.864/kW/month
- Variable min required notice
  - 24 hours = multiplier of .9
  - 4 hours = multiplier of 1
  - 30 minutes = multiplier of 1.1
- Variable curtailment hours
  - 7 a.m. – 11 a.m. = multiplier of .05
  - 11 a.m. – 3 p.m. = multiplier of .45
  - 3 p.m. – 7 p.m. = multiplier of .45
  - 7 p.m. – 11 p.m. = multiplier of .05
  - Customer can choose any combination of these blocks, and the multipliers are additive, i.e. if they choose all blocks, they have a multiplier of 1

# New Program Features (Cont.)

- Customer chooses months of year available
  - Jul & Aug = multiplier of .238
  - Jan & Feb = multiplier of .107
  - Jun, Sep, Nov & Dec = multiplier of .066
  - Mar, Apr, May & Oct = .012
  - These are additive, so if all 12 months are chosen, the multiplier is 1
- Customer chooses blackout dates
  - Each day chosen reduces payment by same percentage as it reduces number of hours customer is available
  - Customer can choose as many blackout dates as desired
- Customer chooses max curtailment length & max # curtailments
  - Max length = 2, 4 or 8 hours
  - Max # curtailments = 3 to 250
  - Max curtailment length is multiplied by max # curtailments to determine max # event hours
  - The max number of event hours corresponds to a multiplier looked up in a table (see next slide)

# New Program Features (Cont.)

- Increases linearly from 6 to 80 hours, at a high rate
- Multiplier of 1 at 80 hours
- Increases linearly from 81 to 2,000 hours at a lower rate
- Multiplier of 1.1 at 2,000 hours



# New Program Features (Cont.)

- Customer chooses max # consecutive curtailment days
  - 1 day = multiplier of .96
  - 2 days = multiplier of .98
  - 3 days = multiplier of 1
  - 5 days = multiplier of 1.05

# Sample Calculation

- Assume a customer chooses the following parameters
  - Min notice = 4 hours (multiplier of 1)
  - Hours of day available (customer picks each of the four four-hour blocks
    - 7 a.m. – 11 a.m. = multiplier of .05
    - 11 a.m. – 3 p.m. = multiplier of .45
    - 3 p.m. – 7 p.m. = multiplier of .45
    - 7 p.m. – 11 p.m. = multiplier of .05
    - Total multiplier = .05+.45+.45+.05 = 1
  - Months of year available (customer picks Jun, Jul, Aug & Sept)
    - Jun = multiplier of .0655
    - Jul = multiplier of .2380
    - Aug = multiplier of .2380
    - Sep = multiplier of .0655
    - Total multiplier = .0655+.2380+.2380+.0655 = .607

# Sample Calculation (Cont.)

- Blackout dates (assume customer blacks out first Tue of each month)
  - 6/7/11, 7/5/11, 8/2/11, 9/6/11
  - This represents 4 of 86 potential curtailment days = .0465
  - This customer is available on (1-.0465) curtailment days = multiplier of .9535
- Max curtailment length & max # curtailments
  - 8 hours
  - 10 curtailments
  - 8 hours x 10 curtailments = 80 curtailment hours
  - Lookup curtailment hours in Event-Hour multiplier table = multiplier of 1
- Max number of consecutive curtailment days
  - Customer chooses five = multiplier of 1.05

# Sample Calculation (Cont.)

- Summary of multipliers
  - Min notice = mutliplier of 1
  - Hours of day available = multiplier of 1
  - Months of year available = multiplier of .607
  - Blackout dates = multiplier of .9535
  - Max curtailment length & max # curtailments = multiplier of 1
  - Max consecutive curtailments = multiplier of 1.05
- The product of the multipliers is 1(1)(.607)(.9535)(1)(1.05) = .6077
- Multiply the product of the multipliers by the contract-term-monthly-capacity price, in this case it's a five-year contract, so we use a constant of $6.864, yielding 6.864(.6077) = $4.171/kW/month, or $50.06/kW/year