

DADRP Billing Calculations

Definitions:

- **X = fixed load bid (not incl. Interruptible load/standby gen. Bids)**
- **Y_{bid} = interruptible load bid**
- **Y_{acc} = interruptible load chosen by SCUC**
- **Z = real-time load interruption**
- **$Load_{rt}$ = real-time load as metered**
- **$LBMP_{dam}$ = day-ahead LBMP**
- **$LBMP_{rt}$ = real-time LBMP**

Interruptible Load

DAM Load purchase: $\text{LBMP}_{\text{dam}} * (X + Y_{\text{bid}})$

Incentive: $-\text{LBMP}_{\text{dam}} * Z$

Reduction payment: $\max(\text{bid}, \text{LBMP}_{\text{dam}}) * Y_{\text{acc}}$

Real-time load balancing: $[\text{Load}_{\text{rt}} - (X + Y_{\text{bid}} - Z)] * \text{LBMP}_{\text{rt}}$

Penalty: $1.10 * (Y_{\text{acc}} - Z) * \max(\text{LBMP}_{\text{dam}}, \text{LBMP}_{\text{rt}})$

Standby Generation

DAM Load purchase: $\text{LBMP}_{\text{dam}} * (X + Y_{\text{bid}})$

Incentive: 0

Reduction payment: $\max(\text{bid}, \text{LBMP}_{\text{dam}}) * Y_{\text{acc}}$

Real-time load balancing: $(\text{Load}_{\text{rt}} - X) * \text{LBMP}_{\text{rt}}$

Penalty: 0