

1 Wind Integration Study were modeled in GRID using the same methodology employed
2 by the Company to model reserves for load and wind in its filing.

3 **Q. WHAT AMOUNT OF WCA RESERVE SAVINGS DID THE 2012 WIND**
4 **INTEGRATION STUDY ASSOCIATE WITH 30-MINUTE BALANCING?**

5 A. The 2012 Wind Integration Study calculated that the WCA regulation reserve
6 requirement would decline by approximately 30 percent as a result of moving to 30-
7 minute balancing.^{76/} Moving to 5-minute balancing, as is accomplished in the EIM, will
8 likely result in an even greater level of reserve savings.

9 **Q. DO THE WITHIN-HOUR DISPATCH BENEFITS OVERLAP WITH**
10 **FLEXIBILITY RESERVE DIVERSITY?**

11 A. No. The E3 study was clear when it stated: “Production simulation analysis [was]
12 modeled at [an] hourly level, omitting potential benefits of sub-hourly dispatch (other
13 studies indicate that these benefits could be substantial).”^{77/} In addition, because the
14 various EIM benefit components have been modeled in GRID, the final balancing
15 adjustment detailed in Table 2 removes any overlaps between components.

16 **Q. WHAT IS THE IMPACT OF MODELING THE RESERVE REDUCTIONS**
17 **ATTRIBUTABLE TO 30-MINUTE BALANCING PRESENTED IN THE 2012**
18 **WIND INTEGRATION STUDY?**

19 A. Modeling the approximate 30 percent reduction to regulation reserves in the GRID model
20 study resulted in a \$3.03 million reduction to WCA NPC, with \$702,450~~65,951~~ allocated
21 to Washington. This amount represents a conservative provision for the savings
22 associated with within-hour EIM dispatch benefits.

^{76/} Id. at 123.

^{77/} Exh. No.__(BGM-5 at 37)