Summary of Updates to Data and Assumptions in National Assessment of DR Potential

Data Updates ("Bottom-up")

Data Item	Original Methodology	Update	Direction of Change
Current participation in DR programs - Pricing with Technology - Pricing without Technology - Automated/DLC - Interruptible/Curtailable Tariffs - Other DR Programs	Based on analysis using the 2008 FERC Demand Response Survey data.	Updated both the percentage and MW participation levels for WECC states using the 2010 FERC Demand Response Survey data. In most cases, the participation levels increased by reasonable amounts between the two years of survey data, including those that were previously at 0% participation. In a few cases, participation decreased.	Overall, this change increased potential DR peak reductions by a small amount.
Current AMI Deployment	Based on analysis of six different sources: KEMA's Perspectives for Job Creation (2008), 2008 FERC Survey, 2008 Utilipoint examination of AMI initiatives, Enermex Smart Meter Data, 2008 FERC Staff Report, IEE survey on smart meter deployment.	Updated the starting AMI deployment using the 2010 FERC Assessment. In most cases, AMI penetration rates increased by a reasonable amount. To get each year's estimate of AMI penetration, the same shape of growth was used as in the original FERC model. The penetration rate in the final year of the forecast was not changed here (see below in Scenario Assumption Updates).	This change causes slightly higher DR potential in the first years of the forecast, but by the end of the forecast there is no impact from this change.
System Peak Load Forecast	Based on regional NERC forecasts from 2008 and allocated across states using total electric sales by state from 2006 EIA data.	Updated the total WECC-US system peak load forecast using NERC's 2010 Long-Term Reliability Assessment. Consistent with the previous methodology in the FERC model, the peak load was allocated to states using the 2010 electric sales by state. The allocation factors are relatively close to what they were in the original FERC model. In order to keep the model consistent, the starting population numbers were scaled by the same amount as the peak load change. (This is a technical change required so that the model produces accurate results, but does not imply real changes in the starting population numbers.)	This does not significantly change the potential DR reduction in percentage terms, although there is a large drop in MW terms.

Scenario Assumption Updates ("Top-down")

Data Item	Original Methodology	Update	Direction of Change
Forecasted AMI Deployment	The Achievable Participation scenario assumes 100% deployment by the end of the forecast. In the Expanded BAU scenario, AMI deployment varies by state based largely on the continuation of current trends. The analysis was done on a state-by-state basis.	At this point, made no changes to the final penetration rates. Could potentially research on a state-by-state basis, but wouldn't expect major changes from when that was done in 2008.	No change.
Pricing Program Participation	Depends on AMI market penetration and assumptions for enrollment. 5% of eligible customers enroll in Expanded BAU scenario and 60%/75% of eligible customers enroll in Achievable Participation scenario.	Updated enrollment assumptions in Expanded BAU Scenario based on 2011 Faruqui/Mitarotonda Survey ("Energy Efficiency and Demand Response in 2020 - A Survey of Expert Opinion"). Northwest states (WA, OR, ID, MT, WY) remained at 5% due to lack of interest in dynamic pricing. The other states were considered on a state by state basis based on survey results. E.g., California will be high at 20%. 13.75% was used for most WECC states for residential customers (average of 7.5% low and 20% high estimate), and 20% was used for most WECC states C&I customers (average of 10% low estimate and 30% high estimate)	This change creates slightly higher potential DR impacts in the Expanded BAU scenario.
Customers with Enabling Technology	Based on percent of customers eligible for enabling technology, percent of customers offered enabling technology (0% in Expanded BAU, 95% in Achievable Participation), and percent of eligible customers accepting enabling technology (60% in Achievable Participation).	No changes made.	No change.
Non-Pricing Program Participation - Automated/DLC - Interruptible/Curtailable Tariffs - Other DR Programs	Determined using "best practices" developed using survey data from FERC's 2008 Assessment of Demand Response and Smart Metering. The same percentages are used in each scenario, but applied to the segment of the population that is *not* participating in dynamic pricing, so absolute participation varies. Also varies by customer class.	Used averages of low and high estimates from Faruqui/Mitarotonda survey for residential and large C&I. No changes to small and medium C&I assumptions. Residential DLC participation decreases and Large C&I participation in interruptible tariffs and other DR increases.	Produces insignificant movements. Achievable increases slightly and Expanded BAU decreases slightly.
Pricing Program Impacts (per customer)	Based on PRISM analysis with East of Rockies downward adjustment for humidity.	Changed PRISM impacts for residential customers based on ARC of Price Responsiveness. The non-CAC/CAC impacts decreased slightly, and the enabling technology impact decreased significantly.	Lowers results slightly.

Non-Pricing Program Impacts (per customer) - Automated/DLC - Interruptible/Curtailable Tariffs - Other DR Programs	Based on range of reported impacts from existing programs using the 2008 FERC DR Survey and DLC evaluation reports.	Scaled up the original amounts by 23% for C&I customers based on 2010 FERC DR Survey. Overall, potential DR impacts from the FERC Survey increased from the 2008 to the 2010 versions. The residential potential DR was roughly the same, while the C&I potential DR increased by 23%.	Increases results slightly.