

# Updated Utah Stipulation Avoided Cost Study

## Overview

The Company updated the avoided cost model that was the basis for the Utah Stipulation in Docket No. 03-035-14 (“Stipulation”). The update consists of three parts. First, the Company's Load & Resource (L&R) study was updated to determine the resource sufficiency period. Second, an updated production cost simulation (GRID run) was used to determine the sufficiency period avoided costs. Third, the settlement avoided cost model was updated to reflect the revised sufficiency period, current gas forecasts and proxy plant assumptions consistent with the 2005 IRP study.

The attached spreadsheets provide information to support the updated avoided costs numbers included in the table below. For points of reference, the table also provides the current avoided costs on an annual and 20-year levelized basis for both of the energy price options included in the Stipulation (fixed energy price, column 3 of Appendix A and variable energy prices, column 4 and associated narrative in Appendix A). Under the current Stipulation, the fixed energy price option with stipulated capacity costs results in a \$50.03 20-year levelized price. The variable energy price option with stipulated capacity costs results in a \$63.63 20-year levelized price.

## Load & Resources (L&R)

The L&R study used for the 2004 settlement agreement was completed in January 2004. Loads and long-term sales are virtually identical between the current L&R and the prior L&R. Long-term purchases have increased primarily due to new QF resources and the Desert Power purchase. Thermal resources have increased with the inclusion of the Currant Creek and Lake Side plants. Overall, the resource sufficiency period has shifted from July 2007 to January 2011.

A summary of the L&R is shown below.

<b>L&amp;R Summary</b>			
Surplus / (Deficit)			
Year	Energy	July Peak	January Peak
2005	(67)	(841)	(465)
2006	191	(718)	33
2007	364	(1,275)	(171)
2008	442	(1,756)	618
2009	343	(1,820)	292
2010	76	(1,927)	31
2011	(97)	(2,345)	(164)

## Production Cost Simulation (GRID run)

The Company prepared a GRID run for the period 2005 through 2012. Loads were consistent with the loads used in the IRP. Gas prices and market prices were updated to the Company's December 30, 2004 Official Price Projections. The Company included a summer super peak purchase starting in 2010. Consistent with the methodology used in the settlement, avoided costs were calculated using a 10 MW zero cost avoided cost resource added in the East Main (Utah) transmission bubble.

## Avoided Cost Model

The company updated the avoided cost model used in the settlement agreement for the revised sufficiency period, gas forecast from the Company's December 2004 Official Price Projection and proxy unit assumptions consistent with the Company's 2005 IRP report.

A comparison of Updated settlement avoided cost prices are shown below.

Year	Utah Stipulation May 2004		Updated Stipulation Feb 2005		Avoided Costs at 85% CF		
	Capacity	Energy	Capacity	Energy	(A) Approved Appendix A with Fixed Energy Price Option	(B) Updated Appendix A	(C) Approved Appendix A with Variable Energy Price Option
	\$/kw-yr	\$/MWh	\$/kw-yr	\$/MWh	(\$/MWH)	(\$/MWH)	(\$/MWH)
2005	\$31.88	\$39.80	\$36.00	\$44.82	\$44.08	\$49.66	\$59.40
2006	\$78.42	\$38.01	\$24.48	\$39.02	\$48.54	\$42.31	\$61.42
2007	\$86.71	\$34.52	\$43.71	\$34.46	\$46.17	\$40.33	\$56.24
2008	\$95.37	\$32.35	\$25.48	\$37.09	\$45.16	\$40.51	\$54.87
2009	\$97.76	\$32.33	\$26.00	\$39.32	\$45.46	\$42.81	\$57.44
2010	\$100.20	\$31.62	\$26.52	\$45.18	\$45.08	\$48.74	\$62.27
2011	\$102.71	\$32.25	\$105.43	\$52.98	\$46.04	\$67.14	\$63.41
2012	\$105.27	\$33.38	\$108.53	\$52.62	\$47.52	\$67.19	\$63.27
2013	\$107.91	\$34.12	\$111.72	\$52.20	\$48.61	\$67.21	\$63.16
2014	\$110.60	\$34.84	\$115.01	\$52.11	\$49.69	\$67.55	\$63.35
2015	\$113.37	\$35.76	\$118.39	\$51.98	\$50.99	\$67.88	\$63.71
2016	\$116.20	\$36.92	\$121.87	\$53.15	\$52.53	\$69.52	\$65.33
2017	\$119.11	\$37.99	\$125.45	\$54.56	\$53.98	\$71.41	\$67.00
2018	\$122.09	\$39.12	\$129.14	\$56.04	\$55.52	\$73.39	\$68.74
2019	\$125.14	\$40.28	\$132.94	\$57.53	\$57.09	\$75.38	\$70.54
2020	\$128.27	\$41.58	\$136.85	\$59.02	\$58.81	\$77.40	\$72.40
2021	\$131.47	\$42.87	\$142.24	\$60.73	\$60.53	\$79.83	\$74.35
2022	\$134.76	\$44.17	\$147.84	\$62.49	\$62.27	\$82.35	\$76.36
2023	\$138.13	\$45.45	\$153.67	\$64.25	\$64.00	\$84.89	\$78.41
2024	\$141.58	\$46.85	\$159.72	\$66.13	\$65.87	\$87.58	\$80.59
<b>20 Year Levelized Prices (Nominal) @ 7.20%</b>					<b>\$50.03</b>	<b>\$59.56</b>	<b>\$63.63</b>

### Notes for Column A

- A1 Avoided Costs in the Appendix A of Stipulation as Approved by the Commission
- A2 Energy Price is fixed price option in Appendix A

### Notes for Column B

- B1 Capacity Price adjusted to reflect updated load & resource
- B2 Energy Price adjusted to reflect new gas price curve December 2004
- B3 Energy Price is fixed price option in Appendix A

### Notes for Column C

- C1 Capacity Price in the Appendix A of Stipulation as Approved by the Commission
- C2 Energy Price adjusted to reflect new gas price curve December 2004
- C3 Energy Price is Heat Rate / Gas Index Option in Appendix A