

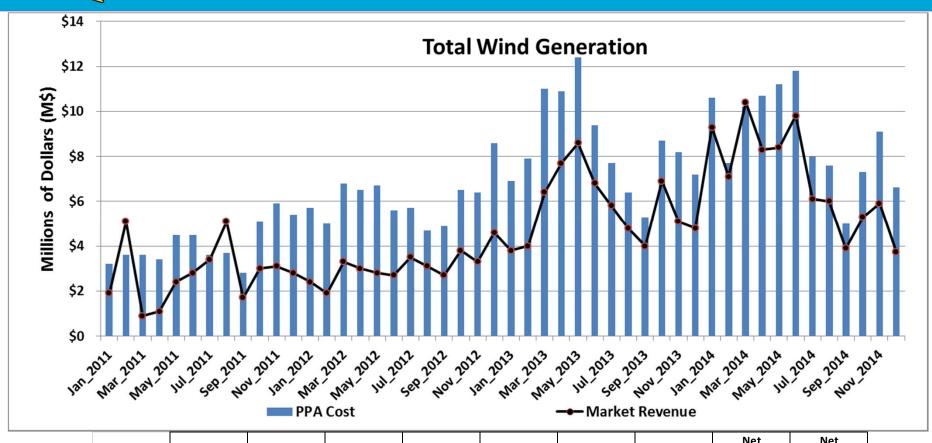
# Summary of EUC Requested Items

Request	Response
Provide Pre-2011 analysis	Cannot be provided. This type of analysis was made possible by the Nodal market which began in December 2010
Wind analysis in keeping with Gas / Solar	Historical perspective will be provided at May 2015 EUC meeting
o All Wind	Will include in above.
o Show results if all priced at latest contract pricing or 30 LCOE as per Task Force May 7,2014 data.	Not included. The AE portfolio was created over a 15+ year span and consists of multiple projects at multiple price / market points. Creating or replacing the same portfolio at current prices in a single instance isn't practical.
o West Wind	Will include in above.
o Break Out West-Texas and Panhandle Wind if Possible	Will provide to the extent practical. Until April 2015 AE only had one wind project (Whirlwind) located near the Panhandle region. The Jumbo Road Project located in Panhandle proper came on line at the end of April and therefore has very limited data.
o Coastal Wind	Will include in above.
o Scale each to 500 MW	Scaling would not be appropriate due to several aspects. As a prospective or forecast view this type of analysis was included in the 2014 Resource Plan update and will likely be included in the pending review by consultants. In addition, the diversity of the locations and performance of individual wind resources makes scaling problematic. Note that the AE historical will show a wind portfolio that varies between 350 and 850 MW for the period.
Solar	
o Remove Webberville historical results	These are actual results and should be included with any historical analysis. In the scaling analysis which compares it with recent pricing, it illustrates the large difference imparted by the decline in solar pricing since Webberville was contracted. This illustrates potential risk presented by future declines in solar pricing relative to large commitments at current price levels.
o Rework with Hi / Lo price ranges	This type of analysis was included in the 2014 Resource Plan update and will likely be included in the pending review by consultants.
o For solar back-cast use the same PPA pricing for EUC as used for Task Force (Confirm?)	Will be provided at May 2015 EUC meeting
o For solar back-cast use a West Texas settlement point - Pecos or other applicable	This is appropriate and the norm for forecasts using the Nodal model. As a prospective or forecast view this type of analysis was included in the 2014 Resource Plan update and will likely be included in the pending review by consultants. This approach allows for differences in historical and future pricing owing to the impact of large scale generation installations such as 500 MW.
o For solar back-cast, estimate difference between Webberville West Texas locations and use the higher West Texas production	Will be provided at May 2015 EUC meeting
Gas	
o Add back Risk Management	Risk Management costs or benefits should not be assigned to generators unless associated with managing the price risk of a sale from the generator. AE's risk management activity is driven primarily by its need to protect the purchase cost of energy for its customers and as such is usually a load expense. As a reference we have included the PSA breakout chart from last year's budget session which shows the hedging component.
Remove 2011 from all of the above – abnormal year	2011 reflects the history since the beginning of the Nodal Market and illustrates the potential for market volatility and large dollar impacts. The same or greater dollar impacts could occur today under less extreme temperature (demand) conditions owing to the increase in the market cap from \$3,000/Mwh in 2011 to \$9,000 today.





#### PPA Cost/Revenue for All Wind Units

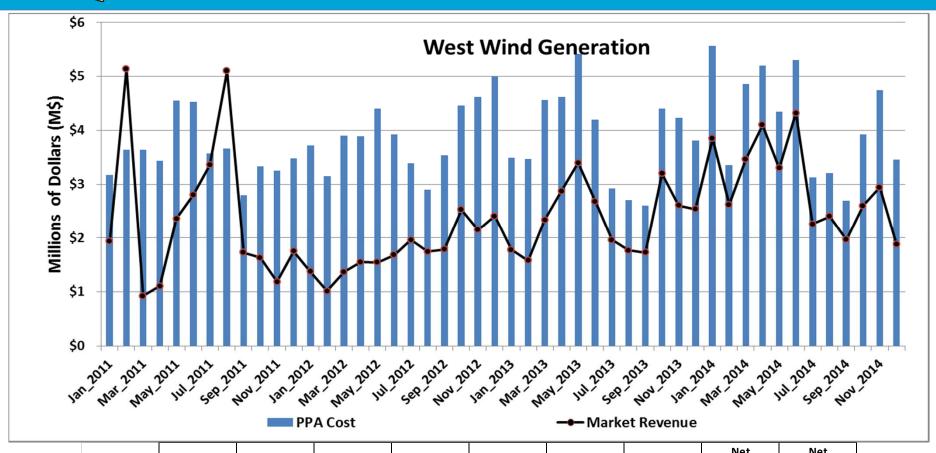


	Generation MWh	PPA Cost (\$Million)	Other Cost (\$Million)	Total Cost (\$Million)	Total Cost (\$/MWH)	Total Revenue (\$Million)	Total Revenue (\$/MWH)	Net Revenue/Cost (\$Million)	Net Revenue/Cost (\$/MWH)
CY 2011	1,294,451	\$49.3	\$0.0	\$49.3	\$38.1	\$33.3	\$25.7	(\$16.0)	(\$12.36)
CY 2012	1,845,660	\$73.1	\$0.0	\$73.1	\$39.6	\$37.1	\$20.1	(\$36.0)	(\$19.51)
CY 2013	2,477,246	\$102.0	\$0.0	\$102.0	\$41.2	\$68.7	\$27.7	(\$33.3)	(\$13.44)
CY 2014	2,567,654	\$105.8	\$0.0	\$105.8	\$41.2	\$84.2	\$32.8	(\$21.6)	(\$8.40)
Total	8,185,011	\$330.2	\$0.0	\$330.2	\$40.34	\$223.3	\$27.29	(\$106.9)	(\$13.1)





### PPA Cost/Revenue for West Wind Units

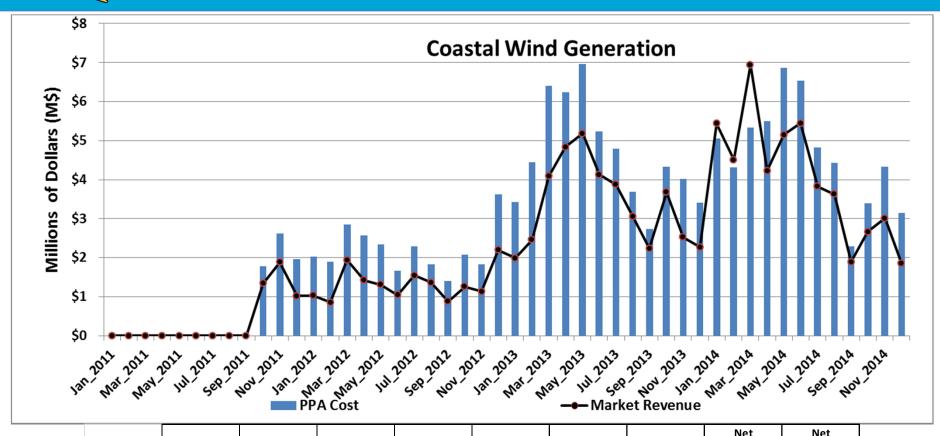


	Generation MWh	PPA Cost (\$Million)	Other Cost (\$Million)	Total Cost (\$Million)	Total Cost (\$/MWH)	Total Revenue (\$Million)	Total Revenue (\$/MWH)	Net Revenue/Cost (\$Million)	Net Revenue/Cost (\$/MWH)
CY 2011	1,145,250	\$43.0	\$0.0	\$43.0	\$37.6	\$29.0	\$25.3	(\$14.0)	(\$12.23)
CY 2012	1,205,838	\$46.9	\$0.0	\$46.9	\$38.9	\$21.1	\$17.5	(\$25.8)	(\$21.37)
CY 2013	1,111,311	\$46.4	\$0.0	\$46.4	\$41.8	\$28.4	\$25.6	(\$18.0)	(\$16.20)
CY 2014	1,190,729	\$49.8	\$0.0	\$49.8	\$41.8	\$35.7	\$30.0	(\$14.1)	(\$11.84)
Total	4,653,128	\$186.1	\$0.0	\$186.1	\$40.00	\$114.3	\$24.55	(\$71.9)	(\$15.4)





#### PPA Cost/Revenue for Coastal Wind Units

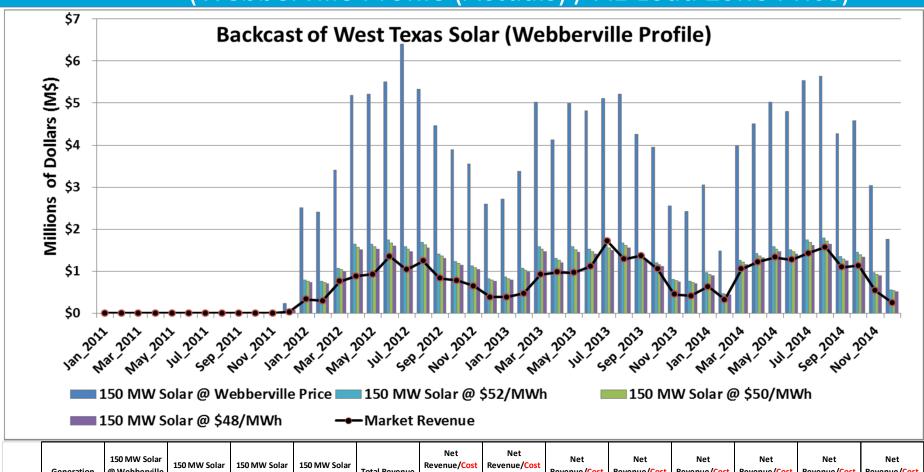


	Generation MWh	PPA Cost (\$Million)	Other Cost (\$Million)	Total Cost (\$Million)	Total Cost (\$/MWH)	Total Revenue (\$Million)	Total Revenue (\$/MWH)	Net Revenue/Cost (\$Million)	Net Revenue/Cost (\$/MWH)
CY 2011	149,202	\$6.4	\$0.0	\$6.4	\$42.6	\$4.2	\$28.4	(\$2.1)	(\$14.23)
CY 2012	639,822	\$26.4	\$0.0	\$26.4	\$41.3	\$15.9	\$24.9	(\$10.5)	(\$16.35)
CY 2013	1,365,936	\$55.7	\$0.0	\$55.7	\$40.7	\$40.3	\$29.5	(\$15.4)	(\$11.25)
CY 2014	1,376,925	\$56.0	\$0.0	\$56.0	\$40.7	\$48.6	\$35.3	(\$7.5)	(\$5.43)
Total	3,531,884	\$144.4	\$0.0	\$144.4	\$40.90	\$109.0	\$30.87	(\$35.4)	(\$10.0)





# Back cast of West Texas Solar (Webberville Profile (Actuals) / AE Load Zone Price)

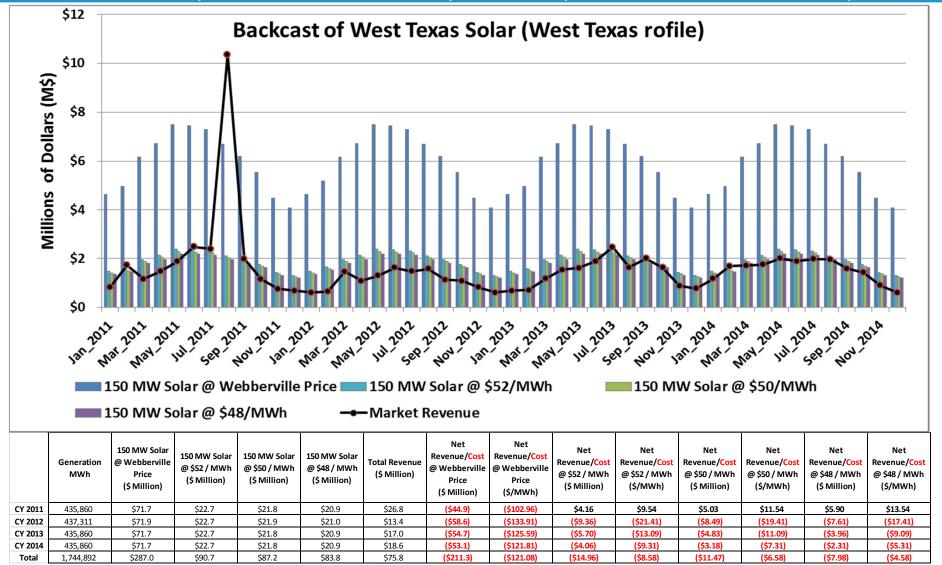


	Generation MWh	150 MW Solar @ Webberville Price (\$ Million)	150 MW Solar @ \$52 / MWh (\$ Million)	150 MW Solar @ \$50 / MWh (\$ Million)	150 MW Solar @ \$48 / MWh (\$ Million)	Total Revenue	Net Revenue/Cost @ Webberville Price (\$ Million)	Net Revenue/Cost @ Webberville Price (\$/MWh)	Net Revenue/Cost @ \$52 / MWh (\$ Million)	Net Revenue/Cost @ \$52 / MWh (\$/MWh)	Net Revenue/Cost @ \$50 / MWh (\$ Million)	Net Revenue/Cost @ \$50 / MWh (\$/MWh)	Net Revenue/Cost @ \$48 / MWh (\$ Million)	Net Revenue/Cost @ \$48 / MWh (\$/MWh)
CY 2011	1,416	\$0.2	\$0.1	\$0.1	\$0.1	\$0.0	(\$0.2)	(\$141.11)	(\$0.04)	(\$28.61)	(\$0.04)	(\$26.61)	(\$0.03)	(\$24.61)
CY 2012	298,515	\$50.5	\$15.5	\$14.9	\$14.3	\$9.5	(\$41.0)	(\$137.41)	(\$6.06)	(\$20.30)	(\$5.46)	(\$18.30)	(\$4.87)	(\$16.30)
CY 2013	295,552	\$48.6	\$15.4	\$14.8	\$14.2	\$11.1	(\$37.5)	(\$126.78)	(\$4.26)	(\$14.41)	(\$3.67)	(\$12.41)	(\$3.08)	(\$10.41)
CY 2014	289,797	\$47.7	\$15.1	\$14.5	\$13.9	\$11.8	(\$35.8)	(\$123.62)	(\$3.22)	(\$11.12)	(\$2.64)	(\$9.12)	(\$2.06)	(\$7.12)
Total	885,280	\$147.0	\$46.0	\$44.3	\$42.5	\$32.5	(\$114.5)	(\$129.35)	(\$13.58)	(\$15.34)	(\$11.81)	(\$13.34)	(\$10.04)	(\$11.34)





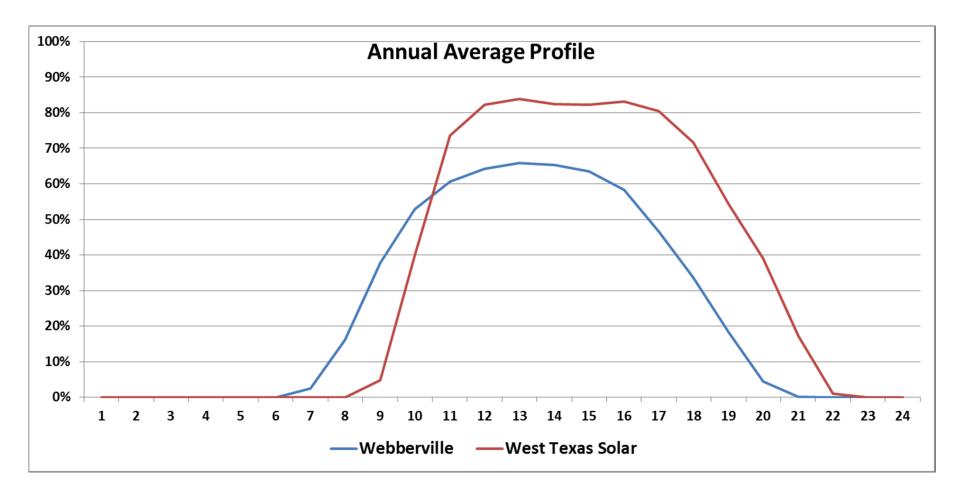
# Back cast of West Texas Solar (West Texas Profile (Forecast) / AE Load Zone Price)







## West Texas vs Webberville Solar Profile

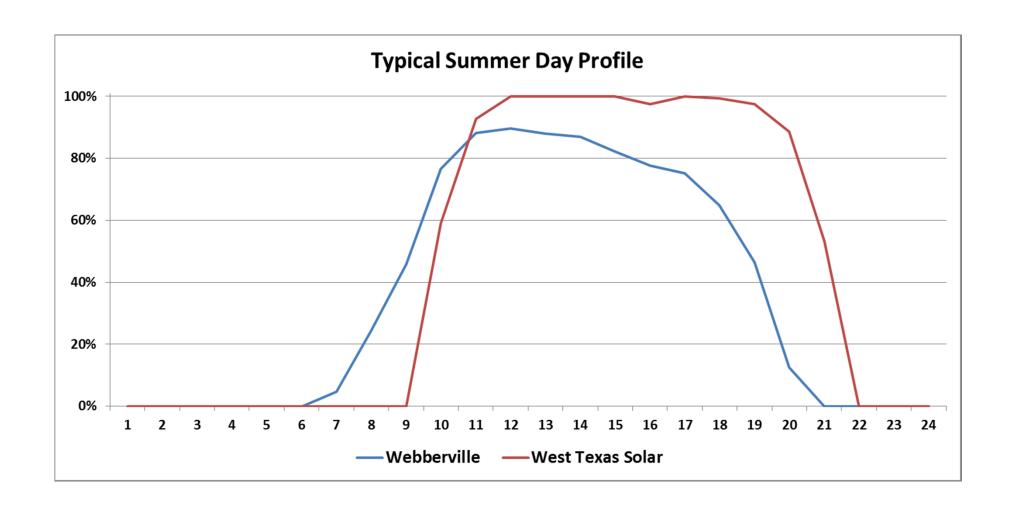


- Annual Capacity Factor:
  - ➤ Webberville 22%
  - West Texas Solar 33%



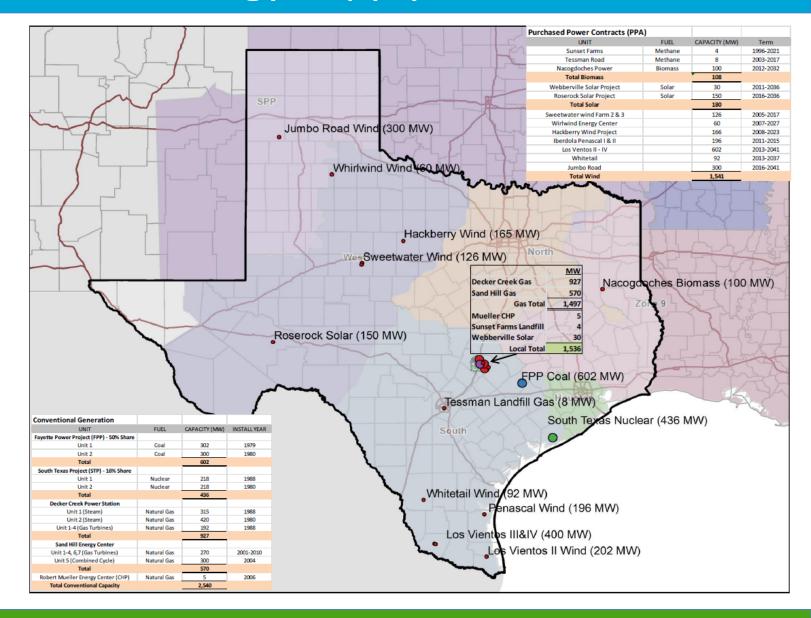


### West Texas vs Webberville Solar Profile





# **Energy Supply Portfolio**





### West vs. Panhandle Wind Historical Capacity Factors

- Austin Energy did not have any wind resources in the Panhandle proper until late April 2015 (Jumbo Road)
- Whirlwind wind farm serves as the best reference given its proximity to the Panhandle
- Sweetwater wind farm (SW 2 & 3) is representative of "West" wind farms

	Wind Farms								Month	1						
	closer to Panhandle area	Rating	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Capacity Factor
	SW2	92	24,883	29,761	34,852	33,678	33,094	32,352	18,276	20,500	16,600	29,949	31,769	27,436	333,149	42%
2011	SW3	35	5,532	7,785	9,052	9,781	9,953	8,464	4,612	5,590	4,776	7,743	8,556	7,978	89,823	30%
	Whirlwind	60	14,007	13,344	10,913	11,687	17,893	18,088	17,093	15,610	11,369	9,212	11,232	13,423	163,872	31%
	SW2	92	34,516	29,101	36,931	30,375	29,976	25,525	18,308	15,016	23,492	28,507	28,521	31,994	332,261	41%
2012	SW3	35	10,055	7,615	10,705	8,676	7,929	7,357	4,970	4,424	6,208	7,279	7,677	9,307	92,202	30%
	Whirlwind	60	10,203	6,318	9,031	10,716	16,994	16,016	16,665	12,020	12,828	18,888	18,492	21,902	170,072	32%
	SW2	92	23,772	24,790	35,508	37,167	38,693	28,460	17,932	19,032	16,961	31,425	29,256	24,285	327,280	41%
2013	SW3	35	7,038	7,889	9,437	10,235	10,184	7,356	4,314	4,584	4,404	8,215	7,959	6,954	88,570	29%
	Whirlwind	60	17,140	3,846	18,357	18,442	22,326	20,333	16,214	13,854	14,798	21,896	19,512	21,869	208,587	40%
	SW2	92	36,177	23,147	32,865	34,610	30,377	40,151	21,640	23,587	19,471	25,175	34,067	25,824	347,091	43%
2014	SW3	35	9,960	6,787	8,615	10,062	8,778	11,128	5,946	5,822	5,104	6,862	9,497	7,396	95,958	32%
	Whirlwind	60	25,527	15,560	24,510	23,992	18,901	22,144	14,413	16,161	14,956	19,032	21,420	16,779	233,394	45%





# **PSA Components - Hedging**

