

Read this side first.

Comments by Eugene Preston concerning Austin Energy Rates, January 12, 2012

Austin Energy needs to include the coincidence factor for churches, shown in the right hand column below as a modification of the General service rate for churches. Under the current rate design being proposed by Austin Energy, churches in the general service rate category will pay double what they should be paying for the demand charge.

Customer Class: Residential - Churches
Class Code: E01C
Number of Bills: 7,367
Annual Energy (kWh): 51,750,839
Annual Revenue: \$ 4,927,181
\$/Bill: \$ 668.82
Cents/kWh: 9.5
Average Monthly Energy Usage/Bill: 7,025 kWh
Average CP Demand/Customer: 14.0 kW
Average NCP Demand/Customer: 48.7 kW

Month	Energy (kWh)	Non-Coincident Peak		Coincident Peak		Coincidence Factor
		Demand (kW)	Load Factor	Demand (kW)	Load Factor	
Oct-08	4,558,514	23,259	0.268	9,894	0.831	0.425
Nov-08	3,106,918	19,403	0.219	7,516	0.566	0.387
Dec-08	3,174,759	13,528	0.321	6,019	0.722	0.445
Jan-09	3,429,693	14,212	0.331	5,881	0.799	0.414
Feb-09	2,641,425	13,296	0.272	5,605	0.646	0.422
Mar-09	2,838,442	15,479	0.251	4,763	0.816	0.308
Apr-09	3,365,291	19,726	0.234	8,786	0.525	0.445
May-09	4,384,800	23,260	0.258	5,618	1.069	0.242
Jun-09	5,370,417	27,082	0.272	8,565	0.859	0.316
Jul-09	7,430,304	29,916	0.340	17,888	0.569	0.598
Aug-09	6,350,042	27,627	0.315	15,264	0.570	0.552
Sep-09	5,100,234	24,385	0.287	9,088	0.769	0.373
2009	51,750,839	29,916	0.197	8,565	0.690	0.286

Customer Class: Secondary Voltage (< 10 kW)
Class Code: n/a
Number of Bills: 384,008
Annual Retail Energy Sales (kWh): 378,885,207
Annual Revenue: \$ 36,828,610
\$/Bill: \$ 95.91
Cents/kWh: 9.7
Average Monthly Energy Usage/Bill: 987 kWh
Average CP Demand/Customer: 2.6 kW
Average NCP Demand/Customer: 3.1 kW

Month	Energy (kWh)	Non-Coincident Peak		Coincident Peak		Coincidence Factor
		Demand (kW)	Load Factor	Demand (kW)	Load Factor	
Oct-08	33,820,173	98,318	0.468	98,318	0.468	1.000
Nov-08	31,078,225	90,081	0.473	87,690	0.485	0.973
Dec-08	35,606,102	96,152	0.507	72,850	0.670	0.758
Jan-09	35,464,574	81,139	0.599	66,242	0.733	0.816
Feb-09	30,123,815	86,481	0.477	84,974	0.486	0.983
Mar-09	33,148,468	83,010	0.547	75,865	0.599	0.914
Apr-09	32,225,215	98,017	0.450	95,765	0.461	0.977
May-09	33,021,673	92,837	0.487	92,837	0.487	1.000
Jun-09	33,244,018	88,325	0.516	84,940	0.536	0.962
Jul-09	32,786,787	79,754	0.563	75,896	0.592	0.952
Aug-09	34,370,118	86,633	0.543	82,121	0.573	0.948
Sep-09	34,351,945	99,100	0.475	99,100	0.475	1.000
TY 2009	399,041,111	99,100	0.460	82,121	0.555	0.829

Note that the general service rate assumes that customer peak demand coincides with the system peak, which is true for businesses. However, churches as a class are unique in that their non-coincident peak demand occurs on weekends. They should only be paying demand charges for their coincident peak demand during the weekdays.

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There has been much talk of getting out of Fayette Coal plant. Claims are that the cost of coal is higher than renewables. Below is a table of Austin Energy costs by fuel type and their contribution toward the total system annual energy of about 12660 GWh.

Source	GWh	% of sys energy	Fixed M\$/yr	Variable M\$/yr	Total M\$/yr	Energy cents/kWh
Nuclear	3500	28%	177	22	199	5.7
Coal	3750	30%	79	126	205	5.5
Gas	3524	27%	73	166	239	6.8
Wind	1135	9%			49	8.1*
Solar	134	1%			22	16.4
Purchase	617	5%			26	4.3

* The direct cost of wind energy is 4.3 c/kWh; however, there is an additional cost of CREZ transmission to support the wind that Austin is being billed for at 66 M\$ annually. Furthermore, because wind is given only an 8.7% capacity credit, if AE needs to add capacity to meet its peak demand, then additions of new wind will also require the capital cost of additional gas capacity, which is a hidden charge for new wind generation. This additional gas capacity also applies to solar, which currently does not have capacity credit. ERCOT will soon determine the capacity credit of solar in an LOLE study it is conducting. The LOLE study is due to be completed by March 1, 2012.

If Austin chooses to retire its coal capacity in Fayette plant, then Austin will be 600 MW deficient in capacity. ERCOT is also deficient in capacity, so any purchase by AE would be done at great financial risk to Austin at this time, probably causing big rate increases. Adding more wind and solar does not solve the capacity deficiency problem.

If you are thinking of adding more wood burning plants, consider that the wood burning plant is one of the drivers of rate increases starting with 8 c/kWh initially and increasing to 16 c/kWh over 25 years. The wood burning plant is causing large rate increases.

The cost of centralized solar is about 16 cents per kWh. The 30 MW solar plant provides 1% of Austin's energy and will be the cause of large rate increases if the solar program is expanded too rapidly. One way around this problem is to let individuals buy into off site solar which produces twice the energy per dollar invested as rooftop solar. This would avoid the large rate increases associated with solar.

The best solution to the climate change problem is to install gas generation for the short term and then plan on building more nuclear power in the long term. However, that long range nuclear program needs to be based on what is called fast neutron reactors, which burn up existing nuclear waste rather than use new nuclear fuel. These are called IFR reactors. STP currently has sufficient nuclear waste to build a large IFR power plant on site. However, it will take years to plan and build an IFR reactor. Its cents per kWh energy cost should be low compared with other non CO2 energy sources. We need to be working on initial planning on this source of power at this time, rather than wait.