



Peak Load and Energy Forecasts for PROMOD

Presented by Chris Hagman

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Peak Load and Energy

- Clearspring Energy Advisors
 - Developed weather-normalized demand values for the ATC footprint
 - 2007 weather-normalized peak load is 12,922 MW (2% higher than actual of 12,664 MW)
 - 2007 weather-norm. energy is 69,258 GWh (0.3% lower than actual of 69,459 GWh)
 - Growth rates from ATC's Futures Matrix are applied to these weather-normalized starting values

Demand Growth Rates

Drivers	Load Growth within ATC ²	Energy Growth within ATC	Load Growth outside ATC	Energy Growth outside ATC
2013 Futures Descriptions				
Robust Economy	3.0%	3.0%	3.0%	3.0%
High Retirements	1.5%	1.5%	1.5%	1.5%
High Environmental	1.2% ¹	1.2% ¹	1.2% ¹	1.2% ¹
Slow Growth	0.5%	0.5%	0.5%	0.5%
DOE 20% Wind	2.0%	2.0%	2.0%	2.0%
Fuel & Inv. Limitations	1.3%	1.3%	1.3%	1.3%
2018 Futures Descriptions				
Robust Economy	3.0%	3.0%	3.0%	3.0%
High Retirements	1.5%	1.5%	1.5%	1.5%
High Environmental	1.0% ¹	0.8% ¹	1.1% ¹	1.1% ¹
Slow Growth	0.5%	0.5%	0.5%	0.5%
DOE 20% Wind	2.0%	2.0%	2.0%	2.0%
Fuel & Inv. Limitations	1.3%	1.3%	1.3%	1.3%
2024 Futures Descriptions				
Robust Economy	3.0%	3.0%	3.0%	3.0%
High Retirements	1.5%	1.5%	1.5%	1.5%
High Environmental	1.0% ¹	0.8% ¹	1.1% ¹	1.1% ¹
Slow Growth	0.5%	0.5%	0.5%	0.5%
DOE 20% Wind	2.0%	2.0%	2.0%	2.0%
Fuel & Inv. Limitations	1.3%	1.3%	1.3%	1.3%

¹ A lower load growth percentage was selected for the High Environmental future due to increased Demand Side Management and Energy Efficiency, not because of low economic growth. Conservation programs are assumed to impact the rate of energy growth inside ATC somewhat more than the peak demand growth in 2018 and 2024.

² 2008 customer-supplied aggregated forecast has a 1.75% growth rate. To be conservative, 4 of 6 ATC futures have lower growth rates.

Peak Load & Energy Growth

Slow Growth Example-Projected ATC Peak Load and Energy

Future	Annual Growth Rate	Year	2007	2008	2009	2010	2011	2012	2013	2014	...	2024
Slow Growth	0.5%	ATC Peak Load (MW)	12,922	12,987	13,052	13,117	13,182	13,248	13,315	13,381	...	14,065
Slow Growth	0.5%	ATC Energy (GWh)	69,258	69,604	69,952	70,302	70,654	71,007	71,362	71,719	...	75,387



Allocation to PROMOD Areas

- PROMOD Areas
 - MGE, WEC, WPL, WPPI & WPS
 - Weather-normalized ATC peak load and energy allocated to each PROMOD area based on 2007 customer-supplied substation-by-substation forecasts

PROMOD Area Forecasts

Slow Growth Example-Projected WUMS Area-by-Area Peak Load and Energy For Use in PROMOD

														Allocation % in ATC			
	Future	Annual Growth Rate	Year	2007	2008	2009	2010	2011	2012	2013	2014	...	2024	2008	...	2013	
Peak Load	Slow Growth	---	MGE	---	733	735	737	739	741	743	749	...	760	5.6%	...	5.6%	
	Slow Growth	---	WEC+UPPC	---	6,133	6,143	6,153	6,163	6,172	6,182	6,193	...	6,622	47.2%	...	46.4%	
	Slow Growth	---	WPL	---	2,607	2,651	2,695	2,740	2,785	2,831	2,862	...	3,108	20.1%	...	21.3%	
	Slow Growth	---	WPPI	---	851	860	869	878	887	897	905	...	929	6.6%	...	6.7%	
	Slow Growth	---	WPS	---	2,663	2,663	2,663	2,663	2,663	2,663	2,672	...	2,647	20.5%	...	20.0%	
	Slow Growth	0.5%	ATC Load (MW)		12,922	12,987	13,052	13,117	13,182	13,248	13,315	13,381	...	14,065	100%	...	100%
	Slow Growth	0.5%	Marquette			65.1	65.4	65.8	66.1	66.4	66.7	67.1	...	70.5			
	Slow Growth	---	WEC+UPPC+Marquette			6,198	6,209	6,219	6,229	6,239	6,248	6,260	...	6,692			
	Slow Growth	---	WUMS Load (MW)			13,052	13,117	13,183	13,248	13,315	13,381	13,448	...	14,136			
Energy	Slow Growth	---	MGE	---	3,927	3,938	3,949	3,960	3,970	3,981	4,017	...	4,075	5.6%	...	5.6%	
	Slow Growth	---	WEC+UPPC	---	32,873	32,925	32,977	33,029	33,081	33,132	33,191	...	35,492	47.2%	...	46.4%	
	Slow Growth	---	WPL	---	13,973	14,209	14,446	14,686	14,927	15,171	15,338	...	16,656	20.1%	...	21.3%	
	Slow Growth	---	WPPI	---	4,560	4,608	4,658	4,707	4,757	4,807	4,852	...	4,977	6.6%	...	6.7%	
	Slow Growth	---	WPS	---	14,271	14,272	14,272	14,272	14,272	14,271	14,320	...	14,187	20.5%	...	20.0%	
	Slow Growth	0.5%	ATC Energy (GWh)		69,258	69,604	69,952	70,302	70,654	71,007	71,362	71,719	...	75,387	100%	...	100%
	Slow Growth	0.5%	Marquette			352.4	354.1	355.9	357.7	359.5	361.3	363.1	...	381.7			
	Slow Growth	---	WEC+UPPC+Marquette			33,226	33,280	33,333	33,387	33,440	33,493	33,554	...	35,873			
	Slow Growth	---	WUMS Energy (GWh)			69,957	70,307	70,658	71,011	71,366	71,723	72,082	...	75,768			



Questions?

