Michigan Electric Sales Forecast

Prepared by the Michigan Public Service Commission Staff -- July 19, 1999

Executive Secretary Division | Statistical Analysis Section

Introduction

This is a composite forecast of Michigan total electric sales. It provides sales projections for the period 1999 to 2003 and is based on forecasts prepared by Consumers Energy and Detroit Edison.

The purpose of this forecast is to provide information for use in policy development and analysis of electric industry issues. Electricity sales projections are used to assure a reliable supply of power and determine utility revenue requirements. Sales forecasts are also important inputs in efforts to modify customer demand, implement aspects of electric restructuring, and to identify new market opportunities in a restructured electric utility industry.

This projection provides information on the expected direction of future sales and the size of Michigan's electricity markets. The Consumers Energy, Detroit Edison, and Upper and Lower Peninsula splits show the relative size of these markets.

Historical Sales

Michigan total electric sales include sales by investor-owned electric utilities, cooperative electric utilities and municipal electric utilities. Investor-owned electric utilities are privately owned and have exclusive franchises to sell electricity in specific areas under state regulation. Cooperative electric utilities are also state regulated and were established to provide electricity to its members, who also own the company. These cooperatives were established in more sparsely populated rural areas which historically were viewed as areas uneconomical for investor-owned utilities to serve. Municipal electric utilities are publicly-owned electric utilities operated as nonprofit local government agencies and provide electric service to their communities and adjacent areas.

There are 62 electric utilities in Michigan. Forty-one are in the Lower Peninsula and 21 are in the Upper Peninsula. Consumers Energy and Detroit Edison account for 82 percent of total Michigan electric sales in 1998. Upper Peninsula utilities account for about 6 percent, and the balance of Lower Peninsula utilities comprise about 12 percent.

The effects of electric industry restructuring have the potential to significantly impact the amount of electricity sold directly by Michigan's 62 utilities. However, the factors which influence total electricity consumption and peak demands are driven for the most part by demographics, the level of economic activity and weather conditions. Therefore, this sales forecast reflects the level of expected sales in Michigan with or without restructuring, but does not reflect the market shares of utilities under a restructured market.

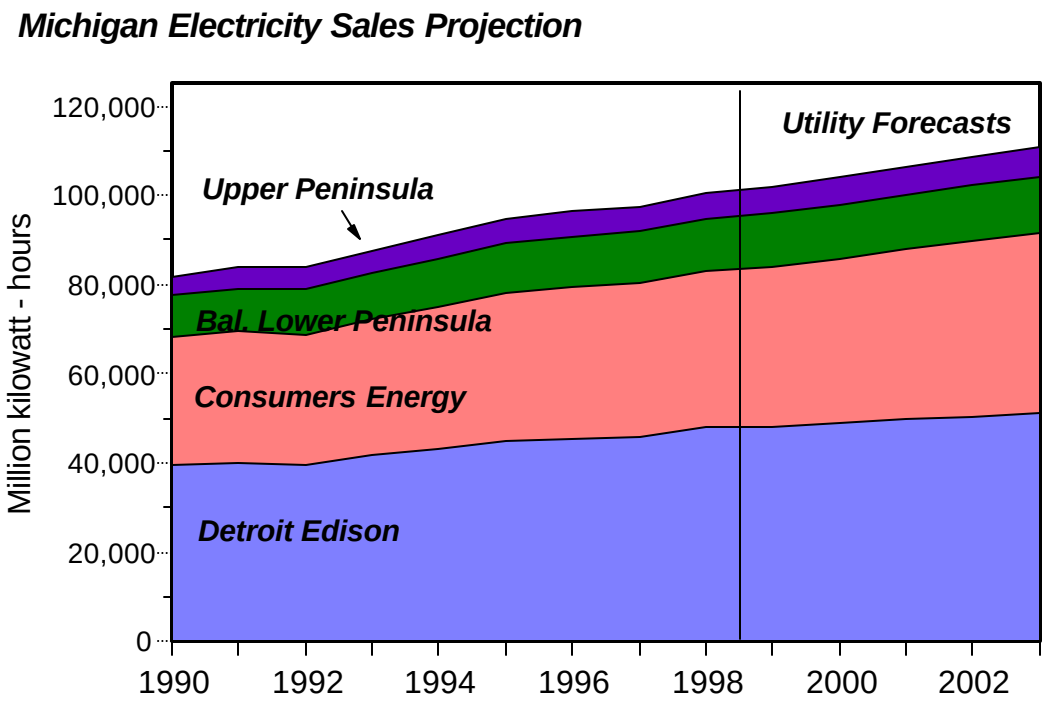
Forecasted Sales

Statewide electric sales are projected to grow at an average rate of 2.0 percent per year for the period 1998-2003. Sales are expected to grow from 100,338 GWh[1] in 1998 to 110,643 GWh in 2003, an increase of 10,305 GWh. This is less than the average sales growth of 2.6 percent per year from 1990 to 1998. Consumers Energy projects its sales growth will average 2.8 percent and Detroit Edison projects an average rate of 1.3 percent, together yielding a 2.0 percent growth which is used for the statewide projection.

Sales in the projection period show growth which is reflective of a long-term trend and not a business cycle expansion or recession. As the growth rates in the accompanying table show, annual sales growth averaged 4.2 percent in the 1993-1995 period, when the economy was expanding rapidly, and in the last three years growth has averaged 1.9 percent per year. Economic growth without any recession is expected to continue nationally and in Michigan in both the Edison and Consumers sales projections, but at lower rates than the mid-1990s. The company projections typically do not include recession impacts unless a recession is foreseen in the immediate future.

The electricity price in Michigan averaged 7.1 cents per kWh in 1998. Electric utility revenues were about $7.1 billion in 1998, about 2.8 percent of Michigan's total personal income of $257 billion. If electric prices remain constant at 7.1 cents per kWh, total Michigan electric revenues would increase by $737 million to $7.9 billion from 1998 to 2003 under this sales projection.

The Consumers Energy and Detroit Edison economic projections show continued growth in Michigan's economy, in line with the relative good economic performance seen in the 1990s. The companies' projections are generally consistent with the Commission Staff projections. The combined Consumers Energy and Detroit Edison residential customer growth averages 35,000 customers per year in the 1998-2003 period, slightly higher than in the 1990-1998 period. These two utilities and the Commission Staff project increasing industrial production, but also show very slow growth in the auto industry.



Although this projection does not show sales growth by major economic sector, it is noteworthy that both Consumers Energy and Detroit Edison project the highest sales growth in the manufacturing sector, at 2.8 and 2.4 percent annually respectively. Sales growth is second highest for commercial sales, and the residential sector shows the lowest sales growth. The projected sector trends are in line with the 1990s experience and are distinctly different from the 1970s and 1980s experience. Michigan's manufacturing sector suffered greatly in the 1970s and early 1980s, as did electricity sales to manufacturing customers. Combined Consumers and Edison sales to manufacturing were 25,675 GWh in 1977 and did not reach that level again until 1993. But, in the 1990s Michigan manufacturing has recovered and electricity sales to manufacturing customers has outpaced the sales growth to the commercial and residential sectors.

Projection Methods

Historical Michigan electric sales data for 1990 to 1998 were compiled from publications from the Energy Information Administration, the U.S. Department of Energy,[2] Annual Reports of Major and Nonmajor Electric Utilities,[3] Annual Reports of Major Electric Utilities, Licensees, and Others,[4] and Financial and Statistical Reports.[5]

The investor-owned electric utility forecast data are principally from five-year plans submitted in the PSCR cases. Consumers Energy's forecast is from Electric Forecast 1999-2008, prepared by the Electric Strategic Business Unit Planning Department,[6] and Detroit Edison's forecast, 1999 Sales and Economics Forecast Report, prepared by Power Generation's Mergers and Acquisitions.[7]

The forecasts for Consumers Energy and Detroit Edison for 1999 to 2003 period are the company projections. The projection for the balance of the Lower Peninsula and for the Upper Peninsula assumes a constant sales share, based on the 1994-1996 average, and sales are assumed to grow at the same rate as the combined Consumers and Edison projection. The 1994-1996 sales share for the Upper Peninsula is 5.8 percent, and 11.8 percent for the balance of Lower Peninsula electric utilities. The projected Consumers Energy and Detroit Edison combined share is 82.5 percent.

Michigan Statewide Electric Sales Forecast

			Annual Sales (GWh)			Sales	Percent
Year	Consumers	Detroit Edison	Bal Lwr Penn.	Upr Penn.	Total Sales	Change	Change
1990	28,668	39,674	9,145	4,183	81,670		
1991	29,593	40,135	9,258	4,838	83,824	2,154	2.6%
1992	29,428	39,377	9,983	5,052	83,840	16	0.0%
1993	30,729	41,716	10,263	4,880	87,588	3,748	4.5%
1994	31,932	43,211	10,735	5,281	91,159	3,571	4.1%
1995	33,266	44,926	11,119	5,390	94,701	3,542	3.9%
1996	34,015	45,328	11,392	5,566	96,301	1,600	1.7%
1997	34,451	45,822	11,540	5,578	97,391	1,090	1.1%
1998	35,061	47,905	11,651	5,721	100,338	2,947	3.0%
			Forecast				
1999	36,136	47,995	11,906	5,846	101,883	1,545	1.5%
2000	36,918	48,850	12,161	5,971	103,900	2,017	2.0%
2001	38,107	49,643	12,416	6,096	106,262	2,362	2.3%
2002	39,095	50,474	12,671	6,221	108,461	2,199	2.1%
2003	40,169	51,204	12,924	6,346	110,643	2,182	2.0%
Compound Annual Growth Rate:							
1990 -1998	2.5%	2.4%	3.1%	4.0%	2.6%		
1998 -2003	2.8%	1.3%	2.1%	2.1%	2.0%		

1. GWh is a Gigawatt-hours which is equal to a million kilowatt-hours or a billion watt-hours.

2. Electric Sales and Revenue, 1990-1997, Energy Information Administration, U.S. Department of Energy, DOE/EIA-0540 (90), (91), (92), (93), (94), (95), (96), (97).

3. Annual Report of Major and Nonmajor Electric Utilities, MPSC Form P-521 (1-95), Page 304.

4. Annual Report of Major Electric Utilities, Licensees, and Others, FERC Form No. 1(Ed 12-92), Page 304.

5. Financial and Statistical Reports, RUS Form 7 (Rev. 6-94), Page 7.

6. Consumers Energy Company, Electric Forecast, 1999-2008, Electric Strategic Business Unit, Planning Department, November 1998. Total sales exclude wholesale for resale, since these sales represent consumption outside a utility's service territory.

7. Detroit Edison, 1999 Sales and Economics Forecast Report, Power Generation's Mergers and Acquisitions, April 1999. Total sales exclude wholesale for resale, since these sales represent consumption outside a utility's service territory.