Consumers Energy

Count on Us

Balanced Energy Initiative

May 2007

Consumers Energy Company

BALANCED ENERGY INITIATIVE
Executive Summary - Contents

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Executive Summary

Introduction

Consumers Energy Company ("Consumers Energy" or the "Company"), the primary subsidiary of CMS Energy, is Michigan's second largest utility and provides electric and natural gas service to a mix of residential, commercial, and diversified industrial customers in Michigan's Lower Peninsula. Consumers Energy works hard to keep its rates competitive, ensure high levels of customer satisfaction, and provide reliable utility service to its customers, which include 6.5 million of Michigan's 10 million residents.

Consumers Energy's natural gas rates are among the very lowest in the nation, and its electric rates are below the national average. The Company has also been recognized through multiple awards for superior service in the Midwest region, including three J.D. Power awards over the past five years.

Over the past year, CMS Energy and Consumers Energy have announced the sale of a number of utility and non-utility assets along with a plan to increase investment in Consumers Energy in Michigan. These asset sales have reduced operating and financial risks, reduced complexity, and have provided a solid foundation for investing in the Company's utility system in order to meet performance commitments to customers, comply with increasing environmental performance standards, and maintain adequate energy supply and capacity. These planned investments include projects to improve gas and electric distribution reliability, technology to improve customer service and actively manage electricity demand, and critically needed new power plants in Michigan.

Based on the Company's commitment to reliable electric service and the long-term investments and strategies needed to address growing electric demand in Michigan, Consumers Energy has developed the Balanced Energy Initiative. The Balanced Energy Initiative ("BEI" or "Initiative") is a long-term (20-year) comprehensive energy resource plan to meet the Company's projected electric power requirements. The BEI is based on detailed computer modeling techniques and risk analysis, and includes energy efficiency and demand management programs, an expanded renewables program, the utilization of existing generation resources, and the development of new in-state electric power generating plants.

The Initiative is responsive to the recommendations of the 21st Century Electric Energy Plan ("21CEP") issued by the Chairman of the Michigan Public Service Commission ("MPSC" or "Commission") on January 31, 2007, and addresses both short- and long-term resource needs, as well as associated policy issues. The Company applauds the development of the 21CEP as providing a strong foundation for comprehensive energy policy legislation, regulatory action and energy resource planning to address Michigan's

electric supply shortfall, protect customers, meet environmental objectives, and ensure that utilities can economically serve customers.

Proposal Summary

The Balanced Energy Initiative represents a strategy that is designed to meet the objectives of balancing cost, risk and reliability for customers in light of the significant uncertainties that exist in the energy industry. Consistent with the integrated resource planning and certification process proposed by the 21CEP, the Initiative reflects the Company's best thinking on how to meet customer energy needs over the next two decades in a balanced way.

In summary, the BEI includes the following resource proposals and assumptions under the Company's preferred plan ("Plan A"):

- Assumption that the Company's existing renewable energy resources and Green Generation renewable energy program can be supplemented to achieve the equivalent of a 10% renewable portfolio standard, consistent with the recommendation of the 21CEP;
- Assumption that if a comprehensive energy efficiency and demand management program is adopted, energy efficiency savings associated with the 21CEP low penetration case could be achieved;
- Implementation of a central air conditioning direct demand control program for residential and small commercial customers with expected demand and energy reductions similar to the 21CEP modeling;
- Continued utilization of interruptible demand and Peak Load Management programs to reduce peak load requirements;
- Continued reliance on an increment of short- and intermediate-term capacity and energy purchases over the 2007-2015 period;
- Addition of approximately 500 MW of gas-fired combined cycle capacity by 2011. This addition could be in the form of the construction of a new facility at the Company's Thetford site or in the form of a purchase of an existing facility;
- Construction of a new 750 MW clean coal generating facility[1] on an existing Consumers Energy site to begin operation in 2015. Ownership of approximately 250 MW of the total capacity is assumed to be allocated to municipal entities or other interested parties, resulting in approximately 500 MW dedicated to the Company's use;
- Preservation of an option to construct a second coal unit to take advantage of the economies associated with building two facilities and to accommodate the interests of other parties in sharing additional new capacity; and
- Continue to evaluate the economic trade-off between short-term capacity and energy purchases versus the installation of new combustion turbines or other technologies as future demand patterns become apparent. The BEI does not recommend any specific combustion turbine construction at this time.

[1] Clean coal refers to a high efficiency pulverized coal combustion facility that is equipped with state-of-the-art emission control technology.

As acknowledged in the 21CEP, implementation of the preferred plan will require repeal or significant reform of the customer choice law ("PA 141") to allow for the development of new generating plants. In conjunction with changes to PA 141, Consumers Energy endorses the 21CEP recommendation to adopt a new, up-front certification policy for major baseload power plant investments. The policy would provide for MPSC oversight with stakeholder input, over project design features, construction plans, and costs. To ensure that costs are managed properly, the Company anticipates that an element of the review of any new construction would require that competitive bidding be used for the engineering, procurement, and construction of the plant.

If the legislative, policy and regulatory changes to support the preferred plan are not implemented, the BEI also includes the following resource proposals and assumptions under an alternative and potentially higher cost plan ("Plan B"):

- Continued reliance on short- and intermediate-term capacity and energy purchases;
- Continue the Company's current Green Generation renewable energy program under current funding assumptions; and
- Implementation of a central air conditioning direct demand control program for residential and small commercial customers with expected demand and energy reductions similar to the 21CEP modeling.

Due to the continuing uncertainties inherent in the "hybrid" market structure and customer choice program created by 2000 PA 141, the alternative plan includes no long-term supply and/or construction commitments. In addition, Plan B would forego the critical economic benefits to Michigan, including the creation of a large number of construction and operating jobs and significant incremental tax revenues to state and local governments, associated with Plan A.

Customer Choice and Reliability Act (Michigan 2000 PA 141)

The Capacity Need Forum Report ("CNF") and the 21CEP identified an urgent need to develop additional resources to assure that adequate energy supply exists in Michigan. Both reports also discussed the extent to which PA 141 is an impediment to making the needed investments.

Under the pre-PA 141, traditional approach to utility investments, the utility would assume responsibility for assuring adequate resources, make the necessary investments, and seek cost recovery approval from the MPSC on an after-the-fact basis. PA 141 has complicated utility planning efforts.

PA 141 introduced retail customer choice to the electric supply industry in Michigan. Allowing retail customers the right to buy generation service from suppliers other than the local utility was intended to create competition among existing electric utilities and new "alternative electric suppliers" ("AESs"), thus resulting in lower prices. Contrary to the common description of PA 141, however, it did not "deregulate" the market for

generation services. To the contrary, local distribution companies[2] remained fully regulated, and retained the responsibility to provide generation service for all customers desiring it within the utility's franchised service areas. Thus, PA 141 created a "hybrid" market for generation services, with unregulated AESs offering to sell generation service to customers of their choosing at prices set by the AESs, while existing utilities remain obligated to sell generation service at fully regulated prices to all customers who request the service.

While this hybrid structure has thus far not produced the huge price increases experienced in states that transitioned to fully deregulated generation markets, it arguably made inevitable a similar result. That is because the market structure put in place by PA 141 fails to create the incentives necessary to assure the development of new generation resources. Lacking an ability to accurately predict how many customers will choose an AES as their generation supplier, electric utilities and their lenders are wary of making the enormous investments needed to construct new generating plants. In circumstances where the utility's prices are fully regulated, the loss of customers to AESs will leave the utility with unrecovered costs. While PA 141 stated that utilities were to be permitted to recover these "stranded costs", the significant controversy and litigation surrounding those statutory provisions since the passage of PA 141 have demonstrated that reliance upon stranded cost recovery is an uncertain proposition, at best. The uncertainty of customer demand, coupled with the continuation of fully regulated prices, leaves utilities extremely reluctant to make large investments in new generating capacity.

While unregulated merchant plant developers are free to step in and construct needed generating capacity, there has been little indication thus far that they will do so. According to the 21CEP, "In fact, since enactment of PA 141, no unregulated merchant plant developer has built a baseload power plant in Michigan."[3] Indeed, the fact that utilities remain fully regulated arguably makes it less likely that investors will proceed with merchant plant development. Under these circumstances, merchant developers are unable to predict what pricing structures will be approved for the utilities, including whether stranded cost recovery will be approved. The resulting uncertainty makes it difficult to predict what prices the merchant developer would be competing against, and thus makes proceeding with merchant plant investments an equally risky proposition.

Over time, the combination of increasing demand, the potential retirements of existing generating units, and lack of new construction is a recipe for less reliable service and higher and more volatile prices. The 21CEP recognizes that construction of new generating resources is necessary, that it is urgent to begin action on new generation resources soon, and that PA 141 has created an unstable market that requires reform. The Company believes that there are three basic options available to address the concerns about PA 141: (1) proceed with full deregulation of the electric generation business, (2) retain PA 141, but amend the statute to address fairness issues and reduce investment uncertainty, and (3) repeal of PA 141, and a return to more traditional regulation of electric generation.

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[2] A local distribution company is a company that has a franchise to service retail customers.

[3] 21CEP Executive Summary, Jan 2007, http://www.dleg.State.mi.us/mpsc;electric;capacity/energyplan, See p. 16.

Fully deregulating electric generation is a model that several states have adopted. These models have typically included a transition period during which utility rates were frozen, and competitive suppliers of generation services were provided with the opportunity to offer unregulated service. At the end of the transition period, all prices were usually subject to some form of market pricing. The result in most of these states has been large price increases. In some cases, the resulting public outcry has caused policy makers to suspend or repeal the laws that put in place the deregulated model.

The second option is one that is proposed by the 21CEP. In summary, this approach would make it more difficult for customers to switch between regulated and unregulated suppliers and would require customers that opt for unregulated supply to bear some of the costs associated with the cost of generation plants built on their behalf by utilities. While these reforms recognize real problems, Consumers Energy does not believe they are adequate. They leave in place a structure that still makes it nearly impossible to predict future customer demand. They leave in place policies that eliminate any possibility of meaningful competition, such as skewed rates for utilities. Leaving the hybrid model created by PA 141 in place requires that numerous actions be taken to assure that real competition can occur on a level playing field. All policies that affect generating costs, including environmental standards, reliability and reserve requirements, taxes, renewable portfolio standards, etc, must be applied on an evenhanded basis to all regulated and unregulated suppliers alike if the hybrid model is retained.

While this second option is theoretically possible, Consumers Energy believes that addressing the issues necessary to allow the hybrid structure to remain in place will be at least as controversial as outright repeal of PA 141 and will be much more difficult and time consuming to design and implement. Indeed, the 21CEP also expressed doubt about the wisdom of preserving PA 141: "the preservation of an option that prohibits Michigan from securing a sound electric future, . . . , may be unwise."[4] In its public statements made to the legislature, Consumers Energy has therefore taken the position that repeal of PA 141 is the best course of action.

Electric Demand

The Company continues to experience increasing demand for electricity in its service territory due to economic growth, increased use of air conditioning, consumer electronics, and other electric devices. Customers set a new all-time peak demand record in August 2006 of 8,883 MW, including retail open access loads, which exceeded the previous record by 4.8%. The net bundled load of 8,657 MW, excluding retail open access loads, also exceeded the previous record by 4.4%.

The BEI projects a 2007 bundled peak load of 8,632 MW under normal weather assumptions, and an average annual growth rate over the entire 2007-2030 study period of about 1% per year. This is slightly lower than average annual peak demand growth rate projected in the 21CEP of about 1.2% per year and about half of Consumers' actual

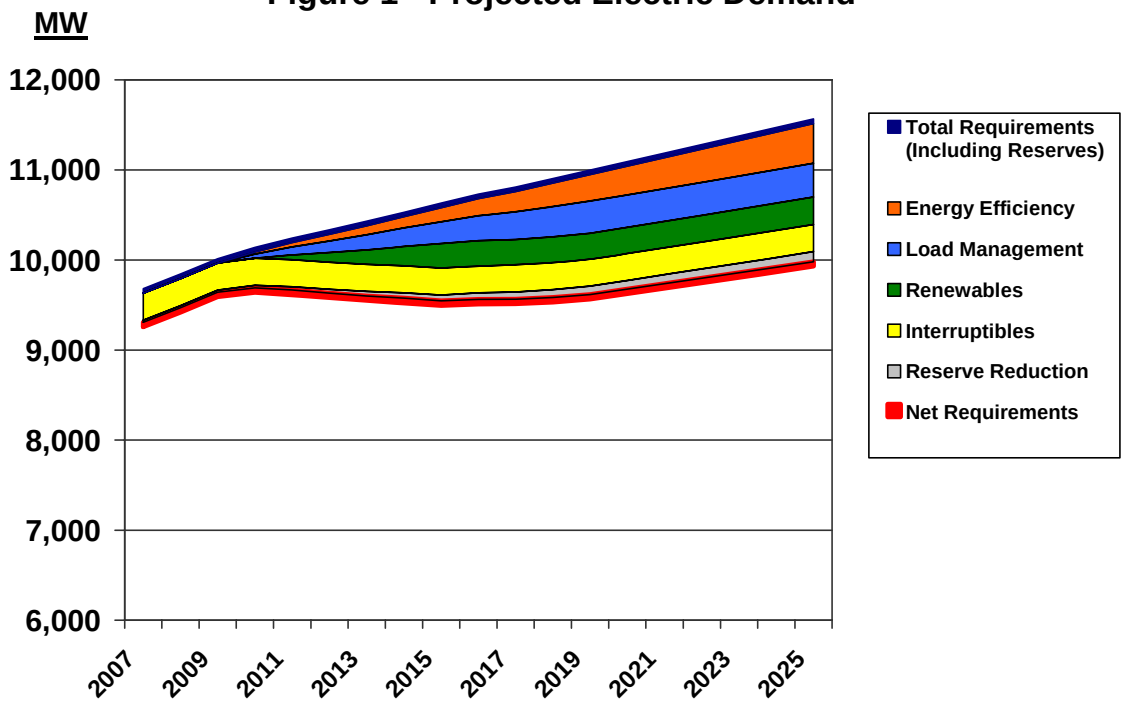
[4] 21CEP Executive Summary, Jan 2007, http://www.dleg.State.mi.us/mpsc;electric;capacity/energyplan, See p. 16.

load growth over the past decade. Figure 1 illustrates the total electric requirements trend utilized in the BEI modeling including an assumed 11% reserve margin[5].

Figure 1 also shows the various load reduction segments associated with the proposed energy efficiency savings, load management reductions, expanded renewables program[6], and interruptible reductions. These programs, which are specifically included in the BEI, significantly reduce the requirements by approximately 1,080 MW or about 10% by 2015 and by approximately 1,580 MW or about 14% by 2025[7].

The 21CEP takes a fairly aggressive view of Michigan's collective ability to reduce demand growth through energy efficiency programs and through a dramatically accelerated renewables program. As illustrated in Figure 1, the BEI incorporates these changes into the resource plan, although the assumptions about what can be achieved through energy efficiency efforts are slightly more conservative.

Figure 1 - Projected Electric Demand



Capacity Shortfall

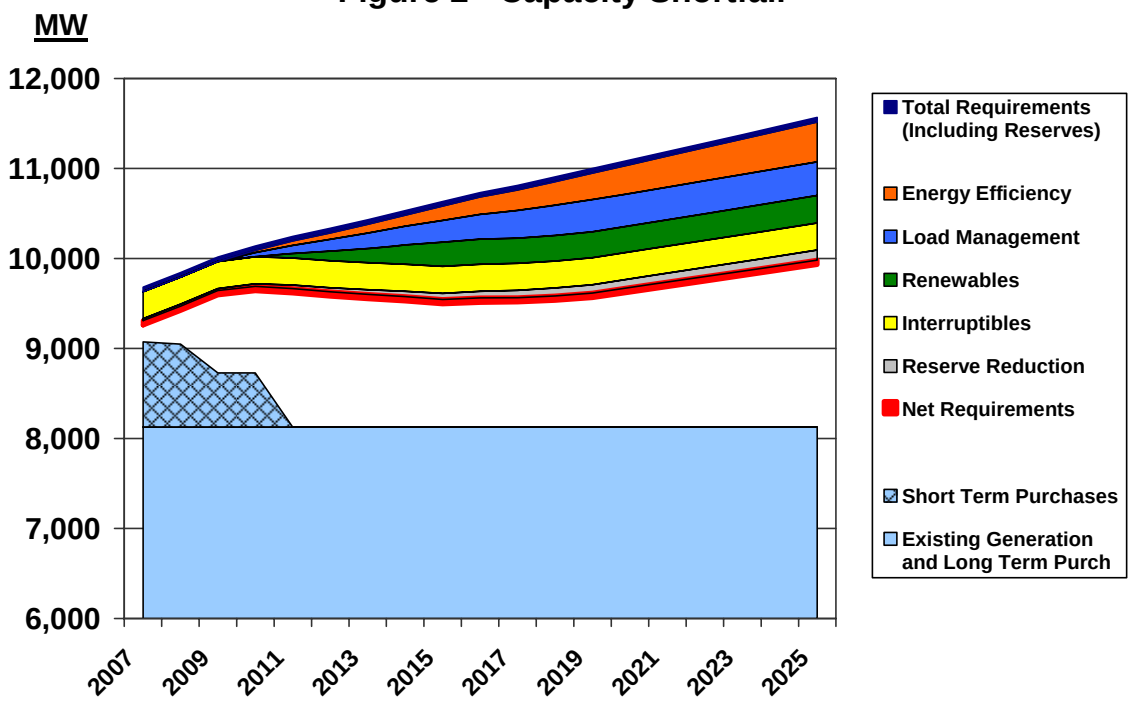
[5] The Company expects to be in compliance with Reliability*First* Corporation reliability standards. The Company is currently in a regional Planning Reserve Sharing Group that is in the process of developing specific planning reserve rules that may result in a standard that is different from 11%.

[6] Consumers Energy implemented a Green Generation program in 2005 that currently has over 7,300 electric customers and has supplied over 30 million kilowatt-hours of renewable energy to the electric grid. The program is funded in part through the MPSC approved Resource Conservation Plan.

[7] As illustrated by the gray segment in Figure 1, reserve requirements are also reduced by the various load reduction segments, resulting in the net requirements.

Consumers Energy currently has a little over 8,100 MW of power plant capacity and long-term contracts. In recent years, and as a result of the uncertainty associated with PA 141, the Company has become increasingly dependent on short-term purchases to meet customer demand, exposing customers to market volatility. The gap between the capacity projection and net demand represents the additional sources of electric power needed, assuming all of the Company's existing sources remain available. The gap rises to about 1,500 MW by 2011, declines to about 1,400 MW by 2015 due to increasing energy efficiency and renewables, and then continues to rise. The projected capacity shortfall is illustrated in Figure 2.

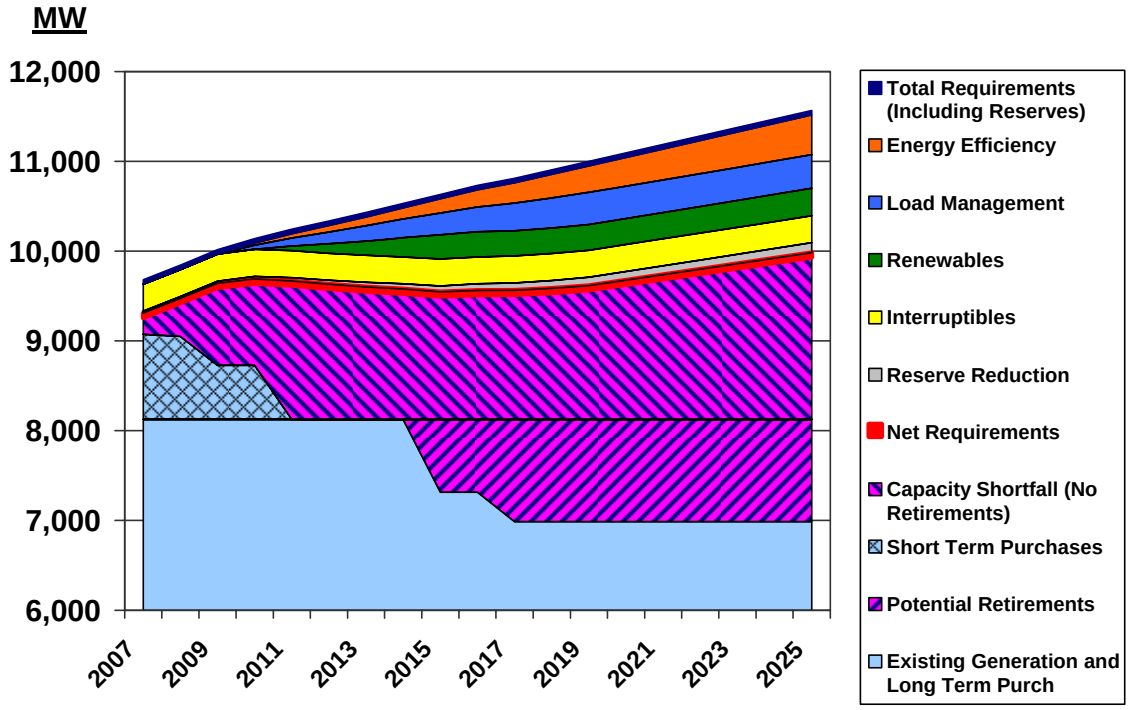
Figure 2 - Capacity Shortfall



An additional factor in Michigan's electric supply picture is the age of the state's power plants. Consumers Energy's electric generating fleet is the second oldest in the United States, averaging nearly 50 years of age. While the Company's older units have been well maintained and no specific plans have been made to retire any of the current fleet, increasingly stringent environmental regulations could render these plants uneconomic over the coming decade.

Given the growing gap between supply and demand, the risk of future plant retirements, and the long lead time necessary to build new power plants, it is critical that new plant development begin soon. Figure 3 illustrates the potential shortfall if retirement of the Company's oldest units were to occur.

Figure 3 - Potential Capacity Shortfall



Fuel Mix

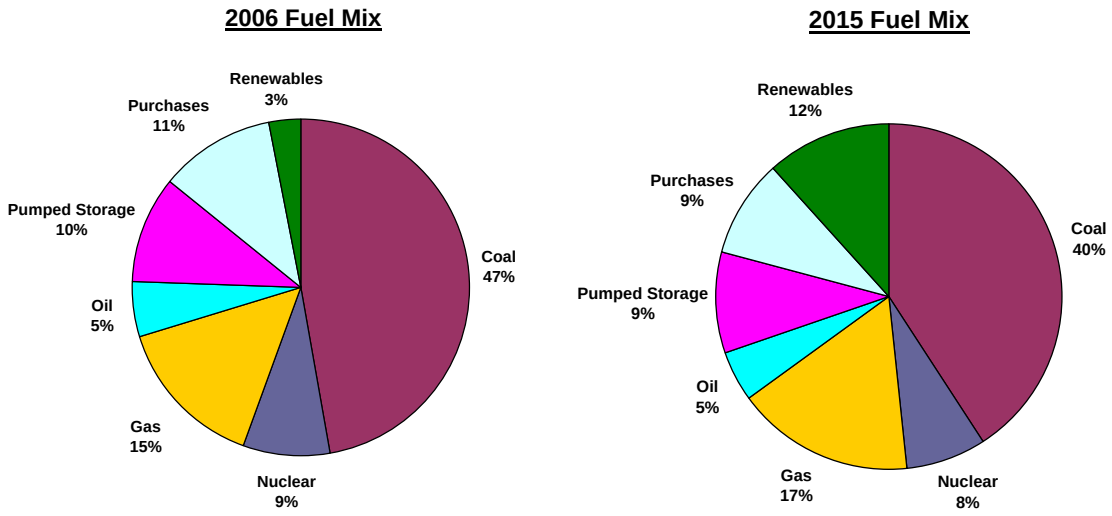
Preserving fuel diversity in power generation and balancing the risks associated with future fuel prices and price volatility are key principles of the Balanced Energy Initiative. To reduce risk and provide for continued flexibility, it is important that the additional generation required to fill the shortfall identified in the previous section be powered by a variety of fuels, including natural gas, coal and a range of renewable sources.

Figure 4 illustrates Consumers Energy's current fuel mix based on owned and contracted capacity. As the chart shows, coal currently represents almost half of the current fuel mix based on capacity and is a key contributor to lower overall fuel costs and reduced price volatility for customers[8]. However, gas, oil and nuclear are also important contributors to the diversity of the portfolio. Figure 4 also shows the projected capacity

[8] As discussed in the next section, capacity and energy from MCV and other non-utility generators with which the Company has long-term power purchase agreements is priced on the basis of coal. The capacity associated with these contracts is therefore included in the coal segments of Figure 4.

fuel mix as of 2015 under the BEI proposal, including new gas, coal, and renewables capacity.

Figure 4 – Capacity Fuel Mix



As illustrated in Figure 4, the 2015 fuel mix is fairly comparable to 2006, with the exception that the capacity contribution of renewables[9] has increased by nine percent and coal has decreased by seven percent. The 2015 fuel mix increases the diversity of the overall portfolio principally from additional renewable sources, while retaining the benefits of fossil fuel diversity by continuing to include significant natural gas and coal contributions. The portfolio also retains the flexibility associated with short-term purchases.

Although the Company has sold its Palisades Nuclear Plant to Entergy, Entergy will sell all of the plant's current capacity and energy back to Consumers for fifteen years at a price that retains the benefits of the low-cost nuclear generation. This power purchase agreement is reflected in the 2015 nuclear segment of Figure 4.

MCV

MCV makes up approximately 15% of the Company's existing generation and long-term purchase contracts and is an important part of the portfolio. MCV is a natural gas-fired plant, but contract payments to MCV and recovery of MCV costs from customers are based on an avoided cost pricing structure that reflects capacity and energy costs that are associated with a coal-fired plant (the so-called "coal proxy" approach). The energy

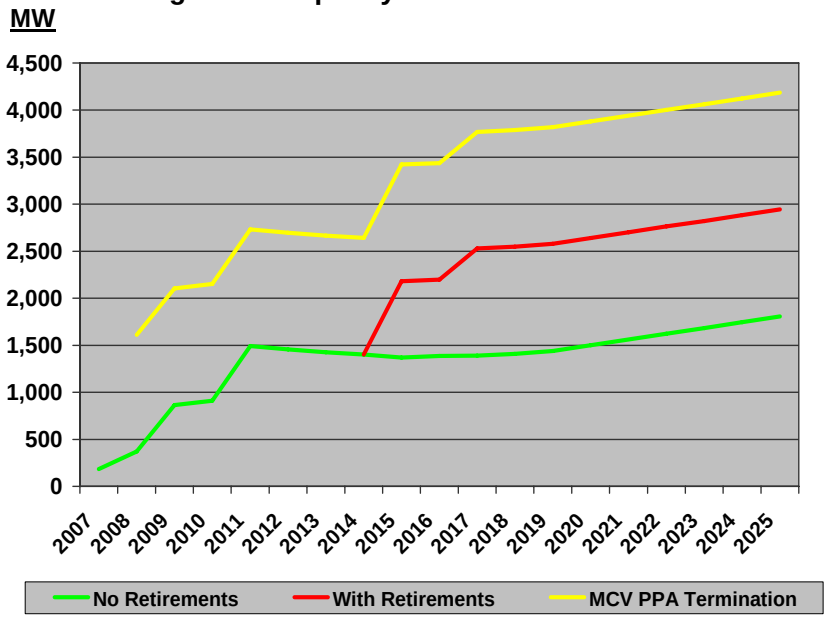
[9] Renewable capacity includes hydro, wind, landfill gas, anaerobic digestion (e.g., conversion of organic waste to methane), cellulosic biomass (e.g., wood) and waste components reflecting Consumers' existing renewable resources and assumed additions based on the 21CEP recommendations. The 2015 renewable segment includes the total nominal capacity for wind, and, consistent with the 21CEP, the BEI assumes that 12.5% of that value will be available for meeting peak demand.

payments and recovery are based on the actual generation costs associated with the Company's coal fleet.

The cost that the Company incurs under the MCV Power Purchase Agreement ("PPA") exceeds the recovery amount allowed by the MPSC by a current annual amount of approximately $55 million. After September 2007, Consumers expects to claim relief under the regulatory-out provision of the MCV PPA, thereby limiting the payments to MCV to the amounts collected from customers. If the Company exercises the regulatory out provision, the MCV Partnership may, under some circumstances, have the right to either reduce the amount of capacity it sells to Consumers Energy from 1,240 MW to 806 MW or to terminate the PPA. If MCV terminates the PPA, the facility might remain as an independent merchant facility in Michigan or the capacity could be reduced or retired.

As part of the Balanced Energy Initiative, Consumers has conducted an analysis of the cost of replacement power in the event that the PPA is terminated, and believes that it could replace that power at a cost that is no more than the amount it has been recovering from customers for the MCV-supplied power. Due to the uncertainty associated with this situation, the BEI has analyzed the most economic expansion plans under a range of potential MCV scenarios, from continuation of the current contractual arrangement to loss of the facility from the Michigan market. Termination of the PPA would affect the resources needed to maintain a balanced portfolio, and is discussed below in the Scenario Results section. Figure 5 illustrates the potential capacity shortfall if the MCV PPA is terminated as well as a comparison to the shortfall scenarios discussed previously.

Figure 5 - Capacity Shortfall Scenarios



Modeling

The development of the BEI utilized a modeling process similar to the 21CEP to evaluate a broad range of potential supply portfolios across a series of scenarios to determine the amounts and types of capacity that best meet the demand projections from a long-term economic and risk perspective.

The Company uses the Strategist computer software system developed by NewEnergy Associates to carry out its resource plan modeling[10]. The modeling process begins with the development of a set of reference input assumptions ("reference scenario") and a set of new generation resource alternatives as summarized in the next section. Based on the assumptions, the Strategist model optimizes the resource alternatives according to technology, timing, and amount to arrive at a least cost generation expansion plan. Strategist also ranks all other potential expansion plans in economic order.

Changes to the input assumptions are then used to represent sensitivity cases in order to test the sensitivity of alternative resource plans to variations in key assumptions. Sensitivity cases were also developed to explore the potential economic improvements associated with other resource alternatives such as repowering existing facilities, entering into contracts to purchase capacity and energy, purchasing existing generation facilities, or implementing alternative technologies. A combined plan that incorporates both new generating facilities and one or more of these refinements is referred to as a "supply portfolio".

Although the Strategist modeling provides an excellent foundation for decision making, the Company's use of the Strategist software has certain limitations in modeling risk and uncertainty. As a result, the Company also employed risk modeling techniques developed by Cambridge Energy Research Associates ("CERA") to qualitatively analyze the Strategist results from a risk perspective to arrive at a recommended supply portfolio which is discussed further in the Risk Analysis section.

Assumptions

The table below summarizes the major assumptions applicable to Consumers Energy's service territory and power supply system associated with the Balanced Energy Initiative modeling, including a comparison to the assumptions used in the 21CEP (also as applied to Consumers' system). In general, the BEI assumptions are consistent with 21CEP and in a few areas somewhat more conservative.

[10] Both the 21CEP and BEI used the Strategist computer software system developed by NewEnergy Associates.

Assumption	21CEP	Consumers BEI
Renewables	10% Renewable Portfolio Standard (RPS) in 2015	10% RPS in 2015
Energy Efficiency and Demand Management	619 MW energy efficiency and air conditioning load control by 2015[11]	400 MW energy efficiency and air conditioning load control by 2015
Reserve Margin	15%	11%
Plant Retirements	65-year life	Retirements if economic
Carbon Tax	Sensitivity case - $10/ton in 2010 to $30/ton in 2018	Reference case - $7/ton in 2010 to $30/ton in 2025
Capital Costs Pulverized Coal (PC) Gas Combined Cycle (CC) Gas Simple Cycle (CT) Integrated Gasification Combined Cycle (IGCC)	Installed $/kW $1,480 $530 $425 $1,999	Installed $/kW $1,934 $869 $493 $2,731
Market Capacity Prices	Excluded; non-firm energy only	Included; based on recent actual bids
Natural Gas Prices	2011 $8.50/MMBtu * 2018 $10.25 2025 $13.75 * Henry Hub price	2011 $6.68/MMBtu * 2018 $7.15 2025 $8.97 * Henry Hub price
Coal Prices	2011 $17.67/ton (mine) 2018 $22.33 2025 $27.00	2011 $10.84/ton (mine) 2018 $12.17 2025 $14.65
Demand Forecast	1.2% annual average growth rate	1.0% annual average growth rate

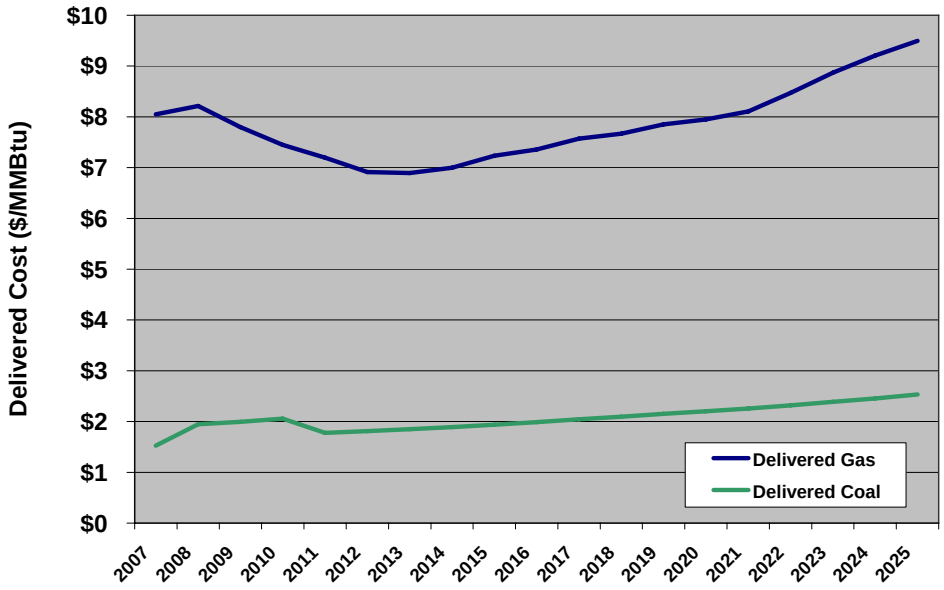
As in the 21CEP, the BEI modeling assumes a 10% renewable portfolio standard by 2015. The energy efficiency assumption in the BEI is somewhat lower than that used in the 21CEP. Consistent with national experience, the BEI assumes that energy efficiency savings associated with the 21CEP low penetration case represent a reasonably achievable objective. In addition, the BEI assumes implementation of a central air conditioning direct demand management program for residential and small commercial customers that will have peak demand and energy reductions similar to 21CEP. Achievement of the targeted demand reductions proposed in the 21CEP and adopted in the BEI will require strong involvement by Michigan's utilities. As the table also shows, the Company is utilizing an 11% reserve margin that is consistent with actual planning criteria used over the last several years[12].

[11] 619 MW is the amount from the 21CEP attributable only to Consumers Energy.

[12] See for example the Company's April 13, 2007 filing in MPSC Case No. U-15163, entitled "Report on Summer 2007 Capacity Plan." The planning reserve margin is subject to change as a result of activities currently being undertaken by a regional Planning Reserve Sharing Group of which Consumers Energy is a member.

All of the 21CEP cost projections, including fuel, were initially developed in 2005 as part of the Capacity Need Forum and adjusted in early 2006 while the impacts of hurricanes Katrina and Rita were still being reflected in high natural gas prices, and western coal prices were still being influenced by the extraordinary rail disruptions that occurred in the Powder River Basin in mid-2005. The BEI fuel forecasts are lower than the 21CEP reflecting the adjustments made for these unusual factors and are based on forecasts from five major independent forecasters. Figure 6 illustrates the relationship between the overall delivered coal and delivered natural gas price projections used in the BEI modeling and reflect an average delivered coal cost advantage over natural gas during the study period that is comparable to today.

Figure 6 - Delivered Fuel Prices



Relative to the potential of Federal carbon emission legislation, the 21CEP emissions modeling scenario and the BEI reference scenario both assume the implementation of a tax on carbon dioxide ("CO_2") emissions in 2010. Regarding market purchases of capacity and energy, the 21CEP modeling included non-firm spot market purchases and sales of energy with out-of-state counterparties only. The BEI sensitivity analysis has analyzed the use of short- and intermediate-term intrastate power purchase contracts for both capacity and energy as well as the potential to purchase existing gas-fired facilities, based on the results of a recent Company solicitation.

Finally, the BEI capital costs associated with the various generating technology alternatives are significantly higher than the 21CEP reflecting higher commodity (e.g., plant construction materials such as steel) and labor costs that have escalated rapidly throughout 2006, as well as increasing demand for generation components and systems worldwide. Overall, the BEI modeling included the following central generation options (also listed are the minimum lead times from project start to commercial operation utilized in the BEI modeling):

Technology	Lead Time Years
• Pulverized clean coal (sub-critical and super-critical) (“PC”)	8
• Sub-critical circulating fluidized-bed boilers (“CFB”)	8
• Integrated gasification combined cycle (“IGCC”)	8
• Natural gas combined cycle combustion turbines (“CC”)	4
• Simple cycle combustion turbines (“CT”)	2

A description of each technology can be found in the Capacity Need Forum Central Station Workgroup report. Although nuclear power represents an important long-term resource option with stable pricing, high levels of safety and reliability, and most importantly, no greenhouse gas emissions, the Company has recently exited the nuclear ownership and operation business[13]. As a result, the Company would have an interest in power purchase arrangements associated with new nuclear generation but is not considering the construction of this type of central station option at this time.

Scenario Results

The primary scenarios used in the BEI analysis are designed to address key uncertainties regarding future events that have a significant effect on decisions that need to be made now in order to satisfy demand for electric power in the future. The BEI reference scenario assumes (a) a carbon tax or equivalent is imposed on the emissions of CO_2 from existing and new generating facilities, (b) increasing environmental regulations and physical obsolescence results in a number of the Company’s oldest coal plants being retired in the coming decade, and (c) the MCV PPA and associated capacity remains intact.

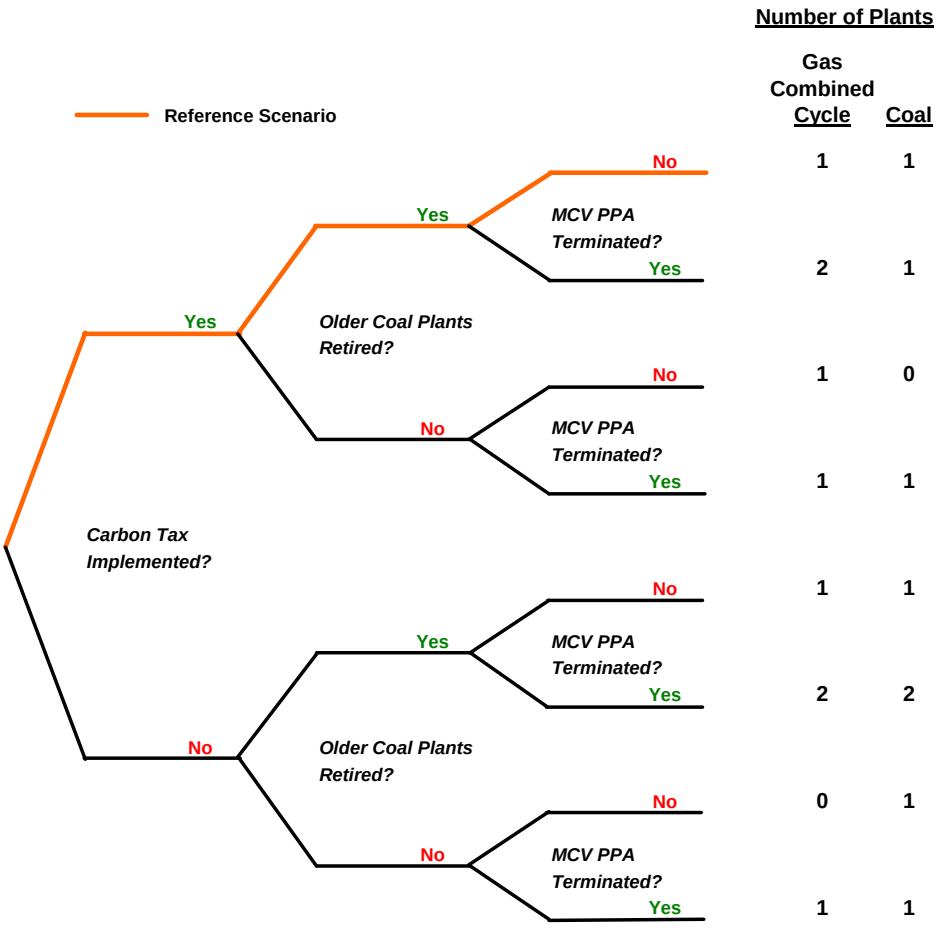
The Company recognizes that current concern with global warming and the emission of greenhouse gases may result in either a tax on carbon emissions or a cap and trade program similar to the existing programs for sulfur dioxide and nitrogen oxide emissions. For modeling purposes, the BEI uses a tax model to reflect a tax on each ton of CO_2 or as a proxy for the costs the Company would incur under a cap and trade program.

Alternative scenarios were also analyzed including variations that assumed no carbon tax, no unit retirements in the next decade, and the impact of the MCV PPA being terminated. The various scenarios combining these alternative segments and the number of major power plants that detailed computer modeling indicate would constitute a balanced portfolio are illustrated in the event tree depicted in Figure 7. For planning purposes, the Company believes that the most likely outcome of the eight possible combinations of the three key uncertain events is represented by the reference scenario (top line highlighted in orange in Figure 7).

[13] Consumers Energy sold its interest in the Palisades Nuclear Power Plant to Entergy Corporation on April 11, 2007. The Company will continue to receive the capacity and energy from the plant under a long-term power purchase agreement.

The supply portfolio associated with the reference scenario contains one new gas combined cycle facility and one new clean coal facility. All but one of the eight scenarios lead to at least one new gas combined cycle facility. In addition, all but one of the eight scenarios leads to at least one new coal plant. Balancing the risks of other potential outcomes in combination with the higher probability of the reference scenario and the results of the risk analysis (discussed in the next section) leads to the BEI conclusion that the addition of one coal plant by 2015 is a prudent strategy to provide for a reliable supply of capacity to serve the Company's customers.

Figure 7 - Scenario Results



Relative to the likelihood of retiring the Company's older plants, the modeling includes the environmental costs associated with complying with the upcoming Clean Air Interstate Rule requirements for existing plants. However, it is difficult to anticipate additional future air and water quality regulations such as those governing plant cooling water intake systems, mercury compliance costs at a State-imposed 90% reduction level[14], State Implementation Plan requirements for any future non-attainment areas, new

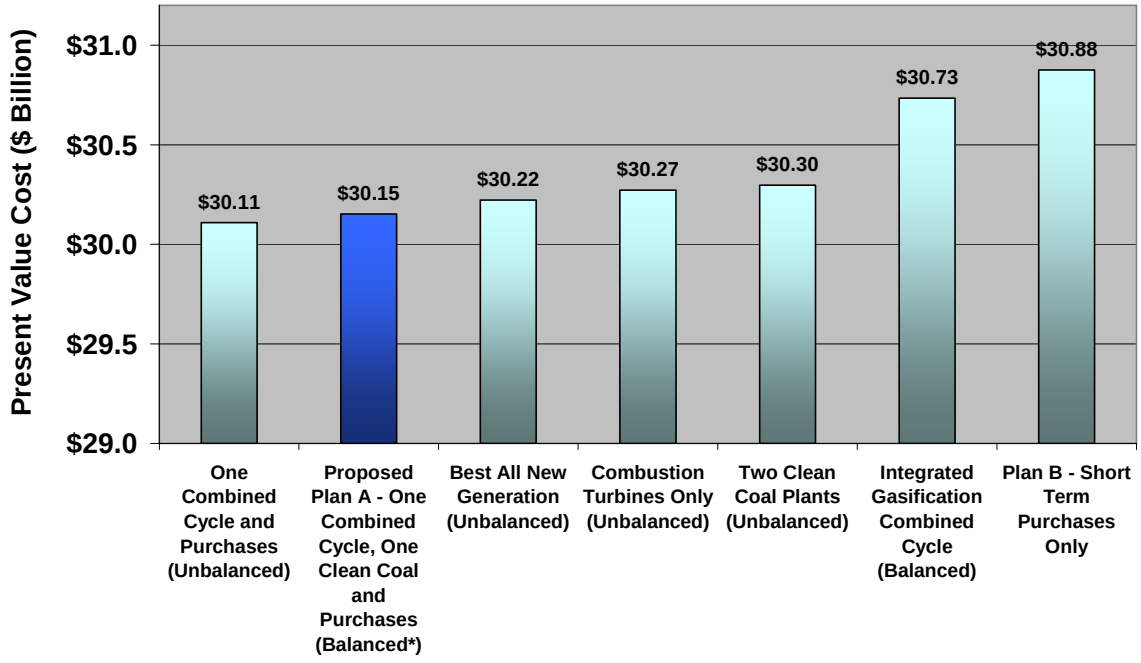
[14] Michigan mercury rules are expected to be more stringent than the Federal Rule, and more stringent than some neighboring states.

source review requirements, and the precise nature of the regulation of greenhouse gas emissions and the resulting cost of compliance.

The Company could be faced with significant costs to comply with these yet to be defined environmental requirements which could render the Company's older plants uneconomical. The BEI assumes that the scenario with plant retirements, although not a specific plan at this time, is the more likely scenario, keeping in mind that the stringency of future regulations and their associated costs will ultimately determine the timing of plant retirements. Conversely, the Company also cannot accurately predict the cost and effectiveness of new technologies in meeting any future potential environmental requirements.

The BEI analysis evaluated a broad range of potential supply portfolios across the scenarios summarized in Figure 7 to determine the amounts and types of capacity that best meet the demand projections from a long-term economic perspective. Figure 8 summarizes the total costs associated with a number of alternative supply portfolios analyzed under the reference scenario (i.e., all plans include the following conditions: implementation of a carbon tax, retirement of the Company's oldest facilities, and continuation of the current MCV PPA).

Figure 8 - Cost of Alternative Supply Portfolios
Reference Scenario



* Balanced indicates a portfolio that contains a mix of gas-fired and clean coal facilities; unbalanced indicates a portfolio that contains primarily either gas or coal facilities.

The proposed balanced supply plan (Plan A, dark blue bar in Figure 8), including the assumed energy efficiency, demand management and renewable additions (as illustrated in Figure 1) consists of adding 500 MW of natural gas-fired combined cycle capacity in

2011 followed by a net 500 MW clean coal plant in 2015[15]. The plan also includes purchases of short-term capacity and energy over the 2009-2015 period pursuant to the Company's recent solicitation for power[16].

The combined cycle capacity addition could also be met with the purchase of an existing gas-fired facility. This has the potential to be less costly than a new plant and may represent an opportunity to lock in supply reliability and known pricing for customers earlier than constructing a new facility.

As illustrated in Figure 8, a series of alternative portfolios were evaluated to assess the relative economics of other supply strategies. The portfolios designated as "balanced" refer to those that contain a mix of gas-fired and new clean coal facilities consistent with the results of the risk analysis which is discussed in the next section. The portfolios designated as "unbalanced" refer to those that rely primarily on either gas or coal facilities.

Although the first supply portfolio depicted in Figure 8 (one combined cycle and purchases) has a present value cost (modeled using strategist) that is slightly lower than the proposed portfolio (by about $43 million out of total present value of $30.1 billion or about 0.1%), it is an unbalanced portfolio. This means that the portfolio is more susceptible to natural gas price variability and therefore more risky than the proposed portfolio that reduces risk by utilizing both gas and coal fired resources. The benefits of such a balanced portfolio are discussed further in the next section.

As Figure 8 reveals, several portfolios have total present value costs that are very close together reflecting the relative parity of gas-fired and pulverized coal technologies under the BEI assumptions, and reflecting the need to incorporate risk into the decision making process. However, a plan that includes only short-term purchases and no long-term plant construction commitments (Plan B), which assumes that the recommended legislative and regulatory changes do not occur, has a projected present value cost that is approximately $700 million higher than the recommended portfolio.

Utilizing IGCC technology rather than supercritical pulverized clean coal, discussed below, also has a significantly higher cost. In all cases analyzed, the imposition of a carbon tax increases the modeled portfolio cost by approximately $5 billion in present value or 20% above the portfolio cost without a carbon tax.

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[15] The model result is based on the economics of constructing a 750 MW pulverized coal plant, of which 500 MW would be dedicated to Consumers Energy. Consumers Energy and the Michigan Municipal Electric Association have signed a Letter of Interest indicating that the two parties are interested in a new generation plant with shared ownership. Other parties have also expressed interest in sharing ownership of new coal generating capacity. In addition, the final clean coal plant capacity could be in the 750 MW to 800 MW range, depending on the final cycle design and the potential capacity requirements of partners.

[16] The Company issued a market solicitation on January 17, 2007, requesting power purchase proposals for 200 MW of annual dispatchable power for the 2009-2015 period and 800 MW of summer dispatchable power for the 2011-2015 period. Respondents were also invited to submit alternative proposals to sell existing gas-fired electric generating assets.

Risk Analysis

There are four key drivers of uncertainty in the BEI modeling that can impact the economics of a decision to construct a baseload natural gas versus a baseload coal facility to meet the capacity shortfall identified in Figure 3: natural gas prices, coal prices, capital cost, and carbon legislation. Part of the BEI modeling has included quantitative probabilistic modeling of these variables to ascertain the cost/risk characteristics of the various portfolios considered and help differentiate between the Strategist results shown in Figure 8.

The results of the risk analysis indicate that the new incremental baseload generation portfolio that minimizes these risks to customers should be a balanced mix of approximately 57% clean coal facilities and 43% natural gas facilities[17]. Since the mix percentages must be tempered with the economic sizing of potential new facilities, achieving these precise percentage levels may not be practical. As a result, the Balanced Energy Initiative proposes the addition of a 500 MW combined cycle facility in 2011 and one new 750 MW clean coal facility in 2015 (with 500 MW dedicated to Consumers Energy), which is generally consistent with the results of the risk analysis.

The risk analysis was also subjected to a range of assumptions including raising the magnitude of the carbon tax by a factor of two by 2025, the potential for gas prices to rise by 10 – 20% as a result of a carbon tax, and the impact of higher fuel variability levels. These sensitivity analyses show that the optimum portfolio should be a mix of clean coal and natural gas, slightly weighted towards coal, regardless of the magnitude of the carbon tax. In addition, as fuel price variability increases, the optimum coal percentage increases.

Transmission

The BEI modeling has also considered the potential role of transmission expansion in helping to meet future demand and potentially reducing generation requirements. The results of a transmission expansion sensitivity case that increases import capabilities into Michigan show increased overall costs relative to the proposed Plan A.

Nonetheless, Consumers Energy believes that increased transmission capability should continue to be studied as part of a balanced and well diversified portfolio, and that economic transmission investments could reduce risks to customers and enhance overall system reliability. For example, increased transmission capacity into Michigan could increase access to economic energy from other parts of the Midwest Independent Transmission System Operator (Midwest ISO or MISO). Increased transmission capacity within Michigan may also be an economical means of reducing transmission congestion

[17] The risk model also concludes that simple cycle combustion turbine facilities are not a significant part of an optimum portfolio mix due to the significantly higher level of risk associated with the benefits of installing this type of capacity relative to purchases from the market. Although the Strategist model selects a number of combustion turbine installations, these decisions do not need to be made at this time due to the relatively short lead time for installing this technology. The economic trade-off between short-term capacity and energy purchases versus the installation of new combustion turbines will continue to be evaluated as future demand patterns become apparent. The BEI does not recommend any specific CT construction at this time.

and increasing west to east power flows. However, specific transmission project proposals should be subject to thorough cost/benefit scrutiny.

In a recent letter to Consumers Energy, the Midwest ISO has commented that "neither transmission nor generation alone can meet the reliability and market needs of the Midwest ISO…, that the Midwest ISO strongly believes in a diverse portfolio of supply…, and that the Midwest ISO's studies show specific needs within the Lower Peninsula of Michigan under any scenario for additional baseload generation by 2015."

Greenhouse Gas Emissions

Concerns about climate change and the potential for related restrictions on the emissions of CO_2 and other greenhouse gases have highlighted the need for strategies that will reduce greenhouse gas emissions while meeting the needs of growing electrical usage. Improving energy efficiency and increasing the use of non-carbon producing energy sources such as nuclear and other renewable generation are key components of this strategy. Both the 21CEP and the BEI recognize the need to reduce electric demand and invest in generation sources that minimize environmental impacts.

Nonetheless, as a recent Massachusetts Institute of Technology ("MIT") study[18] concluded, "the challenge for governments and industry is to find a path that mitigates carbon emissions yet continues to utilize coal to meet urgent energy needs." The MIT study also concludes "that coal use will increase under any foreseeable scenario because it is cheap and abundant." In recent testimony before the U.S. Senate Committee on Energy and Natural Resources, Electric Power Research Institute ("EPRI") reported[19] that "most forecasts of future energy use in the United States show that coal will continue to have a dominant share in our electric power generation for the foreseeable future." The results of the BEI expansion plan modeling and risk analysis are consistent with these conclusions. In addition, the U.S. has large native coal reserves, and displacing the need for imported oil and gas with coal helps address energy supply and national security concerns by reducing the dependence on unstable foreign fuel sources.

As outlined above, the Company considered traditional pulverized clean coal technologies as well as developing integrated gasification combined cycle technology. It is believed that both technologies can be equipped later with systems to capture carbon emissions for ultimate storage or sequestration. This emission reduction strategy, referred to as carbon capture and sequestration ("CCS"), is a process whereby CO_2 is captured at the source and subsequently stored in underground reservoirs in either a gaseous or liquid form.

Although some believe that IGCC may be the best candidate for CCS, neither IGCC nor other coal technologies have been clearly demonstrated with capture and sequestration. Both MIT and EPRI conclude that there is no clear preference for either technology and

[18] The Future of Coal – Options for a Carbon Constrained World, Massachusetts Institute of Technology, March 14, 2007.

[19] Testimony: "Future of Coal" presented to the U. S. Senate Committee on Energy and Natural Resources by Bryan Hannegan, Vice President Environmental, EPRI, March 22, 2007.

that considerable further research and development is needed[20]. Some believe that retrofitting an IGCC plant to later accommodate CCS may be cheaper than the retrofit cost of a PC plant. However, this has not been demonstrated, and as the EPRI assessment indicates, "the additional cost of electricity for CCS will depend on the coal type, location and the technology employed." EPRI also reported that with sub-bituminous coals, such as the Powder River Basin coal that the Company predominantly burns today, some studies show that PC technology with CCS and IGCC technology with CCS show similar costs. The MIT study also concludes that "pre-investment in 'capture ready' features for IGCC or pulverized coal plants designed to operate initially without CSS is unlikely to be economically attractive."

Consistent with the MIT study conclusion, the costs utilized in the BEI modeling do not include any "capture ready" features, and the results show that IGCC represents a higher capital cost as well as a higher total cost alternative (as shown in Figure 8, the IGCC portfolio has a present value cost that is almost $600 million higher than the proposed plan). The Company has also concluded that implementing IGCC at this time represents both a reliability and cost risk to customers without any substantial benefit of improved plant technical performance or emissions performance.

The Company also recognizes that the attention on carbon reducing technologies is expanding and IGCC may well eventually represent a cost effective solution in the future. However, in light of the larger operational and technological uncertainties associated with IGCC and the imminent need for reliable coal-based generation, the Company believes that the best current path for the next baseload coal facility is to invest in the highest efficiency, well-proven pulverized coal technology available[21]. This also represents an economic bridging strategy to a longer-term future that is likely to include more reliance on nuclear power plants, the best clean coal-based technology to reduce greenhouse gas emissions that will emerge from further research, development and demonstration, and expanded energy efficiency and renewables programs.

Conclusions

Incorporating assumptions generally consistent with the 21st Century Energy Plan, including implementation of various energy efficiency and demand management programs to reduce electric demand, significant expansion of renewables, modest load growth projections for the Company's service territory, and short-term purchases of economic capacity and energy, the Balanced Energy Initiative identifies a significant need for new generation.

As a practical matter, if limited to new construction options, the need for approximately 1,500 MW by 2011 (which drops to about 1,400 MW by 2015 due to assumed increasing energy efficiency and renewables and then continues to rise) can only be met with gas-fired generation due to the lead times for other technologies. Further, the BEI modeling indicates that short-term purchases in conjunction with additional combined cycle gas-

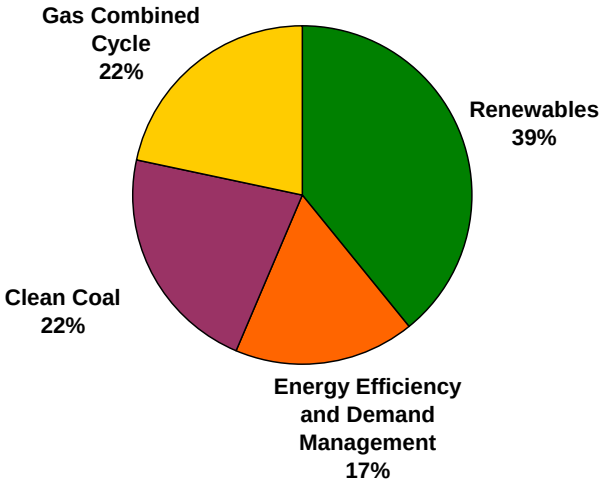
[20] In addition, there are public safety implications of storing large concentrations of CO_2 underground near population centers which has largely been unaddressed at the federal and state levels.

[21] The proposed clean coal facility in the BEI is expected to be 10% more efficient than the Company's existing coal plants and have a corresponding reduction of 10% in CO_2 emissions.

fired generation is an economic way to meet this short-to-intermediate term demand and help prepare for longer-term requirements.

The modeling also indicates that a new baseload clean coal facility should be constructed as soon as possible to economically meet the projected demand after 2014. This is a fairly conservative approach based upon the most likely scenario of uncertain future events associated with a carbon tax, potential retirements of Consumers' oldest coal plants, and resolution of MCV contract uncertainties. To address potential scenarios that would lead to a portfolio that would include two pulverized coal units, it is also important to preserve the option of building a second coal plant in order to leverage the economies of a twin-plant project.

Figure 9 - Capacity Additions* 2007 - 2015



*** Supplemented with short-term purchases**

The relative contribution of the major capacity additions assumed and proposed between now and 2015 is illustrated in Figure 9. The Balanced Energy Initiative represents a comprehensive and well balanced approach to providing the electric resources that are needed to support economic growth in Michigan, while recognizing the environmental, technological and other risk factors that the industry faces. This Initiative represents a significant investment in Michigan's future.

Requested MPSC Actions and Approvals

Based on the analysis and testimony presented in this case, Consumers Energy is requesting the following MPSC actions and approvals:

1. Approval of the Company's proposed resource plan as prudent and reasonable, recognizing that MPSC approval and action by the state legislature to repeal or significantly reform PA 141 will be necessary for the Company to proceed. The repeal or significant reform of PA 141 should be accompanied by adoption of a new up-front certification process ("Certificate of Need") for the development of new generating plants, including a requirement of competitive bidding for the engineering, procurement and construction of the plant.

   The Company will work with the MPSC, the MPSC Staff, legislators, and other stakeholders to develop and implement the proposed changes to PA 141.

2. Consistent with a new certification process, find that the addition of 500 MW of gas-fired combined cycle capacity by 2011 is reasonable and prudent. This addition could be in the form of the construction of a new gas-fired facility at the Company's Thetford site, or in the form of a purchase of an existing facility. The Company would pursue the option of purchasing an existing facility only if could acquire such capacity at a more economical cost. The Commission is requested to make the following findings:

   - Power from the proposed combined cycle facility is needed.
   - The technology and design characteristics described in this filing are reasonable and prudent to meet the need.
   - Capital costs will be recoverable in retail rates, subject to the following: (i) if the Company elects to construct a new facility it would competitively bid the engineering, procurement and construction of the plant, (ii) if the Company elects to purchase existing capacity, it would demonstrate that the resource plan associated with this alternative would be more economical compared to new construction.
   - Under the construction alternative, financing and pre-construction costs will be recoverable as outlined in this filing.

3. Find that the technology choice recommended in the Balanced Energy Initiative of a 750 MW supercritical pulverized clean coal facility for commercial operation by 2015 is reasonable and prudent. The Company anticipates amending its current filing in approximately three to four months with additional engineering and cost detail associated with this clean coal facility.