Ensuring Michigan's Future

Submitted by Michigan Environmental Council

April 25, 2013

Overall Questions:

1. What information do energy policy makers need to consider in order to make good energy decisions?

To answer the question of what data is needed by policy makers to make good energy decisions the state has to first articulate what goals it is trying to achieve through its energy policy. Unfortunately, at this time the state does not have an "energy plan" in which one would expect to find those goals. The lack of an agreed upon set of clear goals also makes it difficult for regulators to determine whether utility investments and expenditures are "reasonable and prudent" and thus should or should not be recoverable through energy rates.

The Governor in his address has identified at least three goals (affordability, reliability, and protection of the environment). He has also introduced what could be characterized as a fourth goal in his desire for a "no regrets" policy. This brings in the concept of "minimizing risk" and choosing a course that will not result in future surprises for Michigan ratepayers or residents.

Another initiative of the Governor and the Michigan Economic Development Corporation is the Pure Michigan Business Connect program. At its core, the initiative is focused on having Michigan businesses use other Michigan businesses, to the extent possible, supply the goods and services they need to serve their customers. As we move forward with energy policy another goal should be to promote economic development and the use of Michigan-made products and Michigan workers whenever possible.

The last concept related to affordability that could also be stated as a goal would be "fairness". Energy users should pay (or have the opportunity to pay) approximately the same amount for energy as other similarly situated users.

Therefore, we would suggest establishing the following as the goals of a Michigan energy plan and collecting and analyzing data on how our state can best achieve those goals:

1. **Control costs** - The state should try to keep the cost of energy affordable to Michigan businesses and families. This analysis of costs should look at both the cost of electricity itself as well as external costs such as health care costs and damages to natural resources.

2. **Minimize risk** - An overall goal of our energy investments should be to reduce the risk of future surprises to Michigan ratepayers and residents. The concept of risk in the energy field includes a number of concepts including the following:
    - Risk that rates will escalate in the future based on the cost of fuel or other inputs, or changes to federal emissions regulations

- Risk that a major generating source of power will be underutilized and thus its fixed costs spread across a reduced number of megawatt hours (increasing the life-cycle costs)
- Risk that the manner of generating power may result in harm to public health and natural resources

3. **Fair rates** - Rates should be fair with customers paying their fair share based on the cost of service for providing them power. Those rates should be based primarily on the type of connection to the grid, the time of day the power is used and a fair portion of the transmission and distribution costs of providing power. Rates based on arbitrary classification of customer types should be eliminated.

4. **Promote economic development** - Michigan businesses and residents spend over $10 billion each year on electricity. Utilities should be encouraged to maximize the expenditures of those funds within the state in a manner that uses Michigan workers and Michigan manufactured goods.

5. **Protect public health and natural resources** - Energy providers should be required to minimize their impacts on public health and our natural resources. Although the EPA and other agencies set pollution discharge standards for certain facilities they do not completely eliminate the emissions. Those remaining emissions have demonstrable impacts on Michigan residents and our natural resources. Energy providers should be required to consider those impacts and minimize them when prudent alternatives are available.

6. **Preserve excellent reliability** - As stated by the Governor, maintaining our high level of reliability is good for Michigan businesses and is evaluated by businesses considering a move to Michigan.

Additionally, the energy field is changing rapidly and the best way forward for our state will likely look very different from the energy business model of the past century. As policymakers are considering how to achieve energy goals and make good energy decisions for our state, it is important for them to look at our regulatory process and update it to improve our chance for success. It is crucial that we work toward aligning the goals of our energy providers and their shareholders with the goals of ratepayers and residents of the state. Unfortunately, in many respects the current business models of Michigan utilities are not aligned with what is in the best interest of ratepayers. To the extent they can be realigned to match through the regulatory process, our utilities will be stronger companies and the needs of the ratepayers will be met.

Renewable Energy Questions:

2. To date, what has been Michigan's cost of renewables, and how has that impacted rates paid by residential, commercial, and industrial customers?

Overall costs of renewable energy has plummeted between 2008-2012

Since the passage of PA 295 of 2008, Michigan has experienced a significant drop in the cost of renewable energy. The first wave of contracts approved by the Michigan Public Service Commission cost in the range of 11.5 cents per kilowatt hour (kWh). In just three years, Michigan has seen that price cut in half, with new contracts for wind energy falling below 5 cents per kilowatt-hour.[1] The City of Holland in October of 2012 entered into a long-term wind contract for 4.5 cents per kilowatt-hour. News coverage of the agreement stated:

> [Holland Board of Public Works] BPW would pay only 4.5 cents a kilowatt hour for power – an amount usually seen for energy from fossil fuels - from Wildcat 1 during the first year of the agreement, with increases of 2 percent annually up to 6.1 cents a kilowatt hour during the final year of the agreement.[2]

It is important to note that the current per kilowatt costs for renewable energy is now less than the average non-renewable costs for both DTE and Consumers Energy. According to a recent report prepared by Public Sector Consultants, the current average cost of conventional sources by Detroit Edison was 6.88 cents per kilowatt-hour, and 7.44 cents per kilowatt hour for Consumers Power.[3]

According to the MPSC 2012 report on Public Act 295 of 2008, 94% of the new renewable capacity that has come online in Michigan is onshore wind development. As will be explored in later questions, it is important to note that wind facilities have the additional benefit of locking in long-term prices on twenty year contracts. So, although Michigan ratepayers may be paying slightly more than the average cost of conventional sources over the first five years of the program, the costs of maintaining and operating conventional sources continues to rise and is likely to exceed the cost of even the more expensive renewable assets over their useful lives.

In summary, although renewable costs were initially higher than the generation costs of conventional sources, they are now below the cost of the average non-renewable resources from Michigan's two largest electricity producers. This fact is critical when discussing whether to move beyond a 10% renewable energy. Every additional dollar we spend will put downward pressure on rates and save Michigan resident money.

What has been the impact on rates?

Public Act 295 includes a provision which requires a portion of the renewable energy to be paid for through a per-meter renewable energy surcharge. Those per-meter surcharges have resulted in a disparate impact on customers of different rates classes. Concerns with

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[1] http://www.dleg.state.mi.us/mpsc/orders/electric/2012/u-16582_10-31-12.pdf, U-16582
[2] http://www.mlive.com/business/west-michigan/index.ssf/2012/10/holland_utility_to_tap_indiana.html
[3] Proposal 3: Key Questions and Answers, Public Sector Consultants , September 2012 (pg. 4)

the per-meter charges and the reasons for transitioning to a volumetric method of payment are the following:

1) Because of where the caps were set for each customer class, a significant portion of the cost of renewable energy costs were shifted from the industrial and commercial classes to the residential sector in the DTE service territory.

2) The surcharge perpetuates the myth that renewable energy is more expensive than other forms of energy. In practice, renewable energy is now cheaper than new base load coal, nuclear or natural gas capacity and is below the average costs of all non-renewable resources.

3) The per-meter mechanism takes away a portion of the incentive to conserve energy use because it removes the financial benefit for doing so.

Background on how the surcharge works

In Michigan, the total costs for new renewable power is broken into two parts -- the transfer price (approximately the wholesale price of power if you were to buy it at any one time) and everything above that amount.

The transfer price portion is passed through to customers using the same formula and method as all other energy. The amount above the transfer price is passed onto customers through the use of the per meter renewable surcharge.

The charges are adjusted to reflect actual costs, but they are designed to remain steady over the life of the program. Therefore, instead of slowly increasing rates to match renewable energy production, Michigan had customers start paying the surcharge immediately. In early years, the utilities will build up a surplus of surcharge funds as they collect more than needed. In later years they will draw on this fund when revenues drop below expenditure requirements.

How it plays out with our two major utilities (serving roughly 75% of Michigan's market)

For DTE the total cost to ramp up to the first 10% renewable target is currently estimated to be $6.4 billion. The company is projecting that about $4.4 billion falls into the transfer price. They are currently projecting that $2,012,466,868 will be paid through the surcharge over the life of the plan (roughly 20 years).

In 2010, residential customers were responsible for about 36% of total sales in kWh to ultimate customers. Yet in 2010 residential customers paid about 69% of the total surcharge revenue. If you multiply $2,012,466,868 by 69% you get $1,388,602,139. If

you multiply $2,012,466,868 by 36% you get $724,488,072. The bottom line is that if the current surcharges were continued residential ratepayers over the twenty year period would pay would pay $664,114,066 for electricity they would not get. (Ex A-17 in Case U-16582)

The numbers for Consumers Energy are different because they had more renewable energy to begin with. The difference between the percentage of power used and the percentage of the surcharge paid is much closer. Instead of a $3.00 surcharge for residential customers, Consumers Energy only collects $0.52/month. So, there is not the same problem of the residential ratepayers subsidizing the commercial and industrial customers (for the initial 10%).

3. How do Michigan's costs for renewable energy compare to the cost of existing generation and to the cost of new non-renewables generation today?

Although there are a number of entities that try to predict the future cost of energy, we think it is important to use as much Michigan specific information as possible when predicting future costs in Michigan. The average retail cost of a kilowatt-hour (kWh) in Michigan increased from 6.97 cents in 2000 to 10.37 cents in 2011, a growth rate averaging 4% a year over the period.[39] From 2005 to 2010, the growth rate averaged 7% per year. Due to deskewing changes the rates for residential ratepayers have gone up 45% over the same time frame.

The attached study, *25% by 2025: The Impact on Utility Rates of the Michigan Clean Renewable Electric Energy Standard*, was prepared to compare the cost of business as usual in Michigan (a combination of our non-renewable resources plus the additional 10% of renewable resources required by Public Act 295 of 2008), with adding an additional 1.5% of renewable energy per year through 2025. The study made the following findings:

- For the 14-year period of 1998 through 2011, total costs paid by Consumers Energy customers rose at an average annual rate of 3.6%.
- According to the MSPC 2012 Michigan Energy Appraisal, residential customers of Detroit Edison can expect to pay 13.5% more for electricity this year than last year, without accounting for higher usage due to the hot summer. Detroit Edison has estimated it will spend between $1.3 and $1.8 billion on pollution control equipment from 2012 to 2016. The company also has projected fossil fuel cost increases of $530 million over the next four years, which alone would raise rates by 3.1% annually.
- Therefore, the business as usual used in the study is very conservative in that it uses the lower 3.5% increase per year in the costs of providing non-renewable resources in the future, as opposed to the higher 7% per year Michigan ratepayers have been experiencing since 2006.

The report then compared those business as usual costs with the cost of blending in new renewable assets at the rate of 1.5% per year. The study reviewed renewable contracts to date

used a starting cost of $73 per megawatt for renewable energy, assuming that number would rise due to inflation. The $73 per megawatt number we now know to be more than $20 more per megawatt above what is available today, and $13 per megawatt above the anticipated costs if you removed the production tax credit. It concludes by finding:

- Even with that inflated cost, the study showed that the impact on rates would be less than ½ of 1% for the initial years and would put downward pressure on rates in the long term.

With the reduced cost of renewable energy being experienced today, Michigan's future investments in renewable energy would all put downward pressure on rates beginning immediately.

One of the largest drivers of rate increases on the non-renewable generation is fuel costs. The cost of coal delivered to Michigan utilities has risen by 78% between 2006 and 2012 according to the Energy information Administration (from $1.64/million Btu to $2.92/million Btu). That increase is significantly more than the national average and currently represents the highest costs in the region.

Geography is probably the main reason for the coal price escalation. Michigan is further away from Appalachian and Powder River Basin mines than most other coal burning states. Roughly 75% of the cost of coal delivered to Michigan is transportation costs and it is estimated that diesel fuel accounts for half of the transportation cost. Note the run-up in diesel prices started in 2008 and is in large part what is driving coal prices in Michigan. Railroads simply passed diesel costs on to utilities per their contracts. It is estimated that it takes 6 gallons of diesel fuel to move one ton of coal to Western mines to Michigan. As oil prices continue to increase our cost of electricity will also follow.

4. What are the predicted costs of new energy generation by type in the future? How would a carbon tax, increased carbon regulation, and the elimination of specialized tax treatment impact those cost estimates?

Question 4 addresses both the cost of new energy generation going forward and the impacts that regulations and subsidies will have on those prices. The good news is that the price of renewable energy has dropped significantly over the last four years to a point at which its levelized costs are below the costs of existing or new non-renewable energy sources. The second half of the question raises the important issue of trying to minimize risk of future price fluctuations, or using Governor Synder's frame, how do we design a "no regrets" policy moving forward.

A recent report, "ELECTRICITY REGULATION: What Every State Regulator Needs to Know**,** *How State Regulatory Policies Can Recognize and Address the Risk in Electric Utility Resource Selection,"*[4] highlights the need to improve regulation in this area.

[4] ELECTRICITY REGULATION: What Every State Regulator Needs to Know**,** *How State Regulatory Policies Can Recognize and Address the Risk in Electric Utility Resource Selection*, CERES Report (April 2012),

This report suggests an approach—"risk-aware regulation"—whereby regulators can explicitly and proactively seek to identify, understand and minimize the risks associated with electric utility resource investment.

Today's electric industry faces a stunning investment cycle. Across the country, the infrastructure is aging, with very old parts of the power plant fleet and electric and gas delivery systems needing to be replaced. The regulatory environment is shifting dramatically as rules tighten on air pollution from fossil-burning power plants. Fossil fuel price outlooks have shifted. New options for energy efficiency, renewable energy, distributed generation, and smart grid and consumer technologies are pressing everyone to think differently about energy and the companies that provide it.

At its heart, this report is a call for "risk-aware regulation." Regulators must focus unprecedented attention to risk—not simply keeping costs down today, but minimizing overall costs over the long term, especially in the face of possible surprises.

Carbon costs

Fossil fuel-based generation presents a significant risk of future cost increases if either carbon taxes are adopted by Congress or greater carbon regulation is proposed by the Environmental Protection Agency. This fact highlights a shortfall in our current regulatory program, which fails to account for future risk when evaluating whether utility investments are reasonable and prudent from the perspective of ratepayers.

Under current regulatory practices, utilities are allowed to shift the risk of rate increases to ratepayers. If the price of fossil fuels increase, or costs to control emissions from fossil fuel combustion increase, those costs are simply passed through to ratepayers. In the case of pollution control equipment, utilities actually have a counter-productive incentive in that they earn a rate of return on capital costs of new equipment. So, instead of providing an incentive to reduce risk for ratepayers this actually rewards the utility for investment decision that increase the risk of rate increases by encouraging the continued use of coal-fired power in the future. The regulatory process needs to develop a mechanism that does a better job at rewarding utility behavior that reduces the risk of future price rate increases.

Renewable energy and energy efficiency provide low cost and low risk options for meeting future demand

The costs of renewable energy have been steadily declining. The 2013 MPSC report found that: "The most recent contracts approved by the Commission for new wind capacity have levelized costs in the $52 per MWh range which is about 10 percent less than the cheapest levelized contract prices from a year ago and half of the levelized cost of the first renewable energy

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http://www.ceres.org/files/press-files/risk-aware-planning-and-a-new-model-for-the-utility-regulator-relationship/at_download/file

contracts approved in 2009 and 2010." And "Almost all renewable energy contract prices are lower than the coal guidepost."

The price of renewable energy in Michigan has dropped from 11.5 cents/kWh in 2009 to 5-7 cents/kWh in 2012. Contracts are currently available that lock these low costs into long-term contracts with relatively small inflationary costs increases. The value of these contracts to stabilize electricity prices and reduce risk must be recognized by the regulatory process.

Energy efficiency is the most cost effective energy resource at less than $16 per megawatt-hour (MWh). The MPSC 2013 Report concludes that the "combined cost of both Subpart A (Renewabl Energy Standard) and Subpart B (Energy Optimization Standard) of 2008 PA 295 is the $45.98 pe MWh." This is a little more than one-third the estimated cost of new coal at $133 per MWh.

Additionally, the MPSC 2013 report concluded: "**Commission Staff anticipates that the cost of renewable energy will continue to decline, while the benefits from energy optimization savin and emission reductions from offset generation will continue to increase.** The extended tax cr will undoubtedly provide further opportunity for Michigan ratepayers to continue benefiting from reduced renewable energy costs."

Subsidies

Part of question 4 asks about the impact that the elimination of special tax treatment would have a cost estimates. Unfortunately, market manipulation by government entities has altered energy markets for at least the past one hundred years. Those subsidies come in a variety of forms, including research and development assistance, special tax treatment, and regulatory programs that allow utilities to pass costs such as health care impacts onto residents without accounting taking them into consideration in the decision making process.

Direct Subsidies – A number of subsidies exist at both the state and federal levels for both renewable and non-renewable sources. A study by the Environmental Law Institute, **Estimating U.S. Government Subsidies to Energy Sources: 2002-2008** reviewed the federal subsidies for non-renewable energy versus renewable energy.[5] That report documents subsidies for fossil fuels of over $70 billion dollars, versus $12 billion for renewable resources over the six-year time period.

Although, the level of renewable subsidies have increased since 2008, the same is also true for the fossil fuel industry especially in the area of favorable tax treatment for non-conventional natural gas exploration. Another recent report issued by the Union of Concerned Scientist documents the significant ongoing subsidies received by the nuclear power industry.[6] That report makes the striking finding that

> "[S]ubsidies to the nuclear fuel cycle have often exceeded the value of the power

[5] http://www.elistore.org/Data/products/d19_07.pdf
[6] Nuclear Power: Still not viable without subsidies, Union of Concerned Scientist (2011), http://www.ucsusa.org/assets/documents/nuclear_power/nuclear_subsidies_report.pdf

produced. This means that buying power on the open market and giving it away for free would have been less costly than subsidizing the construction and operation of nuclear power plants. Subsidies to new reactors are on a similar path." (pg.1)

Production Tax Credit

The focus of much discussion recently has focused on the relatively recent subsidies for renewable power such as the production tax credit and similar programs. It is important to note that these assistance programs are usually for just the first ten years of the expected life of a facility. Recent estimates showed that elimination of this tax credit (currently scheduled to run through 2013) would add approximately $7 per megawatt hour to the levelized cost of a renewable energy project. Therefore, new contracts signed in Michigan in the $45-$52 range would rise to the $52-$59 range – still lower than the non-renewable alternatives.

State Subsidies

At the state level, the utilities receive a state subsidy for pollution control equipment that in 2011 amounted to over $50 million dollars and an additional $120 million in local tax relief.[7] These subsidies are in the form of exemptions from personal property taxes and sales and use taxes. The companies receive these tax breaks for putting in pollution control equipment necessary to meet federal law. In some cases, these tax breaks are actually harming public health in that they are used to justify continued operations of older, less efficient generating capacity that could be replaced with facilities that would significantly reduce emissions of pollutants.

Indirect subsidies

The largest single subsidy in the power generation field is the failure of our current regulatory system to consider public health impacts of power generation. In Michigan, our nine oldest coal-fired power plants are estimated to cause $1.5 billion dollars in health care costs and damages to Michigan residents each year. Those same facilities are responsible for an additional $3.9 billion in impacts to residents in other states (total of $5.4 billion annually).[8] If these costs were included in the cost of coal-fired generations in Michigan, the cost of existing generation would increase approximately $25/MWh just to reflect the impacts to Michigan residents. If we considered the impacts to residents across the country that number would rise to $90/MWh.

5. What transmission upgrade costs and back-up capacity / integration costs have Michiganders absorbed as part of the current renewables standard? Are any of those offset by other benefits of those investments?

Transmissions assets are used to transport all electricity between generation sources and end

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[7] http://www.michigan.gov/documents/treasury/AirPCYearlyActivityList2012_410631_7.pdf

[8] Public Health Impacts of Old Coal-Fired Power Plants in Michigan, Environmental Health and Engineering, Inc. (2011) http://environmentalcouncil.org/mecReports/PublicHealthImpactsofOldCoal-FiredPowerPlantsinMichigan.pdf (attached)

users. Therefore, few if any transmission assets are due solely to needs related to the renewable energy standard. One could look at the new transmission capacity in the thumb and claim it is related to new renewable assets located in that area of the state. However, the desire of DTE to close the Harbor Beach generating facility in the thumb would have required new transmission capacity regardless of the placement of the renewable assets.

This picture is further complicated by the impact those transmission upgrades will have on reducing the cost of wholesale power from renewable generating facilities. If those savings are subtracted from the costs over the long-term, most of those transmission upgrades will likely result in a net benefit to ratepayers, not a net cost.

Candidate MVP Portfolio Study

The Midwest Interstate Transmission Organization (MISO), as part of its ongoing effort to maintain excellent reliability in Michigan and across the MISO territory has developed a process for evaluating and approving transmission grid upgrades. In January 2012, MISO completed its Candidate Multi Value Project Study. The overall finding was:

> The final MVP portfolio combines reliability, economic and public policy drivers to provide a transmission solution that provides benefits in excess of its costs throughout the MISO footprint. This portfolio, when integrated into the existing and planned transmission network, resolves about 650 reliability violations for more than 6,700 system conditions, enabling the delivery of 41 million MWh of renewable energy annually to load. The portfolio also provides strong economic benefits; all zones [1] within the MISO footprint see benefits of at least 1.6 to 2.8 times their cost.[9]

Back-up Capacity

The concept of back-up capacity is equally complex. Since the passage of PA 295 of 2008, Michigan has been in an over-capacity position due in large part to our economic downturn. Therefore, there has been no need to create back-up capacity for the relatively small amount of renewable energy that has been added to date.

Another example of the complexity of this issue is demonstrated through the investment decisions of Consumers Energy. In the past twelve months, they have reduced their use of coal-fired capacity to below 45% and increased their use of natural gas fired capacity to above 25%. In addition, they have announced their desire to build additional natural gas capacity in 2013. This natural gas capacity provides flexible back-up capacity for a greater commitment to renewable energy. It is also saving ratepayers money because of the relatively low cost of natural gas. However, when the wind is blowing, renewable assets can produce energy at a marginal cost that is virtually zero, reducing the need to burn any fuel. Therefore, any exercise that tries to assign costs of natural gas between its current value of a low-cost producer and its potential backup use to renewable energy will be somewhat arbitrary.

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9 https://www.midwestiso.org/Library/Repository/Study/Candidate%20MVP%20Analysis/MVP%20Portfolio%20Analysis%20Full%20Report.pdf

We think a more productive analysis would closely examine the overall portfolio of investments by a utility to meet various goals and treat them as an integrated whole as opposed to assigning costs and benefits (which in many cases will not be known at the time of the investment itself).

6. How can reliability costs and benefits be assessed and incorporated into an analysis of renewables costs? Has any jurisdiction tried to do so, and if so, how?

We do not think it is productive to assess costs and benefits to particular generating sources. Renewable energy can bring certain advantages to a utility's overall portfolio such as stable long-term prices, low volatility, low public health externalities and more economic development opportunities which should be valued by our regulatory decision making structure. Other assets may provide higher reliability benefits, but present higher volatility risks, public health impacts and other costs not currently considered by our current regulatory process.

A robust integrated planning process can evaluate the pros and cons of different allocations of technologies and help select one that is "most reasonable and prudent" from the perspective of ratepayers. We think this also places "reliability" in the right context. What is important for ratepayers is not whether any particular source or class of sources is reliable, but whether all the potential sources under control of the utility or MISO can provide excellent reliability to Michigan power users. While a renewable source may be intermittent, that fact is irrelevant for grid operators as long as the source is predictable (can anticipate production 24 hours in advance) and sufficient load following and peaking capacity is available to compliment its use of the system.

Unless and until all positive and negative attributes of energy sources are accounted for in energy decisions it is arbitrary to assign costs based on just one of many important factors associated with energy production.

9. What is the long-term potential for more wind, solar, hydro, biomass, landfill gas, and other renewables sources in other locations to which Michigan is tied electrically?

There are several reasons that provisions were included in current law requiring renewable energy to be generated within the service territory of utilities that serve Michigan customers. Those reasons include the following:

A. Renewable energy carries with it a number of benefits to the citizens of Michigan, a major one being improvements in air quality. Ninety four percent of new renewable energy capacity since the passage of PA 295 of 2008 has come in the form of onshore wind development. This capacity in large part has displaced energy from the older coal-fired facilities that contribute to over $1 billion dollars a year in health care costs and damages to Michigan residents. This significant benefit to Michigan residents would be considerably reduced if renewable energy came just in the form of credits purchased from distant

markets.

B. In some instances Michigan utilities have purchased renewable energy at above market rates from facilities such as landfill gas and anaerobic digesters. These purchases are in the best interest of Michigan residents because they help reduce the environmental impacts that those sources would otherwise present to their communities.

C. Transmission constraints sometimes prevent or make prohibitively expense moving energy from sources not in our geographic vicinity. By restricting the generation of renewable energy to the service territory of existing utilities we increase the reliability of the overall system.

22. Michigan law currently contains provisions for incentive renewable energy credits, and advanced cleaner energy credits. What impact has the provisions for incentive renewable energy credits and advanced cleaner energy credits had on renewable energy in Michigan? What has been the impact of similar provisions in other jurisdictions?

Most of the incentive credits relate directly to the generation of renewable energy and have had significant success as outlined in the most recent MPSC report on PA 295 of 2008. However, also on the list are a number of provisions that, although related to energy, are not directly tied to renewable energy. These might be more effective if moved to another sector of the law that is more generally applicable to all energy generation in Michigan.

Storage Capacity

For instance, MCLA 460.1039 creates an incentive for the use of storage capacity and states in part:

> (2) (c) 1/5 renewable energy credit for each megawatt hour of electricity generated from a renewable energy system during off-peak hours, stored using advanced electric storage technology or a hydroelectric pumped storage facility, and used during peak hours. However, the number of renewable energy credits shall be calculated based on the number of megawatt hours of renewable energy used to charge the advanced electric storage technology or fill the pumped storage facility, not the number of megawatt hours actually discharged or generated by discharge from the advanced energy storage facility or pumped storage facility.

The Ludington Pump storage facility provides Michigan a valuable opportunity to use power generated during non-peak hour during peak demand periods. This reduces our need to purchase or generate power when it is most expensive. Increasing our capacity to store power can help place downward pressure on rates by reducing our need to build, operate and maintain generating facilities. The Commission should explore methods to encourage other incentives to create more

storage capacity in Michigan whether it is used for renewable or non-renewable resources.

Cogeneration

In addition, Public Act 295 of 2008 included a provision to generate advanced cleaner energy credits using industrial cogeneration facilities (MCLA 460.1003 (c) (ii)). These facilities are clearly an effort to use energy efficiently, but in some cases are strictly fossil fuel powered facilities with no other tie to renewable energy. We support the conversion of this excess heat or energy into electricity. However, industrial facilities face significant barriers to implementation of these systems under this limited provision. This incentive should be moved elsewhere in energy legislation and other barriers to its use removed or minimized.

30. How has the current law regarding the electric market structure (i.e. electric choice) dealt with renewable energy compliance? How have other states with deregulated and regulated systems addressed compliance?

All energy providers in Michigan are required to comply with the same requirements. Alternative energy suppliers are covered by MCLA 460.1023. The MPSC established Michigan Renewable Energy Certification System – (MIRECS) to issue, track, and enable retirement and trading of RECS, Advanced Cleaner Energy Credits (ACECs), and Michigan Incentive Credits (ICs). MIRECS users use the system to verify compliance with the Michigan Renewable Energy Standard.

Electric Choice Questions:

26. What impact, if any, has there been on the rates paid by Michigan residential customers as the result of Michigan's electric choice program?

On March 19, 2013, DTE Energy presented to the Senate Energy and Technology Committee regarding the residential rate increases that have been experienced in Michigan between 2008-2012.[10] In that presentation, they broke down the causes behind rate increases as follows:

> 13% - Capital Investments – These include investments and operating expenses for pollution controls, renewable energy, energy efficiency and investment in base capital. There was no further breakdown between those categories.
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> 11% - Load loss – The report did not distinguish between load loss due to customers leaving the system for other power providers or from the loss due to the economic downturn experienced by Michigan beginning in 2008.
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> 6% - Increase in fuel costs.
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> 9% - Cost or service changes that transferred costs from other rate classes to residential

[10] http://www.senate.michigan.gov/committees/files/2013-SCT-ENERGY-03-19-3-02.PDF

ratepayers.

The Commission should require all energy providers to generate similar information and perform further dissecting of the figures so that decision makers have a clearer idea of the reasons behind rate increases to Michigan energy users.