

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of the rates, terms, and)
conditions for retail customers of)
THE DETROIT EDISON COMPANY for) Case No. U-12489
to choose an alternative electric supplier.)
_____)

QUALIFICATIONS AND DIRECT TESTIMONY OF TIMOTHY VAIL ON BEHALF OF ENERGY MICHIGAN, INC.

1 Q. Please state your name and business address.

2 A. My name is Timothy E. Vail. My business address is One Manhattanville Road,
3 Purchase, New York.

4 Q. By whom are you employed and what is your present position?

5 A. I am employed by The New Power Company as Vice President in charge of Energy
6 Technology Solutions.

7 Q. Please state your educational background.

8 A. I obtained my Doctor of Jurisprudence Degree in May 1990 from the University Of
9 Houston Law Center in Houston, Texas and a Bachelor of Arts from the University of
10 Texas in 1985.

11 Q. Please describe your work experience.

12 A. I joined The New Power Co. in May 2000. I am responsible for the development,
13 advancement, and implementation of leading energy technologies targeting the residential
14 and small commercial market. Such technologies include advanced metering devices,
15 automatic load management, energy storage and distributed generation solutions.

1 Developed and deployed to New Power customer base numerous solutions utilizing
2 advanced technologies.

3 From October 1995 to July 2000 I was employed by Enron Corporation. From
4 November 1999 to July 2000 I served as Vice President, Product and Service
5 Development, ResCo. I was responsible for the development and implementation of
6 non-commodity based residential products. I established the product development
7 strategy for the company that was to become The New Power Company.

8 From May 1999 to November 1999 I served as Vice President of Risk
9 Management where I developed the world's first completely integrated Internet based
10 remote building monitoring and control system. The Facilities Management and Control
11 System provides EES risk management with real time data on customer facilities
12 worldwide.

13 From June 1997 to May 1999 I served as Vice President of Energy Information
14 Services. While in that position I created EES' energy information services business. I
15 developed and created the entire information chain from meter device to Internet
16 information delivery. I invented world's first completely self contained public network
17 wireless electricity meter. The system allowed the wireless collection of energy usage
18 data from almost any continental location. I developed an automated metering system
19 that can read any meter any place, error check the information and securely deliver the
20 data to utilities and billing systems. I guided development team to become the first
21 licensed non-utility meter data provider in the State of California. The developments and
22 results were published in numerous nationwide consumer and technical journals.

1 pursuant to RAST provision 27.2 that “billings for imbalances would be delayed two
2 months to allow for obtaining meter reads of usage for customers in all billing cycles and
3 applying the appropriate load curves.” This two-month delay in billing for actual load
4 would make it difficult or impossible to avoid imbalance situations. Use of class average
5 load profiles would discourage innovative services. The lack of a demand metering
6 option for small customers and required use of average load profiles tends to discourage
7 innovative billing and energy services including time-of-use pricing, load management,
8 etc. This difficulty occurs because the data necessary to track actual reductions in on-
9 peak usage or alteration of energy use is not available on a timely basis or at all which
10 would allow energy supply to match energy demand. The load profiling methodology
11 proposed by Detroit Edison would not produce data showing that a specific group of
12 customers, for example load served by New Power, had achieved reduced energy usage
13 which differed from other customers in that class.

14 Q. What innovative services does New Power wish to offer which would require a revised
15 billing and metering system?

16 A. While plans have not been finalized, New Power believes that residential and small
17 commercial customers could be served in the future with energy which was managed at
18 the point of use through electronic devices which alter customer usage by shutting off or
19 cycling appliances within a home or small business. Use of this technology would
20 produce reduced on peak usage which in turn should lead to reduced costs for energy,
21 transmission and perhaps distribution. Additionally, NewPower intends to offer certain
22 customers commodity pricing plans that reflect the daily price volatility of electricity
23 pricing. These plans demonstrate to consumers the need to conserve energy during peak

1 times. Customers who choose to reduce consumption will be rewarded with lower
2 energy bills. This price transparency will help reduce overall system demand during peak
3 periods. This reduced demand will benefit not only the consumer, but Detroit Edison and
4 the environment as well.

5 Q. Is technology available which could economically meter time of use data and achieve
6 energy management for small customers?

7 A. Yes. I believe metering and load management equipment is available which could
8 economically monitor time of use data and accomplish load management for small
9 customers.

10 Q. Will time of use and load management options negatively impact utility revenues?

11 A. I believe the options I have discussed could enable utilities to more efficiently use their
12 existing resources. I do not believe the small customer load management or time of use
13 pricing technology would have a negative impact on utility economics. Time of use
14 pricing and load management techniques offer customers the option to reduce their use of
15 expensive on peak power delivered by a third party supplier. To the extent the third party
16 supplier's customers reduce their use of on peak power, the third party supplier can
17 correspondingly reduce its on peak power purchases necessary to serve those customers.
18 Reduced on peak use can free up scarce utility transmission or generation resources
19 during times of potential power shortages. This also may benefit the utility as a
20 purchaser of power to supply its native load. In summary, time of use and load
21 management options alter the timing and amount of power supplied by a third party
22 supplier to its Electric Choice customers but should not have a significant impact on the
23 revenues of the Local Distribution Company.

1 Q. What are the conceptual barriers in the RAST to implementing your proposal?

2 A. The RAST load profile service offering for customers of less than 300 kW does not
3 contain a mechanism which allows an AES to gain credit when its customers are using
4 energy in a more efficient way (less energy consumed on peak) than other customers in
5 the same class. As proposed, the Detroit Edison load profile program assumes all
6 residential customers, for example, use power in the same way during on peak periods. If
7 New Power installed equipment which allowed its residential customers to cut their on
8 peak use in half and New Power reduced on peak energy deliveries accordingly, the
9 Edison load profiling system would assess New Power significant imbalance penalties for
10 inadequate on peak energy deliveries based on the assumption that the average residential
11 customer did not reduce on peak use. Basically, the Edison load profile system does not
12 use technology which allows AES entities to show that their customers use energy more
13 efficiently than the average of their class.

14 Q. What changes in the RAST are necessary to accommodate or facilitate these innovative
15 services?

16 A. One approach would be the provision of economical demand meters for residential and
17 small commercial customers which could produce time-of-use/demand data which tracks
18 reductions or alterations in customer energy use on a time-of-use basis. An alternative
19 approach, however, could be built upon the proposals offered by Energy Michigan
20 witness Polich. Mr. Polich has proposed a load profiling system which would, in effect,
21 require Detroit Edison to provide a load profile specific to each Alternate Electric
22 Supplier (AES) which specifies the hourly power deliveries to be scheduled for the next
23 day. This load profile is developed using sample metering installed, monitored and

1 maintained by the Company similar to that which the utility uses for performing cost of
2 service studies. Under the Energy Michigan proposal, the AES and its associated power
3 supplier would be in balance between supply and consumption if their power deliveries
4 match the load profile provided by Detroit Edison prior to the time of use. If New Power
5 installed time-of-use/demand management devices on its customers, Detroit Edison
6 would be required to install sampling meters which would detect the impact of load
7 management activities for New Power customers and develop load profiles based upon
8 these assumptions. At the end of each month, Detroit Edison would develop an actual
9 load profile for each AES and differences between the scheduled power deliveries
10 pursuant to profiles provided by Edison before use and actual load profile consumption
11 would be determined and billed as recommended by Mr. Polich. Differences between the
12 Edison supplied load profile and actual consumption would be billed or credited to the
13 appropriate party at \$50.00/MWh. Should the AES's actual deliveries deviate from the
14 Edison profile, the hourly imbalances, charges and credits would be at the rates contained
15 in Schedule 4 of the OATT and subtracted from the month end energy difference charge
16 or credit.

17 Q. What is your recommendation?

18 A. If Detroit Edison cannot provide economical time-of-use/demand meters for residential
19 and small commercial customers which would track load management activities on a
20 time-of-use basis, a second best alternative is a load profile system which would provide
21 profiles before the time of use which match the AES's profile of use as determined by
22 Edison sampling meters. This profile would take into account alterations in customer use
23 achieved by the AES and end user which in turn would enable the AES to reduce costs of

1 energy, transmission capacity and ultimately system use charges for long term reductions
2 of customer demand.

3 Q. What are your recommendations regarding billing issues?

4 A. The goal of New Power is to market economical and innovative energy options to
5 residential and small commercial customers. In order to achieve favorable economics,
6 New Power will depend heavily on electronic and voice methods to interact with the
7 customer and the utility company. The economics of service to such small customers can
8 be greatly enhanced if it is clear that all business transactions with these customers may
9 be accomplished through electronic or voice means.

10 Q. Are there revisions to the RAST which could facilitate this goal?

11 A. Yes. RAST Section 13 which provides for electronic interaction between the AES and
12 the Company should be expanded and clarified to assure that the AES may conduct all
13 business with its customers, if approved by the customer, on an electronic basis including
14 notices, contracts, credit checks and enrollment. The electronic basis would include
15 voice confirmation. Also, the RAST should be revised to provide that valid contracts
16 need not be written but may be verified by the customer electronically with an
17 appropriate methodology.

18 Q. Are there other changes to the RAST which would be helpful?

19 A. Yes. We have found that customers prefer to receive one bill for energy service as
20 opposed to bills from the AES for energy and from the Company for distribution service.
21 We believe the complete billing option offered by Detroit Edison with a fee structure
22 described in Section 16 would not be economical. An economical alternative would be
23 for the customer to request that Edison billings for distribution service be sent to the AES

1 for payment. The AES then would pay the customer distribution charge and bill the
2 customer directly for both energy and distribution, thus providing a single billing within
3 the current legal framework. RAST Section 6 should be revised to include a new
4 subsection specifying this option.

5 Q. Can you summarize your conclusions regarding billing issues?

6 A. Yes. In summary, I believe that the prospects for economical Electric Choice service to
7 residential and small commercial customers can be greatly enhanced by allowing the
8 AES to interface with such customers on an electronic or voice basis accompanied by
9 appropriate consumer protections. Costs of billing can be reduced and customer
10 confusion reduced as well by ensuring that customers may designate their AES as an
11 agent to pay Electric Choice distribution charges, thus facilitating provision of a single
12 bill to the customer for all Electric Choice services.

13 Q. Does this conclude your testimony?

14 A. Yes.