

STATE OF ILLINOIS  
BEFORE THE ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISION COMPANY, §  
Petition to approve an Advanced Metering §  
Infrastructure Pilot Program and associated tariffs §

Docket No. 09-0263

*Admi Hcd*  
*8/20/09*  
*OKS*

METRA/CTA JOINT EXHIBIT 1.0

DIRECT TESTIMONY OF  
JAMES G. BACHMAN  
ON BEHALF OF  
THE NORTHEAST ILLINOIS COMMUNTER RAILROAD CORPORATION, D/B/A METRA  
AND THE CHICAGO TRANSIT AUTHORITY

**OFFICIAL FILE**

I.C.C. DOCKET NO. 09-0263  
Metra/CTA Exhibit No. 1.0  
Witness \_\_\_\_\_  
Date 8-20-09 Reporter AS

DATED: 24 JULY 2009

1 **Direct Testimony of James G. Bachman**  
2 **On Behalf of**  
3 **Northeast Illinois Regional Commuter Railroad Corporation, d/b/a Metra and**  
4 **Chicago Transit Authority**  
5  
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7 **Q.** Please state your name, title, employer and business address.

8 **A.** James G. Bachman, Partner, SPI Energy Group, 2621 Montega Drive, Springfield,  
9 Illinois 62704

10 **Q.** On whose behalf are you testifying in this proceeding?

11 **A.** I am testifying on behalf of the Northeast Illinois Regional Commuter Railroad  
12 Corporation d/b/a Metra ("Metra") and the Chicago Transit Authority ("CTA").

13 **Q.** Please describe your professional experience.

14 **A.** I have worked in the electric and natural gas industry for thirty-nine years. For the last  
15 thirteen years I have been a Partner in SPI Energy Group. SPI Energy Group is an electric and  
16 natural gas consulting firm. We assist clients (retail end users of electricity and natural gas) in  
17 understanding and purchasing energy from the electric and natural gas marketplaces as end users.  
18 In addition, SPI Energy Group has assisted clients with their regulatory issues and requirements  
19 before the Illinois Commerce Commission. For the nineteen years prior to my work for SPI  
20 Energy Group, I was employed by Central Illinois Public Service Company ("CIPS") in several  
21 administrative and executive positions including Vice-President of Marketing, Vice-President of  
22 Corporate Planning and Manager of the Rates and Regulatory Department. I had responsibility  
23 for cost of service studies, rate design and rate policy for CIPS from 1980 through 1992. Prior to  
24 my employment at CIPS, I held several staff positions with Wisconsin Electric Power Company  
25 where I started my electric and natural gas career in 1970.

26 Q. What is your educational background?

27 A. I received a Bachelor of Arts degree in Economics from the University of Wisconsin-  
28 Madison in 1970. I received a Masters of Business Administration degree from the University of  
29 Illinois-Champaign/Urbana in 1990.

30 Q. Have you previously testified before the Illinois Commerce Commission (“ICC”) and the  
31 Federal Energy Regulatory Commission (“FERC”)?

32 A. Yes, I testified before the ICC and FERC in every CIPS rate case docket from 1977  
33 through 1992 before the two regulatory agencies. I also testified for CTA and Metra in ComEd’s  
34 last rate case, ICC Docket No. 07-0566.

35 Q. What is the purpose of your testimony in this proceeding?

36 A. I provide a description of the two customers that make up the Railroad Class of Service. I  
37 provide a general view from the Railroad Class’ perspective of the ComEd Advanced Metering  
38 Infrastructure (“AMI”) Pilot Program. I also address the proposed Rider AMP cost recovery  
39 mechanism vis-à-vis the Railroad Class of Service.

40 Q. Please give us a brief description of Metra and the CTA.

41 A. The CTA and Metra are two of ComEd’s largest customers. They receive delivery  
42 services from ComEd at several different metering points under several different ComEd tariffs.  
43 The CTA serves the City of Chicago and 40 surrounding suburbs with electric rapid transit cars  
44 and bus service. It has been described as the second largest public transportation system in  
45 North America. This testimony focuses only on the CTA’s electric rapid transit service. Metra’s  
46 train service system serves 230 stations in the Counties of Cook, DuPage, Lake, Will, McHenry  
47 and Kane. Metra operates the second largest commuter rail system in the country.

48           The CTA’s rapid transit rail car system and Metra’s electric train service system make up  
49 the customers in ComEd’s Railroad Delivery Class of Service. Electric service to the rapid  
50 transit and electric train service is commonly called “traction power.” CTA and Metra take  
51 delivery of power and energy for traction power from ComEd at CTA or Metra owned and  
52 operated traction power substations. At these traction power substations, the alternating current  
53 power received from the ComEd delivery system is transformed to direct current power that is  
54 sent out via the “third rail” to the CTA rapid transit cars and via catenary wires to the electric  
55 cars operating in Metra’s electric train service district. It is my understanding that the CTA has  
56 over 1,190 rapid transit cars that operate over eight routes serving 144 passenger stations. Metra  
57 has over 475 miles of track system with an electric train district that runs from downtown  
58 Chicago to the south suburbs. As the electric rail cars move along the CTA and Metra right-of-  
59 way, the traction substation power supply source for the train shifts from one traction power  
60 substation to the next. The traction power is delivered by ComEd at 12.5kV AC to all of the  
61 points of supply located at the 61 CTA traction power substations and the 10 Metra traction  
62 power substations. Remote AMR meters installed at each substation measure the power. Each  
63 traction power substation is fed by at least two separate ComEd circuits. Each circuit is  
64 separately metered by ComEd with bi-directional meters. The metering information is  
65 instantaneously sent to the CTA and Metra dispatchers where it is continually monitored. Both  
66 the CTA and Metra maintain their own SCADA systems for traction power.

67           The CTA and ComEd have a contract that was entered into in 1958, and amended in  
68 1998, relating to the delivery of power and energy, construction and other matters. Metra and  
69 ComEd entered into a contract in 1986, governing all aspects of the parties relationship  
70 concerning Metra’s electric train district.

71 Q. What is the Railroad Class' view of the ComEd proposed AMI Pilot Program which is  
72 the subject of this docket?

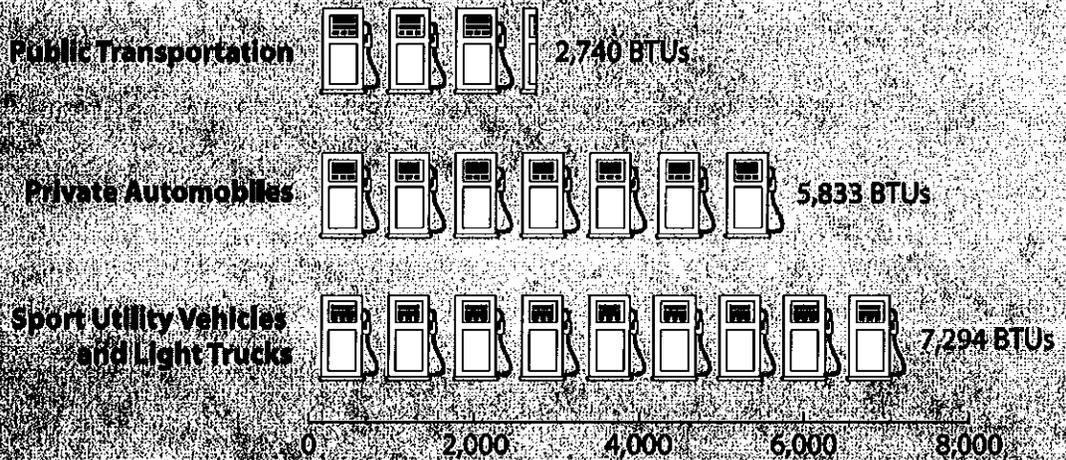
73 A. CTA and Metra generally supportive of the over-all goals and objectives of the AMI Pilot  
74 Program. As Dr. Hemphill explains in ComEd Exhibit 1.0 lines 198 through 203, contributions  
75 "to improved system performance, customer empowerment, environmental improvement, and  
76 reduced and better managed customer energy costs" are policies that are recognized and should  
77 be encouraged. In fact, as is also stated in Exhibit 1.0, the Commission recognized a common  
78 goal that ComEd and the Railroad Class have very much in common, " 'Some of these  
79 environmental benefits are possible through ... fewer vehicles on the road.' " (Lines 258-259)

80 Q. Why are the environmental benefits important to the CTA and Metra?

81 A. In the two most recent ComEd general rate case dockets, the CTA and Metra have  
82 stressed the importance of environmental benefits that are achieved when the Illinois Commerce  
83 Commission rightly recognizes the contribution that these governmental, mass transit agencies  
84 make to the Chicago region.

85 As the CTA and Metra witnesses have testified previously, mass public transit is an important  
86 tool for not only conservation of energy but also provides positive economic impacts and environmental  
87 benefits. The CTA cited a study by Shapiro, Hassett, and Arnold, "Conserving Energy and Preserving the  
88 Environment: the Role of Public Transportation," Americans use more energy for transportation (43  
89 percent) than for any other activity.

## PUBLIC TRANSPORTATION SAVES ENERGY



For every passenger mile traveled, public transportation uses about one-half the fuel of private automobiles, sports utility vehicles (SUVs) and light trucks.

Source: Conserving Energy and Preserving the Environment: The Role of Public Transportation

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Because public transit is a more efficient method for transporting people than private automobiles, particularly in dense urban areas, it uses only half as much energy per passenger mile. Each fully loaded train can take hundreds of cars off the road with public transportation producing only half as much emissions per passenger mile as trips by automobile.

These findings are further supported by the 2007 Urban Mobility Report, issued September 2007, that was presented by Metra's witness in Docket No. 07-0566. The Report concluded that Metra, the CTA and PACE helped Chicago travelers avoid losing an additional 39.6 million ours and \$779.4 million to traffic delays in 2005.

100 **Q.** What benefits may ComEd achieve by the AMI pilot program?

101 **A.** Much information regarding the residential and small commercial customer classes  
102 should come from this AMI Pilot Program. The benefits and costs accruing to these two  
103 customer groups should be properly measured by the ComEd proposed AMI Pilot Program.

104 **Q.** Please address Rider AMP cost recovery.

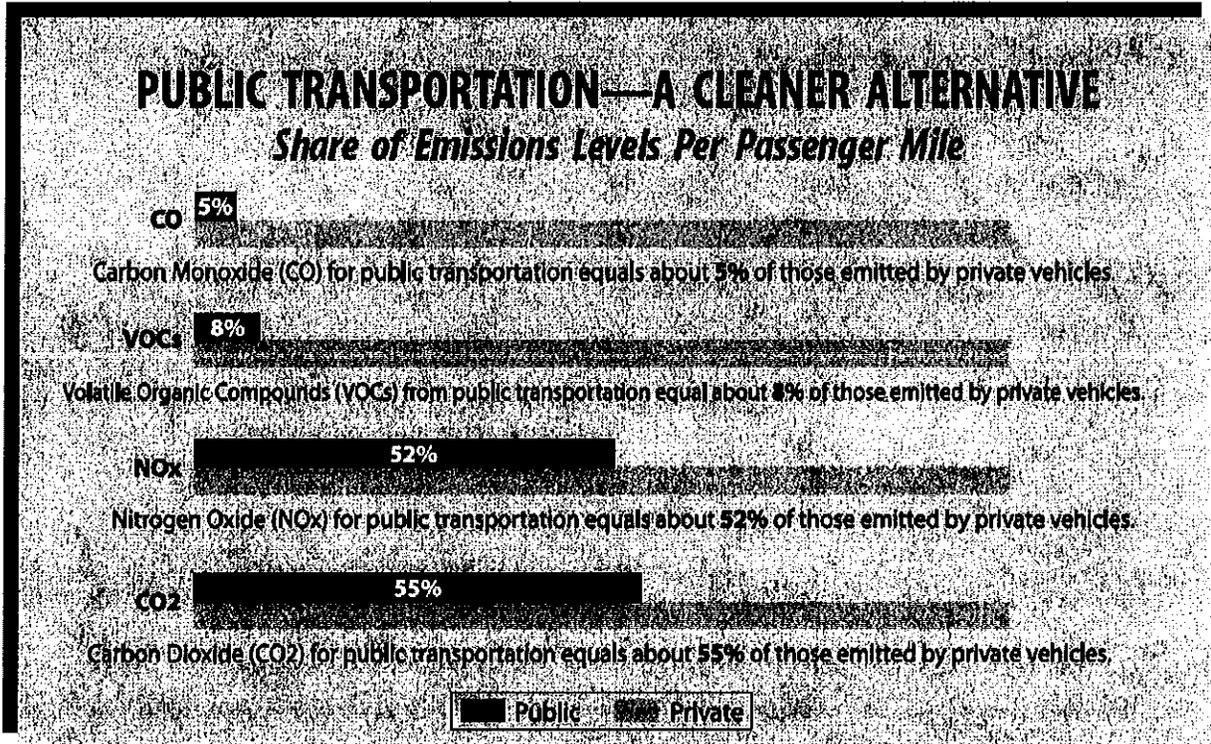
105 **A.** Rider AMP cost recovery is projected to be spread across all customer delivery classes,  
106 regardless of the cost causation and potential benefits of the AMI Pilot Program. This Program is  
107 identified as primarily a residential customer and secondarily a small commercial customer  
108 advanced metering pilot. The customers that will obtain the benefits from the increased  
109 knowledge gained from the Program should bear the costs of the Program through the operation  
110 of Rider AMP.

111 **Q.** How does the lack of cost causation impact the Railroad Class?

112 **A.** The Railroad Class has been paying for advanced metering for many years as well as the  
113 advanced communication system to provide the metering information from each railroad class  
114 meter to the CTA or Metra dispatch system. As I stated earlier, both the CTA and Metra have  
115 invested their own funds to build and operate their own SCADA systems for traction power.  
116 There is no cost causation rational to charge the Railroad Class for an AMI Pilot Program from  
117 which the Class will not gain any benefit. In addition, burdening the Railroad Class with costs  
118 associated with the AMI Pilot Program runs counter to the shared goal of fewer vehicles on the  
119 road, since higher electric costs imposed on the Railroad Class may mean higher prices for the  
120 railroad class customers or less service options for those customers. It also may harm the

121 environment, since mass transit provides a more environmental friendly mode of transportation.

122 A chart in the Shapiro, Hassett, and Arnold study shows this environmental impact:



123

124 Q. Has the Commission expressed concern about the charges to the Railroad Class and the  
125 impact on the public?

126 A. Yes. In the final order in Docket No. -7-0566, the Commission wrote at Page 223:

127 We agree with Metra and the CTA that the proposed rates for the railroad class ignore  
128 this recent directive from the Commission. In this case, ComEd originally proposed rates  
129 for the railroad class that were more than five times that of the general increase. Even  
130 under its mitigation plan, the proposed rates for the railroad class are three times higher  
131 than the general increase. Thus the ECOSS, which the Commission has found to be  
132 inaccurate in several respects relevant to the railroad class, directly conflicts with our  
133 finding in Docket 05-0597 that minimizing rate shock to railroad customers is in the  
134 public interest.

135  
136 Our commitment to a policy of encouraging conservation, efficient energy use and the  
137 environmental benefits of affordable public transportation has not lessened since the July  
138 26, 2006 Final Order in Docket 05-0597. We find that the modified rate proposal fails to  
139 comport with our explicit direction in the last case to avoid rate shock to the railroad

140 class. Docket 05-0597, Order at 190. We direct ComEd to take this policy directive into  
141 account in preparing for the next rate case.  
142

143 Under ComEd's proposal in this Docket, the goals set by the Commission for the  
144 Railroad Class in Docket No. 07-0566 will be partially undone if the Commission abandons both  
145 its cost-causation principles and the commitment to affordable public transportation.

146 **Q.** Do you recommend that the Commission revise Rider AMP to reflect cost causation in  
147 the cost recovery mechanism?

148 **A.** Yes, the Commission should revise the Rider AMP calculation to reflect cost causation  
149 and potential benefit realization to reflect the cost recovery limited to the customer classes  
150 impacted by the results of the AMI Pilot Program. In addition, the Commission should recognize  
151 the unique relationship of the common goal shared with the Railroad Class.

152 **Q.** Does this conclude your testimony?

153 **A.** Yes, it does.