

Meeting Notes #3

Cost Allocation Working Group

Thursday, April 3, 2003

9:30 a.m. - 3:15 p.m.

1. Collection of new load data by single utility: Initial discussion

Members of the working group discussed various approaches to setting the appropriate sample size for load data research. The group found the discussion in Chapter 4 (“Sample Design and Selection”) of the AEIC Load Research Manual, 2nd Ed., a very useful introduction to the topic (purchasing of the text was recommended for self-study).

In the opening discussion, kicked off by CNPI and followed by Hamilton, it was pointed out that U.S. federal legislation (PURPA) mandated, until 1992, use of a sample size sufficient to ensure the load data results gathered were within an accuracy of +/- 10% at a 90% confidence level at the system and class peak time for all major rate classes. The subsequent group discussion mentioned:

- some recent Canadian cost allocation studies continue to follow this standard
- concern was expressed that imposing this requirement on the smallest utilities might force them to spend an excessive amount, on a per customer basis, to install the necessary sampling meters; however, others were concerned that all utilities be treated equal
- the group wondered why the above U.S. federal standard was lifted in 1992.

Staff mentioned that some texts refer to “rule of thumb” approach, under which an acceptable number of sample points is agreed upon beforehand. However, no group member present could cite an example of a specific rule of thumb that had been used in a prior cost allocation study. It was also questioned whether a simple rule of thumb could prove sufficiently reliable in all cases. It was suggested, further, that perhaps someone could do some statistical analysis to create a rule of thumb that all could follow.

The use of stratified sampling was also discussed. It has the advantage of allowing fewer samples to be collected, while still maintaining highly reliable results. While most group members appreciated its advantages, there were strong objections to mandating uniform strata across the Province.

The groups mentioned it would be important to account for missing data by installing more sample meters upfront, thus providing some cushion. Also, the efforts to get sufficient customers in each class to agree to install a sample meter should be recognized.

Decision: CNPI and Toronto were asked to prepare, for subsequent discussion, a recommended approach to determining sample size for new load data collection.

2. Sharing of LDC load data: Initial Discussion

Group members found the general discussion of this topic in Chapter 10 (“Load Data Transfer”) of AEIC Load Research Manual, 2nd Ed., helpful. It suggested there that factors such as weather and appliance saturation should be considered before proceeding with transfer of load data between utilities.

The theoretical discussion, kicked off by Roger White (and followed up by Jim Richardson of the Upper Canada Alliance, London, Brantford, Toronto and Paula Zarnett), explained sharing of load data could occur at various levels (e.g. class, cluster or individual customer).

The discussion indicated that a group of 7 GTA utilities had started work on a co-ordinated proposal (to the best of the group’s knowledge, they were the only utilities to do so to date). That plan calls for each utility to contribute some load data to a common pool. The number of utilities in the group was deliberately limited to maximize similarity. This data may be available for sharing.

Among the members present in this meeting, no other utility had extensive current load data available for sharing on commercial terms.

As the discussion progressed, other utilities indicated they might explore sharing or joint development of load data. It was acknowledged that overall costs across the Province could be lowered if some type of co-ordinated approach were taken to data collection; however, it was unclear who could lead this [editor’s note: see next presentation, where Hydro One indicated willing to work with other LDCs to update/confirm existing provincial load curves].

Tentative Decision: - Two members of the group (Roger White, and Gary Parent of Oakville Hydro) are going to prepare, for subsequent discussion and adoption, guidelines on when sharing of load data is reasonable. (This document was also to try to include suggestions as to what strata should be created, as the underlying issues were considered similar.)

3. Development of utility-specific load profiles from provincial data

A presentation by Hydro One (Stan But, Manager Forecasting) explained that the load shapes developed by the former Ontario Hydro are available for free from the IMO. Hydro One staff indicated that they possess the expertise to assist in applying this pre-existing Ontario data to create a specific load profile for a given utility. This approach held out the potential for significantly lowering costs of developing individual utility load profiles.

It was explained additional information would have to be gathered by the local utility to guide how the pre-existing Ontario load shapes should be adjusted to their circumstances.

Questions were asked about the age of the original load data that formed the basis of the IMO-owned typical Ontario load curves. It was indicated that the former Ontario Hydro had sampled load data for several decades. The most recent load shape analysis was believed to have taken place in the early 1990's (while rates were still bundled).

When asked if historical load data would remain valid, it was mentioned:

- load profiles tend to remain stable
- but there might be some changes over time, for example due to adoption of more energy efficient appliances
- it would be helpful to work with *other utilities and obtain further current load data*
- Hydro One itself is currently studying how it could use the residential interval database from its sub, Hydro One Brampton, to update/confirm the existing provincial load shapes.

Tentative Decision: - Hydro One staff will work with utilities that may be interested in this approach, to arrive at suggested procedures on how provincial load shapes could be adjusted to suit the present circumstances of a specific utility.

4. Other

- A copy of a 1979 Ontario Hydro document entitled "Load Research For Cost of Service Studies" (173 pages) was handed out for home study.

Attendance

Brantford Power - Heather Wyatt
Canadian Niagara Power Inc. - Doug Bradbury
Chatham-Kent Hydro - Jim Hogan
Guelph Hydro - Jim Fallis
Hamilton Hydro - Cameron McKenzie, Terry Karp
Hydro One - Mike Roger, Stanley But
Hydro One Brampton - Scott Miller
London Hydro - Ken Walsh; Dave Williams
Oakville - Gary Parent
Ottawa Hydro - Lynne Anderson
Toronto Hydro - Anthony Lam
Thunder Bay Hydro - Cynthia Domjancic
Veridian - Laurie Stickwood

Econalysis - Bill Harper
ECMI - Roger White, Andy Bateman
EDA - Maurice Tucci; John Wong
RCS - Mike McLead; Peter Ioannou
Upper Canada Energy Alliance - Jim Richardson
Bob Mason
Chris Amos
Barker, Dunn & Rossi - Paula Zarnett, Neill Winger

Board Staff:
John Vrantsidis
Neil Yeung