

Institutional Barrier #15/9  
Who funds? Who Implements?  
Different Players from Generation to Distribution to End Use.

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Problem Statement

Non-Construction Alternatives (NCAs) being considered to avoid new transmission investments may also provide benefits to the generation or distribution functions. There is a lack of current processes and mechanisms to evaluate the NCAs in a “total system” context where all NCA benefits are recognized. There are also few examples of programs or projects where multiple entities that benefit have contributed to the cost of implementing NCAs.

The Non-Construction Alternatives Round Table is focusing on cost effective alternatives to reinforcing or expanding BPA’s transmission system, so the BPA Transmission Business Line (TBL) and its customers will be beneficiaries. However, BPA’s Power Business Line (PBL) only provides generation to a portion of the TBL’s customers and BPA does not provide distribution services. The TBL needs to partner with the PBL and other generation providers and with distribution utilities to encourage the deployment of cost effective NCAs and maximize the benefits to end use consumers.

Current Situation

Transmission systems throughout North America have come under increasing pressure as end use consumption and grid utilization have increased substantially in the last 20 years with comparatively little investment in new transmission infrastructure. The result is a grid under stress as evidenced by the widespread outages in the West during the summer of 1996 and the recent blackout in the East/Midwest.

There is a growing awareness of the need to reinforce transmission systems across North America including the Pacific Northwest. However, economic and environmental factors make it necessary and appropriate to consider NCAs such as energy efficiency, load management and distributed generation, in addition to more traditional “wires” solutions.

Energy efficiency programs have been successfully implemented in the Northwest for many years. After a period of aggressive implementation in the 1980s and early 1990s, these efforts were lessened in the late 1990s, but have accelerated again following the energy crisis of 2000-2001.

Load management programs (reducing energy consumption during peak periods or shifting it to off-peak periods) have historically received less attention in the hydro-based, energy-constrained Northwest than in other regions. However, as the Northwest’s

hydro system becomes increasingly constrained and spot market prices become increasingly volatile, there is a growing interest in programs that can reduce peak utilization. The value of load management programs was amply demonstrated during the energy crisis of 2000 and 2001.

Environmentally acceptable distributed generation technologies are becoming more cost effective and reliable. With the passage of net-metering laws in many states, distributed generation may be poised for rapid growth.

Different NCAs may provide different benefits for generation, transmission and distribution providers as shown by the examples included in the attachment to this action plan template. However, all of the examples indicate there are at least some generation and/or distribution benefits in addition to the benefits to the transmission system. But, at present, mechanisms for looking at the full range of NCA benefits are not available.

### Goal

Create an environment in which all benefits of NCA s are recognized and develop mechanisms so that all beneficiaries contribute to the cost of implementing NCAs.

### Tasks

1. Understand current NCA drivers and delivery mechanisms.

Task: Draft a short discussion paper (5 pages max?) describing current programs and funding sources for energy efficiency, load management, distributed generation and other NCAs and exploring partnering approaches for the TBL. This paper will include discussion of successful NCA partnerships in the Northwest and other regions.

Who: Who Benefits subcommittee

Due Date: October 2003

Dollars: Internal costs only

Partners: Round Table

2. Create broader awareness of the multiple benefits of NCAs.

Task: Share the Round Table's work with the Northwest Power Planning Council, the Northwest Energy Efficiency Alliance and other appropriate forums. Encourage these entities to evaluate NCAs based on their benefits to generation, transmission and distribution.

Who: BPA TBL and Round Table

Due Date: Ongoing

Dollars: Internal costs and limited travel.

Partners: NPPC, NEEA, NCA advocacy groups

3. Create broader awareness of NCAs in transmission planning processes.

Task: Share the Round Table's work with the Northwest Power Pool Transmission Planning Committee, Western Electricity Coordinating Council, Seams Steering Group- Western Interconnection and other appropriate transmission planning forums. Encourage these entities to include NCAs in their plans on an equal footing with traditional transmission reinforcements and expansion projects.

Who: BPA TBL and Round Table

Due Date: Ongoing

Dollars: Internal costs and limited travel.

Partners: NWPP, WECC, SSG-WI, NCA advocacy groups

4. Create real world examples of implementing NCAs in partnership with generators and distribution utilities.

Task: Form working groups including the TBL, generators and distribution utilities affected by the Olympic Peninsula and Lower Valley projects with the goals of identifying, co-funding and documenting implementation of cost effective NCAs.

Who: BPA TBL and Round Table

Due Date: Working groups formed by December 2003. Schedule to be determined by working groups.

Dollars: Internal costs and limited travel to initiate. Implementation costs depend on measures developed by working groups.

Partners: Distribution utilities, BPA PBL and other generation providers to distribution utilities.