

ACCESS

T B L M A R K E T I N G B I - M O N T H L Y

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TBL increases security

After the September 11 terrorist attack on New York City's World Trade Center and The Pentagon in Washington, D.C., government agencies clicked into a level of

BPA FIRST PUT HEIGHTENED SECURITY MEASURES INTO EFFECT DURING Y2K. IN FACT, THAT'S WHY THE AGENCY WAS ABLE TO HEIGHTEN SECURITY SO FAST AFTER THE RECENT TERRORIST ATTACKS.

security higher than it had been in decades. Whether or not the nation's electric utility infrastructure is a potential terrorist target, the Bonneville Power Administration believes that it

has the responsibility to set a level of security that ensures its transmission system is both safe and reliable.

Yet, many of the security measures taken after the September 11 attack were already in place and some were used to guard against potential Y2K events.

"With a responsibility for nearly 80 percent of the region's transmission system, our grid is the lifeblood of the Pacific Northwest," said Elpidio Jeter, security specialist at the Transmission Business Line. "I don't think it would be overstating if I said that many utilities depend on us to maintain that backbone, so it is incumbent on us to ensure that it remains safe."

BPA first put heightened security measures into effect during Y2K. In fact, Jeter said, that's why the agency was able to heighten security so fast after the recent terrorist attacks.

The quick response is also due to work BPA has done with the Inter-agency Forum for Infrastructure Protection (IFIP), which it helped create in 1998. The IFIP is a national group with a membership that



The level of security increased at all Bonneville Power Administration facilities after the Sept. 11 terrorist attack.

includes, among others, the Bureau of Reclamation, the FBI, the Tennessee Valley Authority, the U.S. Army Corps of Engineers and Sandia Laboratories. It's responsibility is to assess risk and develop measures to protect the nation's electrical and hydropower infrastructure.

BPA has not been threatened, Jeter said, but the Sept. 11 attack has caused BPA to push security a step further. It began an employee awareness campaign designed to make employees more aware of potential threats. Rules were issued to guide employees on what to do when encountering suspicious situations.

"For example, if an unfamiliar vehicle is observed parked near a substation out in the field the



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TBL moves toward electronic scheduling

Customers and transmission owners are transitioning from fax and phone technology for scheduling transmission service to full electronic scheduling, but that transition won't be complete until as late as June 2002. Until then, the Transmission Business Line has implemented a Customer Web Interface (CWI) for those customers who either must or who choose to schedule electronically.

With the tariff and rate change on October 1, the TBL unbundled a number of ancillary services and scheduling those products is sometimes too labor intensive to rely on the old methods – fax and phone – to complete the scheduling transaction, especially for hourly closings, said Mark Reynolds, TBL Marketing Projects Delivery Group Manager.

Customers must use the CWI to submit ancillary services requests. A business practice on the use of CWI is posted on the TBL's OASIS Website, at <http://www.transmission.bpa.gov/OASIS/BPAT>. Customers or their Scheduling Agents are expected to submit ancillary services 24/7.

Like buying goods on the Internet, electronic scheduling transfers much of the work to the customer.

"CWI allows us to transition from the TBL doing all the data entry to the customer and that lowers our transaction costs," Reynolds said. "We can't continue to add people to input these complex scheduling requests by hand. Customers already have to make the data entry once and they may as well do it on-line."

The customer is also responsible for validating data and Reynolds believes that will result in additional discipline and accuracy in the marketplace.

The CWI is simple. It allows any pre-qualified customer access over a secured line to the Internet site using Microsoft Internet Explorer™. A user's company must first give them financial authority to make the transaction, but once the authority is established, he/she can access the CWI to look at data or to complete a transmission scheduling transaction in accounts pertinent to the customer. All transactions are validated with the customer's contracts and agreements with the TBL. It's hacker-proof, according to Reynolds, because it uses bilateral security, the same as is used when making a personal purchase over the Internet.

"Within fractions of a second, their scheduling is done," Reynolds said. "There is no waiting for a telephone busy signal and no mistakes on our part."

The system supporting the CWI is both secure and robust, with redundant Internet Access Points – one through

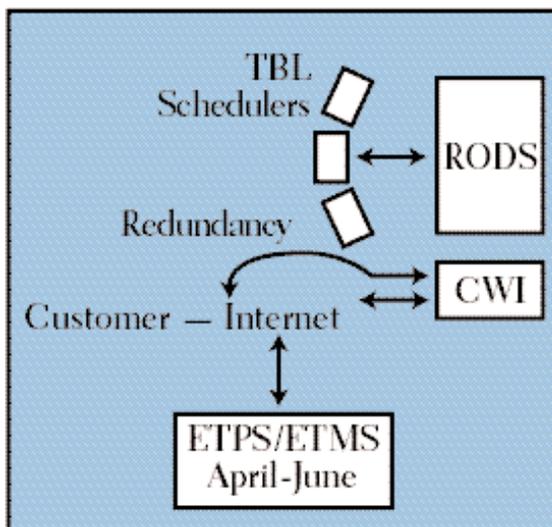
Spokane and one through Vancouver – to ensure that if one line is down, the other still provides the service. In addition, all the BPA hardware in the system is redundant.

"The idea is to make the transaction better than a phone discussion," Reynolds said. "If the customer only has one phone line and one computer, then they are the weakest link in the process."

While the CWI works well for small and moderate sized utilities or marketers, it does not provide all the services a very large customer may need. The TBL is working with Knowmatic™ and Microsoft™ to develop an adaptation to the scheduling system that will help customers with complex scheduling requirements.

Much of the work, however, has been done by a TBL design team led by Todd Kochheiser, Project Manager, and Keith Daila, along with integration team member Flor Francisco and Tara Exe, Hal Hack and the Prescheduling and Realtime Transmission Scheduling Groups of the rollout and transitioning team.

In the future, customers and the TBL won't need the CWI. All transactions, including E-tags, will be done on the Internet through the Scheduling



Web Interface (SWI), which the TBL and its contractor SoftSmiths are developing for rollout between March and June 2002. However, regardless of whether the SWI is in place at the time, all schedules will have to be correctly E-tagged by March 3, according to North American Electric Reliability Council and Western Systems Coordinating Council requirements.

TBL increases security

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employee is instructed to report that to authorities,” Jeter said. “In fact, they now are to report anything that arouses suspicion. If they see a suspicious suitcase, bag or object, they are to report it.”

Field employees are often located away from the hub of activity. Yet they, too, have been provided with comprehensive guidance to assure safe operations and are encouraged to rely upon local law enforcement for assistance should the need arise.

“For years, BPA has emphasized common sense security and that’s all the more important, given our current situation,” Jeter said. “Now employees are required to

engage more in an interactive effort to assure the security of their work environment, similar to the concept of community policing.”

Closer to headquarters and the centers for control of the federal transmission system, BPA has increased security by setting up more security stations at the perimeters of its buildings to check visitors and delivery vehicles. In addition, it has brought on more security officers, along with more foot and vehicle patrols.

One program BPA has had for years is its Crime Witness program that offers incentives for information leading to the arrest of vandals, thieves and now terrorists. Recently, the Corps of Engineers and Bureau of Reclamation have joined the program

and it is now a nation-wide effort. Collectively, the agencies fund the Crime Hotline (1-800-437-2744) and its reward pool. The program has had a direct affect on destructive acts and saves about \$500,000 each year, Jeter said.

Heightened security is not a thing of the moment, Jeter said. It will continue.

“We never know when the transmission system could be targeted, whether by terrorists or even by opportunists or copy cats that take advantage of the recent terrorist activities,” he said. “The essence of all we do is to take reasonable and responsible actions to ensure our systems remain as safe and secure as we can make them. Employees are simply more vigilant and aware of their environment.”

Contract changes important to transmission scheduling

The move October 1 to a new transmission open access tariff and rates required the Transmission Business Line to make changes to its business practices, as well as its billing and scheduling systems. It also required customers and the TBL to renew or modify all transmission contracts and that created a challenge for the transmission agency’s contracts group to keep up with the changes.

Of the nearly 600 transactions the TBL contracts department entered into its transmission contract database in fiscal year 2001 to prepare for the new 2002-03 tariff, 310 were new or modified transmission agreements and 55 were terminations of agreements. Although customers, especially those with Point to Point service contracts, often modify their agreements, the changes made to accommodate the new tariff represented a significant increase in activity. Many of the changes were due to the new products and services offered in the Oct. 1 tariff.

The accuracy and timeliness of making the changes is important because each change made to an agreement also calls for changes to the TBL’s scheduling system.

“Anytime there is significant movement at any point in the contract process, we must notify the scheduling desk,” said Fran Gebhardt, TBL contracts manager. “The desk maintains the Available Transmission Capability and they need to know the service and the amount for each contract. Among other things, the ATC, which is driven by contracts and schedules, affects constrained paths and planned outages.”

There were many factors complicating the process this year – new systems, software changes to the contract database, the interface of those systems with the new scheduling systems and new service agreement templates for ancillary services – but this year the TBL also had to develop new business practices at the same time it was modifying contracts.

“Not all of the detail about how to implement transmission services was written into the tariff, so a lot of our internal work, while we were also doing contracts, had to do with writing business practices that are in concert with the tariff, the rates and the settlement agreement,” Gebhardt said.

The bottom line, she said, is that the transmission contracts database must be up to date all of the time or it could result in scheduling not taking action on a request. Not only would a customer suffer, so would the TBL.

“We are constantly looking at the quality of our data,” Gebhardt said. “Once a week we look at each contract that is not yet final.”

She said that few Network Transmission contracts are pending because most customers needed to have those in place by October 1. Still, there are some issues with several NT customers. However, there are quite a few PTP contracts pending. Most of those have to do with generator integration and are awaiting studies.

RTO West draft filing released for review

RTO West filing utilities released October 31, a draft filing for public review and comment. They will submit the filing to the Federal Energy Regulatory Commission on December 1.

December 1 is the deadline for a response to FERC's April 26 order which called for an RTO status report on:

- Resolution of seams issues (how RTO West will address technical and business issues with neighboring RTOs),
- Plans for participation in RTO West by Canadian entities;
- A framework for formation of a West-wide RTO;
- A timetable for achieving a West-wide RTO end state.

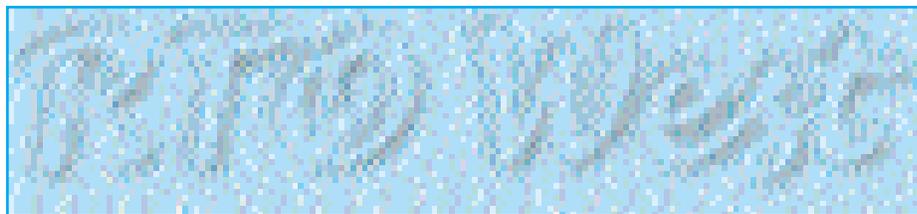
The goal is to create three fully operational RTOs in the West (RTO West, WestConnect, and the California ISO) while working together to create a single market for transmission services in the West.

At press time, the draft status report addressed each of the key areas, but more notably included a vision for the West which reflects a framework for a seamless West-wide market as it's proposed approach to the formation of a West-wide RTO. The goal is to allow three RTOs in the West (RTO West, WestConnect, and the California ISO) to become fully operational, while working together to create a

single market for transmission services in the West. The status report indicates the belief that RTO formation, "is achievable in the near term if three RTOs form the initial organizational base...In the future it may be possible to consolidate the initial three RTOs into fewer RTOs." The report is available on the RTO West web site.

FERC CHAIR PAT WOOD III SAID FERC PLANS TO GIVE MORE FLEXIBILITY TO RTOs FORMING AROUND THE COUNTRY AS LONG AS THEY MAKE PROGRESS TOWARD FUNCTIONAL MARKETS.

The draft filing was a major topic of discussion, among other items, at a recent Regional Representatives Group meeting. FERC representative Mike Coleman attended the Nov. 9 RRG and shared further insights on FERC's visions for RTO development, particularly in the West. Coleman indicated that since early September, FERC has been working to understand where each RTO under development is at, in terms of progress, and develop a game plan for assuring that progress.



FERC Chair Pat Wood III has backed off his Sept. 26 announcement of a vision for four large RTOs across the country. He said FERC plans to give more flexibility to RTOs forming around the country as long as they

make progress toward functional markets. FERC released Nov. 7 its goals for the next phase in implementing RTOs. FERC said it intends to go forward on two parallel tracks. The first addresses geographic scope and governance issues. The second is to resolve transmission tariff and market design rulemaking for public utilities, including RTOs. The process for activities will also include more state involvement and coordination in

THE RTO WEST PROCESS IS PUBLIC AND ONGOING. THE BEST WAY TO KEEP UP AND TO VIEW THE FILING DOCUMENTS IS TO LOG ONTO THE INTERNET AND POINT YOUR BROWSER TO WWW.RTOWEST.ORG.

RTO activities. FERC did not, however, release details of how it will encourage that involvement. For more information on the Nov. 7 Order, see the FERC web site at www.ferc.gov.

The RTO West filing Utilities are Avista Corp., the Bonneville Power Administration, BC Hydro & Power Authority, Idaho Power Co., the Montana Power Co., PacifiCorp, Portland General Electric Co., Puget

Sound Energy, Inc., and Nevada Power Co./Sierra Pacific Power Co.

BPA is continuing its outreach to all of its stakeholders. If you'd like more information, please contact your TBL account executive.

Planning for the unlikely: Northern Intertie curtailment plan

The risk of power failure this winter has declined due to steps taken by the Bonneville Power Administration and other Northwest utilities, but some transmission paths remain congested. For the west side Northern Intertie, that could require the Transmission Business Line to curtail transmission service in the Puget Sound area if and when that path becomes overloaded.

Over the next several years, BPA infrastructure projects will improve many of the currently congested paths. Still, today unusual load and resource patterns coupled with component outages could limit the ability of the transmission system to handle all loads in the Seattle to Bellingham area. This will be addressed beginning December 17 by a new management plan for Puget Sound curtailment that the TBL has been working on with its customers since January.

The TBL has been working with the customers affected by potential curtailments in the area to devise a final plan that is equitable and consistent with its tariff, while also ensuring the security of the federal transmission

“THIS NEW PROTOCOL IS ONLY FOR USE WHEN THE TBL SYSTEM SUFFERS EXTREME CONGESTION PROBLEMS.”

CLIFF PERIGO

TBL ACCOUNT EXECUTIVE

system. The plan calls for pro rata cuts of firm transmission service in the Puget Sound area when transmission capacity is exceeded by loads including south to north transfers on the Northern Intertie.

“This new protocol is only for use when the TBL system suffers extreme congestion problems,” said Cliff Perigo, TBL Account Executive. “Under normal circumstances, it has sufficient transmission capacity to

meet its firm transmission commitments, including the entitlement return, as long as all transmission lines are in service.”

“ALL FIRM TRANSMISSION SERVICE WILL BE CURTAILED ON A PRO RATA BASIS ONLY AFTER ALL NON-FIRM TRANSMISSION SCHEDULES HAVE BEEN CUT.”

CLIFF PERIGO

Perigo explained that the TBL must curtail transmission when certain conditions impose constraints, but that all firm transmission service will be curtailed on a pro rata basis only after all non-firm transmission schedules have been cut.

The plan kicks in when the Operational Transfer Capacity (OTC) of the West side Northern Intertie’s south to north path drops below the amount needed to return the Canadian Entitlement. At that point, the TBL will place scheduling limits on the federal transmission system into the Puget Sound Area. Schedules over nonfederal transmission lines are not included in the management plan.

In the past, the Bonneville Power Administration simply curtailed service to British Columbia when there were Puget Sound transmission constraints. However, the Canadian-U.S. treaty entitlement return arrangements requires BPA to treat entitlement return to British Columbia with the same priority as other firm schedules to the Puget Sound area. This is also consistent with TBL’s tariff, which directs it to make pro rata cuts when system conditions demand. That includes cuts in the entitlement return as well as power scheduled to Puget Sound.

The TBL will use nomograms, forecasted loads and generation, and a curtailment calculator to determine

scheduling limits and the potential need for a curtailment in the two week ahead, day ahead, hour ahead, and current hour time frames. The scheduling limit is the maximum amount of power the TBL will transmit for each entity into the northern Puget Sound area over its transmission facilities South of Seattle and those that cross the Cascades.

In all cases, the calculation will assume that as much of the Canadian Entitlement Return as possible will be moved to the Eastside Northern Intertie. For the two week ahead and day ahead time frames, the results will only be used to assess the potential need to curtail loads, while actual curtailments will only be imposed on the actual operating day.

If the calculator forecasts constraints, the TBL will notify customers on the “Known Constraints” page of TBL’s Open Access Same Time Information System (OASIS) on the Internet at <http://www.transmission.bpa.gov/OASIS/BPAT>.

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Send your letters and comments to your account executive or to “Access: Letters to the Editor,” Bonneville Power Administration, Transmission Business Line – Attn: Linda Harris, TMP-Dittz, P.O. Box 491, Vancouver, WA 98666; e-mail: lharris@bpa.gov

Review group approves “G-9” infrastructure projects

An Infrastructure Technical Review Committee completed its annual review of Bonneville Power Administration plans for transmission infrastructure projects and released its first report in September. The Committee review ensures that the Transmission Business Line designs programs and prioritizes projects in the most effective way.

The Committee, made up of regional technical transmission experts, said in its report that “There is a compelling and immediate need to upgrade portions of the Northwest bulk transmission grid. The first nine projects are high priority and [BPA] should complete the detailed planning and development process as soon as possible.”

Known as G-9 for the first nine groups of transmission infrastructure projects, they address transmission reliability issues caused by growth in demand, integration of new generation facilities and alleviating congested transmission paths.

“All nine of these projects are woven into our need to maintain transmission reliability,” said Bill Mittelstadt, principal transmission system planner for the TBL. “Now that we have the concurrence of an independent technical review group, we know we’re on the right track to maintain reliability and to make sure we can continue to offer our customers the service they need and want.”

The Committee also concluded that “BPA borrowing authority for transmission should be increased by at least \$1 billion in order to ensure that sufficient financial resources are available to accomplish transmission expansion over a ten-year planning horizon.”

TBL has already begun environmental studies and has had meetings with customers and tribes. Kevin

Ward, TBL Policy Strategist, said that most TBL customers, constituents, and Tribes have already heard about these projects, but they may not have heard the term G-9. “That reference will be used often over the next five years while the projects are being planned and are moving toward construction,” she said. “G” or Group refers to a number of reinforcements that address one or more transmission concerns.

The technical review group was made up of technical experts from the Northwest Power Pool, including Seattle City Light, Snohomish Public Utilities, Puget Sound Energy, PacifiCorp, Portland General Electric, Montana Power Company, Idaho Power and Avista, all of which schedule power over the TBL’s transmission lines and have a direct interest in the federal system’s transmission reliability.

The group reviewed the need for each project and then helped TBL planners modify and improve the project plans of service.

“It was important to have everyone involved in clarifying the needs for each project and to help design the report,” said Mittelstadt.

“Although it was difficult to reach an agreement on every one of the findings, we reached a point where everyone was satisfied and now we have letters of endorsement from all parties,” Mittelstadt said. “I think people realized the driving need for doing this now. As we focus on the borrowing authority issue, it will be important to show a united front.”

The nine projects are:

■ **G-1 Kangley-Echo Lake 500 kV line** addresses transmission capacity in northern Puget Sound area, adding about 600 MW of transfer capacity to serve growing loads and the need to return Canadian

Entitlement power to Canada. It includes nine miles of transmission line and upgrades at two substations. November 2002.

■ **G-2 Schultz-Wautoma 500 kV line** and substation is located in the middle Columbia River basin, but it will improve service in the I-5 corridor and over the intertie lines into California. It will add about 600 MW of transfer capacity. October 2004.

■ **G-3 McNary-John Day 500 kV line** will add 1,200 MW of transfer capacity along the Columbia River from the Tri-Cities to The Dalles. The line is needed largely to serve new generators in the area. October 2004.

■ **G-4 Lower Monumental-Starbuck** is a 15-mile line that will integrate a proposed 1,200 MW generator at Starbuck, Wash. It is contingent on developers signing a long-term transmission agreement. October 2004.

■ **G-5 Smith Harbor-McNary 500 kV line** would integrate a proposed 1,300 MW generating plant at Wallula. It also is contingent on a long-term transmission agreement. October 2004.

■ **G-6 Schultz** series capacitors will help prevent voltage collapse in Puget Sound. November 2003.

■ **G-7 Celilo** modernization replaces the last of the mercury arc converters to help maintain the DC Intertie’s transfer capacity at 3,100 MW instead of degrading to 1,100 MW. December 2002.

■ **G-8 Monroe-Echo Lake 500 kV project** would add 600 MW transfer capacity south to north and 850 MW north to south in northern Puget Sound. October 2005.

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Review group approves “G-9” infrastructure projects

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■ **G-9 Bell-Coulee project** would replace 79 miles of existing 115 kV line with a 500 kV line from Grand

Coulee Dam to Spokane, initially adding about 800 MW in transfer capacity, which could be boosted to 2,000 MW with other system reinforcements. October 31, 2004.

The G-9 projects lead the TBL’s list of reinforcements that need

immediate attention, but the entire list of infrastructure projects actually totals 20. Details of all projects can be found on the TBL website at

http://www.transmission.bpa.gov/tbl/lib/Publications/Infrastructure/default_files/slide0001.htm.

Generation projects reach record level

The number of applications to the Transmission Business Line for transmission service since March has grown from about 40 to over 70 as developers continue to respond to West Coast power shortages. The tally in power has grown from 18,000 megawatts to a total of about 30,000 MW. Yet the Northwest can expect only a fraction of those projects to come on line in the next two years and after that the market may dictate when a project is built, or if it will be built.

The good news for regional electricity supplies is that nearly 4,000 MW are either in service or under construction, said Mike Raschio, TBL Account Executive. The not so good news is that the time it will take to complete the interconnection studies for proposed projects that are at the end of the queue will likely increase to 18 months or longer.

Of the 4,000 MW, 765 MW are already on line at the Klamath and Rathdrum generating stations, leaving 3,200 MW that developers say will be in service by the end of 2003. In addition, there are a number of projects in the process of permitting and studies that could provide the region with 10,000 MW more by the end of 2005.

“Of the more than 70 requests, many are simply exploratory and may never come on line,” Raschio said. “In fact, over the past five months about a half-dozen developers have withdrawn their projects, but still there are a number of new combustion turbines and many new wind projects with multiple

sites requesting interconnection.”

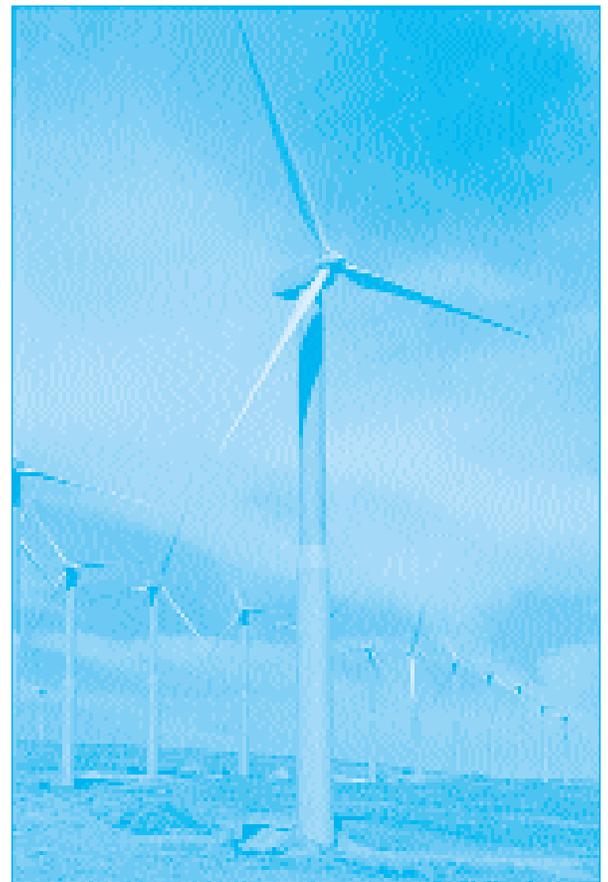
Each application for transmission service has been taking about 12 to 18 months to process. That includes several months waiting while in the queue and then about nine more months to complete a system impact study, which determines what facilities will be needed to service the generator, and an environmental impact statement. According to Raschio, those studies and the eventual integration of the generator can be very complex. As the queue gets longer, those at the end can expect to wait longer for the needed studies.

There is no way at this point to prioritize projects according to how likely the developer is to build, Raschio said. If there was such a scheme, it would allow the TBL to move projects that are farther along in development closer to the top of the queue to help the developer meet construction and power purchase agreement deadlines.

However, the Federal Energy Regulatory Commission is in the early stages of a proposed rulemaking process in which it seeks to standardize integration requirements and agreements. The rulemaking could open up the potential for transmission

providers to reprioritize transmission requests by setting certain milestones projects must meet before stepping through the next hoop.

The rulemaking is in very early stages and the TBL is in the process of



Wind farms like FPL Energy’s Stateline Project are making interconnection requests.

reviewing the Advanced Notice of Proposed Rulemaking (Docket No. RM02-1-000, issued October 25, 2001). It can be found on the Internet at http://www.ferc.gov/electric/gen_inter.htm.

Planning for the unlikely: Northern Intertie curtailment plan

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The TBL will repeat this calculation on the afternoon prior to the preschedule day. If that calculation also determines a need for curtailments, the affected customers will be notified. Still, this notification is advisory only. At this point, parties can preschedule as usual, but the TBL will not accept nonfirm schedules south to north over the Northern Intertie during the advisory hours.

The TBL will continue to calculate OTC in real time and, if necessary,

real time schedulers will curtail schedules on a pro rata basis during the actual operating day and notify customers.

Perigo said TBL customers have several choices when responding to a curtailment directive. They can meet the curtailed amount of energy with demand side management measures, drop some interruptible loads or loads with back-up energy, or they could buy power for redispatch from generators located close to their loads in Puget Sound.

While developing the curtailment plan, TBL is also pursuing other avenues to avoid transmission deficiencies. Those include

transmission reinforcement projects, such as work at several substations, as well as encouraging west side generation projects. In addition, the TBL is working with the Canadians to shift as much of the entitlement return to the east side Intertie prior to actual curtailments.

TBL Account Executives are prepared to answer questions about the curtailment plan and how a curtailment could affect individual customers.

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