

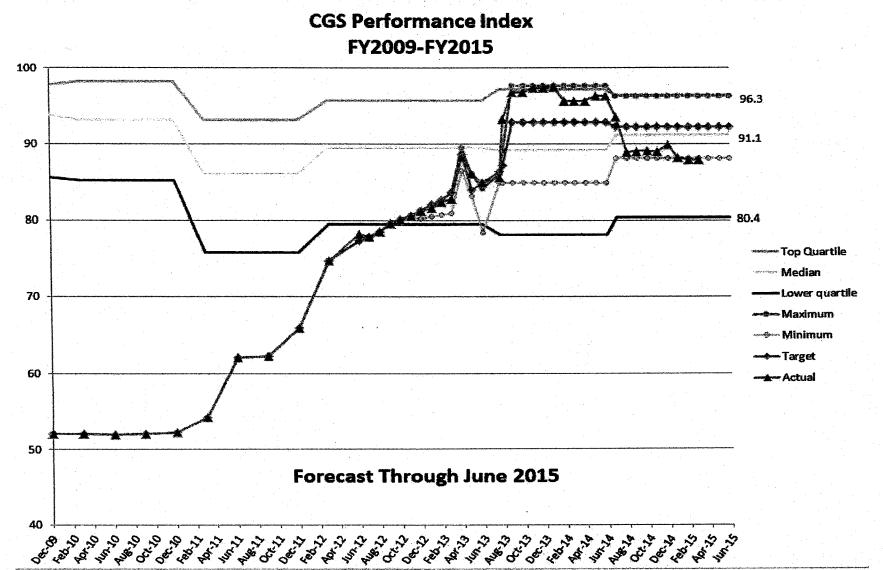




# Joint Executive Board and Board of Directors Chief Nuclear Officer Report

Grover Hettel Vice President, Operations April 22, 2015







# Excellence in Performance & Member Services

# Mark Reddemann Chief Executive Officer

# ENERGY NORTHWEST

# Safe, Reliable, Predictable and Cost-effective

- Agency Record: 957 days without lost-time accident – almost 10 million hours worked
- Columbia Records:
  - 678 days online
  - 9.8 (FY) and 9.5 (CY) million MWhrs
- Nine Canyon & Packwood: 370,000 MWhrs

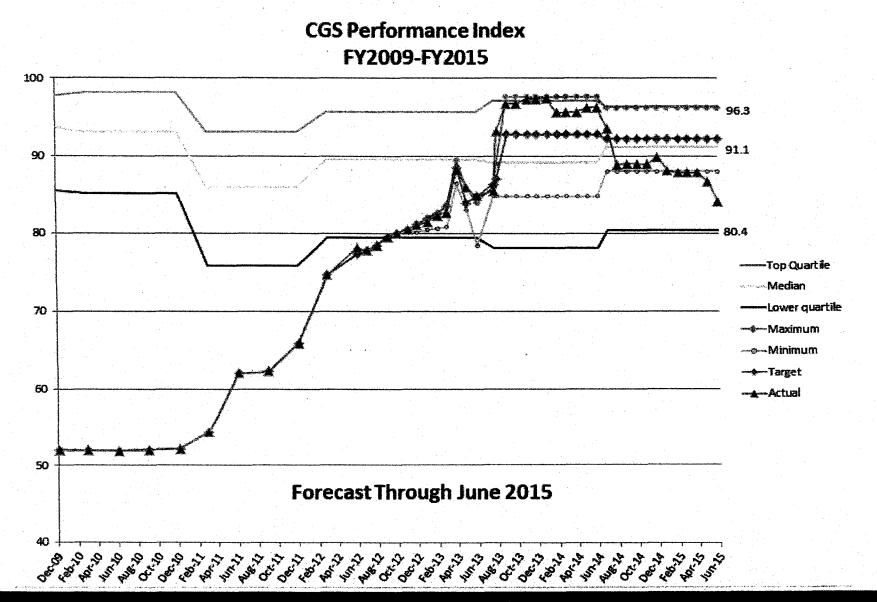


# Executive Board/Board of Directors Chief Nuclear Officer Report

Brad Sawatzke Chief Operating Officer/Chief Nuclear Officer July 22, 2015







7 🖇 97% 💼

# 🕻 Search

From: Swank, David A. Sent: Tuesday, August 18, 2015 12:52 PM To: Sawatzke, Bradley J. Subject: FW: Performance Indicator Threshold Update

Brad,

Darla Johnson sent this e-mail out yesterday and we are now in the fourth quartile on the INPO Index with our current 81.01. Our improvement efforts and commitment to the Excellence Model going forward will move us that much further up.



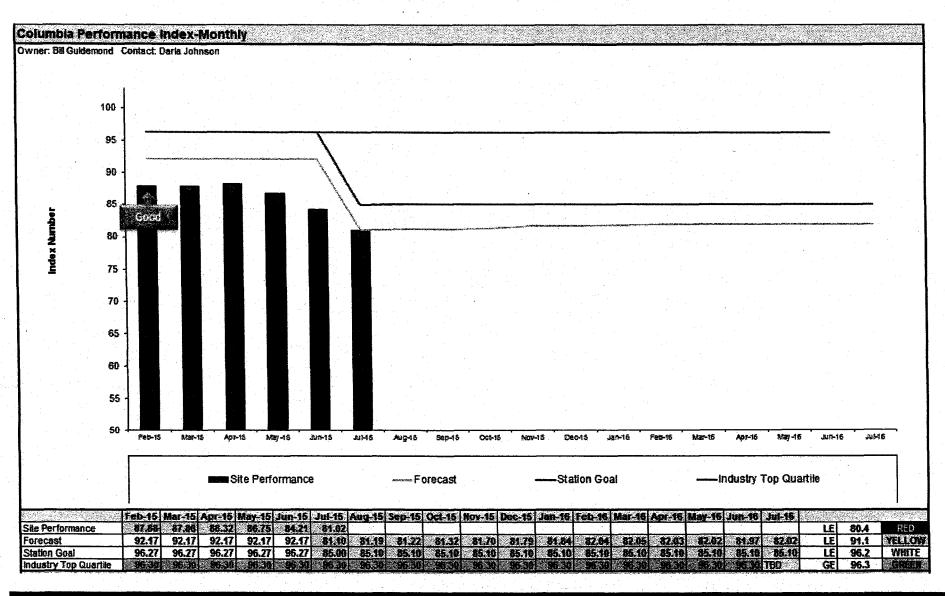


# Executive Board Chief Nuclear Officer Report

# Brad Sawatzke Chief Operating Officer/Chief Nuclear Officer August 27, 2015









# **CGS Index**

- Currently 81.02 3<sup>rd</sup> Quartile
- Point losses
  - -Forced Loss Rate
  - -Forced Loss Events
  - -Unit Capability Factor
  - -Collective Radiation Exposure

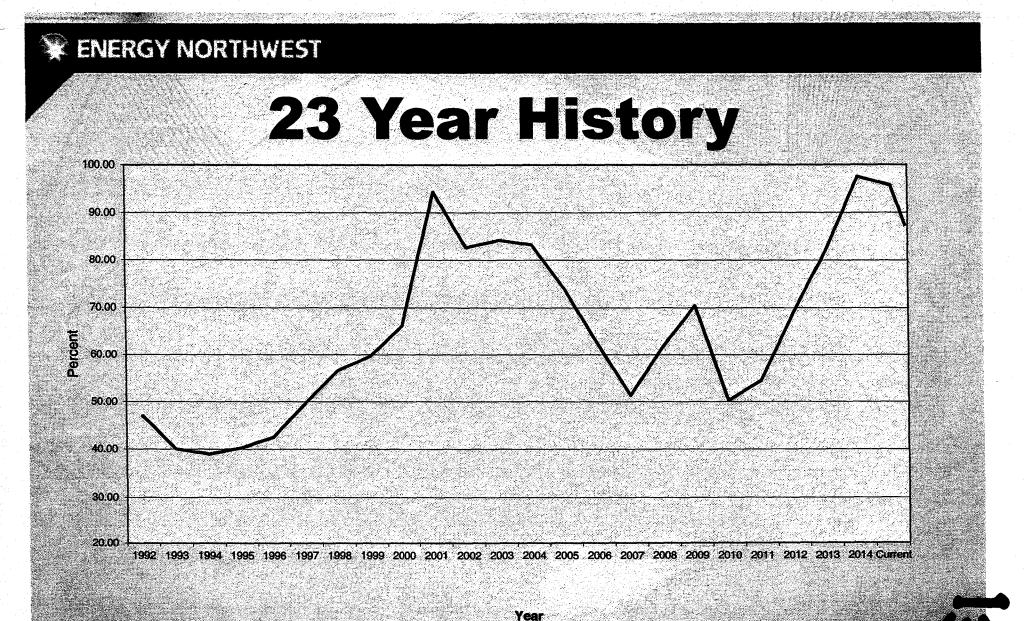


# **Agency Excellence**

# Mark Reddemann

**Chief Executive Officer** 





# **Columbia Performance**

# ENERGY NORTHWEST Safe, Reliable, Predictable and Cost-effective Agency Record: 1,042 days without lost-time accident Columbia Records: 683 days online 9.8 (FY) and 9.5 (CY) million MWhrs Nine Canyon & Packwood: 370,000 MWhrs

- 7-28-15
  - Phase IV leverages the nuclear and corporate excellence models to sustain our improvements in safe, reliable, predictable and cost-effective operations.
- Some of our most recent achievements include:
  - o Working 1,042 days, as of today, without a lost time accident.
  - We also completed our last Columbia refueling and maintenance outage with no recordable injuries. By all accounts, that is an outage record.
  - We operated Columbia for 683 continuous days when we shut down the reactor on May 9 for our biennial refueling and maintenance outage. This is known as a "breaker to breaker" run – another record.
  - Columbia also achieved fiscal and calendar year generation records during 2014, producing nearly 9.8 million and 9.5 million megawatt hours respectively. In fact, we have broken calendar year generation records at Columbia three years in a row.
  - For perspective, Columbia is the 3<sup>rd</sup> largest power generator in Washington, behind Grand Coulee and Chief Joseph dams.
  - Our other generation projects are also performing very well. Nine Canyon Wind Project and Packwood Lake Hydroelectric Project both increased generation last year, and combined, they generated more than **370,000** net megawatt hours in 2014.

# On Sep 16, 2015, at 4:32 PM, Gaston, James W. < jwgaston@energy-northwest.com > wrote:

Mark – this is not a lost time accident per K5 – the contractor. The reason for this is that K5 is a member of the Central Washington Homebuilders program (sponsored by WA L&I through the Building Industry Association of Washington - BIAW) called **Return on Industrial Insurance** (**ROII**). Under this program K5 pays the injured employee full salary for a 30 day period after the injury. If the employee can return to light duty within the 30 day period (based on a physician's release) there is no recognized "lost time" under this program. The injured employee is expected to return to work early next week on light duty – meeting the program's schedule for return to work. In addition, under the program K5 will submit a claim to the ROII program for reimbursement of 60% of the full salary paid to the employee during the initial 30 day period.

I am getting this information directly from the contractor, and have not as yet gotten any third party verification of the ROII program. JG



#### What Happened?:

On August 24, 2015, an employee of a contracted roofing company hired to perform work at the Industrial Development Complex (IDC) was descending an extension ladder after exiting a roof. The employee appears to have missed a ladder rung or lost balance and fell off the ladder sustaining multiple injuries. The contracted company reported the event to IDC Supervisor and transported the employee to the hospital for medical treatment. The contractor firm that IDC hired is an experienced roofing contractor who has performed the same work for EN multiple times. IDC supervisor briefed the contractor owner and on-site supervisor on EN safety requirements which are also covered in the contract document. Energy Northwest does not have direct supervisory oversight of the hired roofing contractor or their personnel.

#### **Immediate Corrective Actions:**

- IDC Supervisor contacted Industrial Safety to report the incident. CR #335326 was generated.
- The injured employee was treated and discharged same day.
- The owner of the roofing company interviewed other employees and conducted investigation of equipment and work practices. Conclusions: no equipment (ladder) deficiencies. Human performance and supervisory oversight failures.

#### Individual Excellence (ACEMAN):

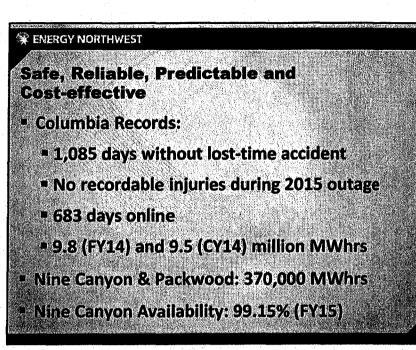
**Event Free** – Contractor reported the event to Labor and Industries as an OSHA recordable event.

#### **Enablers Missed:**

Worker Practices: Employee failed to follow safety procedures; Eyes on path

**Job Planning and Preparation:** Although the roofing contractor on-site supervisor held a tailgate safety meeting that morning to discuss the fall protection plan, ladder safety was not specifically addressed. The injured employee did not follow standard company practices and procedures for ladder safety.

**Supervisory Oversight:** The contractor's on-site supervisor was not within line of sight of the employee at the time of the event. The contractor's on-site supervisor did not readdress fall protection when the typical work protocol changed from use of scissor-lift to ladder access.



9-9-15

Phase IV leverages the nuclear and corporate excellence models to sustain our improvements in safe, reliable, predictable and cost-effective operations.

Some of our most recent achievements include:

o Working 1,085 days, as of today, without a lost time accident.

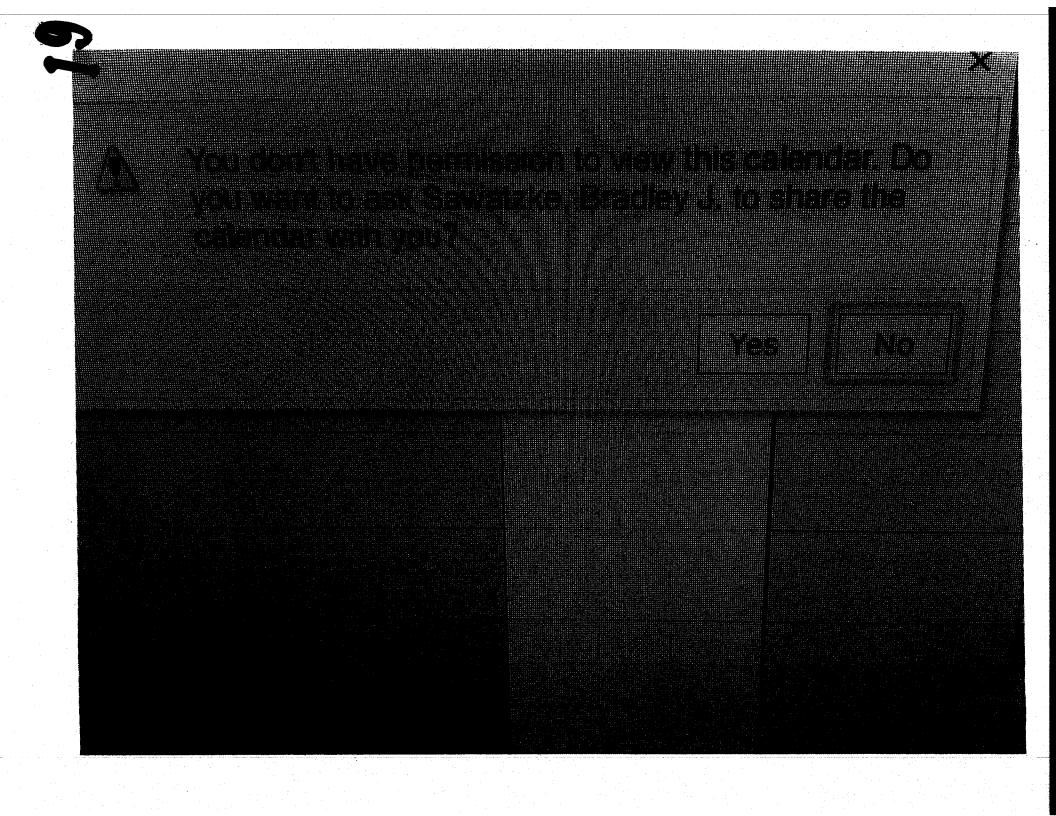
- We also completed our last Columbia refueling and maintenance outage with no recordable injuries—another record.
- o And, as a result of completion of some outage activities, output increased by 28 MWe.
- Going into our biennial outage we operated Columbia for 683 continuous days when we shut down on May 9. This is known as a "breaker to breaker" run—another record.
- Columbia also achieved fiscal and calendar year generation records during 2014, producing nearly 9.8 million and 9.5 million megawatt hours respectively. In fact, we have broken calendar year generation records at Columbia three years in a row.
- For perspective, Columbia is the 3<sup>rd</sup> largest power generator in Washington, behind Grand Coulee and Chief Joseph dams.
- Our other generation projects are also performing very well. Nine Canyon Wind Project and Packwood Lake Hydroelectric Project both increased generation last year, and combined, they generated more than **370,000** net megawatt hours in 2014.
- o Nine Canyon achieved a new availability record during fiscal year 2015 99.15%.
- These results have been achieved while reducing agency-wide costs.

### ENERGY NORTHWEST

Safe, Reliable, Predictable and Cost-effective

- Columbia Records:
  - 1,118 days without lost-time accident
  - No recordable injuries during 2015 outage
  - Capacity increased 28 MWe
  - 683 days online
  - 9.8 (FY14) and 9.5 (CY14) million MWhrs
- Nine Canyon & Packwood: 370,000 MWhrs
- Nine Canyon Availability: 99.15% (FY15)
- 10-12-15 Clallam
  - Phase IV leverages the nuclear and corporate excellence models to sustain our improvements in safe, reliable, predictable and cost-effective operations.
- Some of our most recent achievements include:
  - o Working 1,118 days, as of today, without a lost time accident.
  - We also completed our last Columbia refueling and maintenance outage with no recordable injuries—another record.
  - o And, as a result of completion of some outage activities, output increased by 28 MWe.
  - o Going into our biennial outage we operated Columbia for **683** continuous days when we shut down on May 9. This is known as a "breaker to breaker" run—another record.
  - Columbia also achieved fiscal and calendar year generation records during 2014, producing nearly 9.8 million and 9.5 million megawatt hours respectively. In fact, we have broken calendar year generation records at Columbia three years in a row.
  - For perspective, Columbia is the 3<sup>rd</sup> largest power generator in Washington, behind Grand Coulee and Chief Joseph dams.
  - Our other generation projects are also performing very well. Nine Canyon Wind Project and Packwood Lake Hydroelectric Project both increased generation last year, and combined, they generated more than **370,000** net megawatt hours in 2014.
  - o Nine Canyon achieved a new availability record during fiscal year 2015 99.15%.

These results have been achieved while reducing agency-wide costs.



From: "Javorik, Alex L." <aljavorik@energy-northwest.com> Date: September 20, 2015 at 2:05:54 PM PDT To: "Reddemann, Mark E." <mereddemann@energy-northwest.com>, "Hettel, William (Grover) G" <wghettel@energy-northwest.com>, "Schuetz, Robert E." <reschuetz@energy-northwest.com> Cc: "Prewett, Randall A." <<u>RAPREWETT@energy-northwest.com</u>>, "Armenta, Miguel A." <<u>maarmenta@energy-northwest.com</u>>, "Brown, David P." <<u>DPBROWN@energy-northwest.com</u>>, "Lorence, Stephen M." <<u>smlorence@energy-northwest.com</u>> Subject: FW: Fuel leak and weekend test

#### Mark, Grover, Bob, et al,

#### Puff Test Results

The Puff test results from the weekend indicate that we have a very small fuel leak. That said, the leak is so small that there is a possibility that the indication could go away over time. There is OE that shows this has happened previously. The puff test result showed the iodine fraction <u>did</u> respond with indication of a leak. However, we have not yet explored what is the level of potential "uncertainty" We will do this tomorrow morning after the 0615 meeting. GNF indicates that this leak indication is way too small to find or suppress. Therefore at this time testing to find where the leak indication is coming from is not planned.

We will conservatively trigger all actions for a fuel leak. This means that rod movements and power ramp rates will be slower and rod swaps may happen at a lower power than would otherwise occur. The first rod movement is in the middle of October and we will have the ability to monitor the leak indication until then and determine if continuing with restrictions are appropriate. Mella testing is being postponed for the time being.

To assure that we do not aggravate any potential fuel leak we are conservatively entering failed fuel actions but tomorrow after the 0615 we will have a meeting to discuss if this data should be entered into the INPO index as a failed fuel element. The index is binary and it only counts "leak" or "no leak". There is no provision for small or tiny leaks and there is no clear process for "withdrawing" a leak once we declare one. This is what we will discuss at the meeting tomorrow.

#### **Potential Causes**

Also Tomorrow, Miguel will activate the EOC to initiate a troubleshooting effort. The Fuels engineers will work with Systems and Components Engineers in the EOC to review the outage work. They will lay out what are likely or possible causes. The potential causes we've identified so far break out as follows:

- 1) The most likely cause is FME.
  - a. Valve work Of course we hot tapped the FW 101A during start up (note the tap was vacuumed out since pressure did not appear in the cavity between the disks). We also did significant in-body work with Crane. The RHR V-8 seat work, and the HPCS V-11 took significant work, and other valve and machining work by Crane and Continental.
  - In Systems Work The most notable is the cut and replacement of the RWCU piping. We also cut FW and installed the LEFM.
  - c. First In A While (FIAW) or First Of A Kind (FOAK) plant line ups flushing FME into the reactor systems:
    - i. We flooded up by injecting with HPCS. This flushed some piping we don't normally line up to the reactor.
    - We tested using a different line-up due to HPCS
       V-11 being unavailable. (different but perhaps not significant).
- 2) Fabrication Defects We are running GNF 2 fuel for the first

time, but this fuel is not new to the industry. Fabrication is not considered a likely cause at this time.

#### **Impacts**

We will need to sip our fuel during the next refueling. If we do not identify the leaking fuel bundle through suppression testing before the end of this calendar year, then we will need to plan on some loss of energy. This can be compensated by factoring this into our next core design and designing for additional fuel.

The core design decision will be made by the end of the calendar year so if we don't find the bundle by then we will have to plan on not finding the bundle until sipping.

If we sip the fuel and find the leak in a discharged assembly there is no impact to the next core's energy loading. If we find the leak in a reused assembly then we will have to discard the assembly and it's matching assemblies in the other 3 fuel quadrants; (the core is designed as a quadrant and replicated). Then we would likely replace these "lost" assemblies with an assembly that we were going to discharge. This approach will allow for a rapid response to "losing" the leaking bundle, (and its 3 sister assemblies) but will result in less energy. We will work with BPA to compensate for this possibility if we don't find a leaker before then.

#### Rumor Control

We have elevated dose rates in the off gas rooms. The dose rate is up by 20%. Engineering does not believe that our .1 to .2 micro curie per second leak indication could be the cause of this elevated dose rate. Engineering will ask the EOC to look at this situation as well.

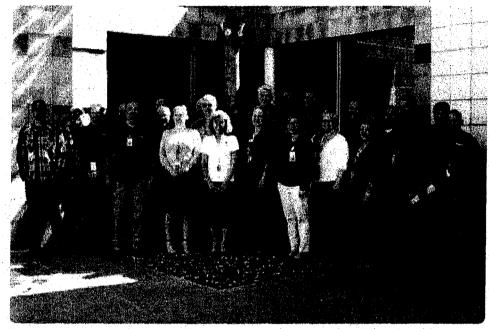
Please let Miguel or I know what questions you have.

Thank You, Alex

# **EN News - Full Page**

#### **EN NEWS**

# CEO recognizes out-of-the-box approaches



Kevin Shaub, Public Affairs

The Sept. 10 CEO Recognition Lunch saluted 25 EN team members for innovative approaches to achieve excellence.

Paul Dugan, hydro & wind projects supervisor, nominated the Nine Canyon Wind Project team for adopting a modified philosophy of preventative maintenance and timing, which resulted in record availability in fiscal year 2015.

"The turbines being 13 years old, you'd expect availability and production to decrease," Dugan said. "But due to their operating excellence, this team achieved 99.15 percent availability, which is phenomenal."

The 10 member team: Derek Britton, wind generation technician Gary de Vries, wind generation technician Kristopher Finkbeiner, wind generation technician Scott Immele, wind generation technician Jennifer Knighten (absent from lunch), generation project development specialist Tracy McPherson, wind generation technician Benjamin Niebuhr, wind generation technician site lead David Steagall, wind generation technician David Strand, wind generation technician Matthew Weyh, wind farm supervisor Sean Murphy, Nuclear Security captain, nominated officer Leo "Bud" Long, who took personal ownership of training a new team of officers. "Bud worked three 12-hour days to make sure each officer received the proper training," Murphy said. "This outside-the-box approach reduced overall costs in putting people in place."

CEO Mark Reddemann concurred. "I'm appreciative of your involvement and your professionalism. There's no better person in my mind to provide the training because you are the model security officer."

By taking an innovative approach, engineer principal **Steve Dallas** and **Joe Martson**, license candidate senior reactor operator, worked through a stubborn repair on a turbine service water heat exchanger. After two failed attempts to repair a seal between the tube bundle and the heat exchanger shell, the team questioned whether the post maintenance test had been completed satisfactorily. So they inserted a camera inside the heat exchanger and determined a tube leak not a gasket was the source of the water intrusion. They plugged the tube and the heat exchanger passed the post maintenance test.

Alex Javorik, vice president for Engineering, praised the team's persistence. "Your attention to detail, questioning attitude and tenacity got to the root of the problem," Javorik said. "Thank you guys for all the weekends that didn't get ruined because of your efforts."

Steve Lorence, Human Resources manager, nominated **Julie Marboe**, employee and labor relations manager, **Kim Morris**, Human Resources supervisor compensation, benefits & Human Resources information system, and **Angel Rains**, assistant general counsel and Legal Services manager, who responded to a U.S. Department of Labor audit.

"As a team they went the extra mile and saved the agency tons of money," Lorence said.

"Generally in these cases, companies seek outside assistance for attorneys and consultants and costs mount expedientially," Bob Dutton, general counsel, said. "Here we did about 99 percent of the work in-house. We knew where to get the information and how to present it to the labor department in a positive way that got good results."

Bruce Hugo, Training specialist Operations, nominated Larry Dickerson, reactor maintenance coordinator, who was successful in lobbying for a different method of maintenance work. During R-21, Dickerson noticed that a brief use of the high pressure core spray system during cavity fill didn't change water clarity or raise dose rate. He successfully made the case for a faster fill rate method, which resulted in reduced dose and time saved during Refueling and Maintenance Outage 22.

"Larry's work led to reduced time required for cavity fill from more than five hours to about two hours," Reddeman said. "Reducing the time saved the agency tens of thousands of dollars in costs."

Steve McNutt, environmental scientist senior, nominated **Dwendell Oaks**, mechanic, and **Levi Woods**, craft and maintenance supervisor, who were part of the team that achieved Environmental Management System goals to recycle the surplus of refrigerants on-site.

"We not only achieved our goal of moving 1,500 pounds off-site, these gentlemen moved twice that, more than 3,000 pounds," McNutt said.

Reddemann nominated **Debbie Barnes**, facility property management coordinator, **Rick Hermann**, engineer principal, **Anna Markham**, Public Affairs specialist, **Janet Wendland**, material specialist senior, and **Ron Wick**, Public Affairs design senior, for their contributions to the Junior Achievement program, in which business professionals interact with about 4,000 students in local classrooms.

"Your volunteerism delivers real world experiences to students in our community," Reddeman said.

Wendland took the opportunity to invite other EN employees to volunteer.

"You don't have to be a teacher, because Junior Achievement gives you everything you need," Wendland said. "It takes one hour for about five to six weeks. You work with whatever teacher you want, whatever grade you want, whatever school you want. So if you're interested, I have the forms."

# Learn from ladder fall

Jim Gaston, Energy Services & Development general manager

Regretfully, an agency contractor experienced a recordable injury at the Industrial Development Complex Aug. 25. The Columbia Generating Station's safety clock for lost time accidents and recordable injuries isn't affected by this event at the IDC.

One of the most common safety accidents involves the improper use of ladders. We all know people – possibly even ourselves – who have misused a ladder by not tying off, not having the proper ladder angle, or just plain using the wrong ladder for the wrong application.

Last month at the Industrial Development Complex a contract worker simply lost focus – he missed a ladder rung while descending and fell to the ground. The vendor is an experienced roofing contractor who has performed this same work multiple times with an impeccable safety record. Energy Northwest staff had, as always, briefed the contractor/owner and on-site supervisor on EN safety requirements, which were also covered in the contract document.

This accident was simply a result of a worker losing focus on what he was doing. Maybe he was trying to move too fast. Maybe he had his mind stuck on a recent conversation. Regardless of the cause of his loss of concentration – he did not follow either Energy Northwest or his own company's safety rules, and he fell.

His multiple injuries were the result of his loss of concentration. He required offsite medical treatment which was reported by the business owner to Washington State Labor and Industries.

Please use this safety operating experience to redouble our efforts at maintaining focus on safety – both in the workplace and at home.

# Columbia returned to normal INPO monitoring status

Jack Pierce, recovery manager

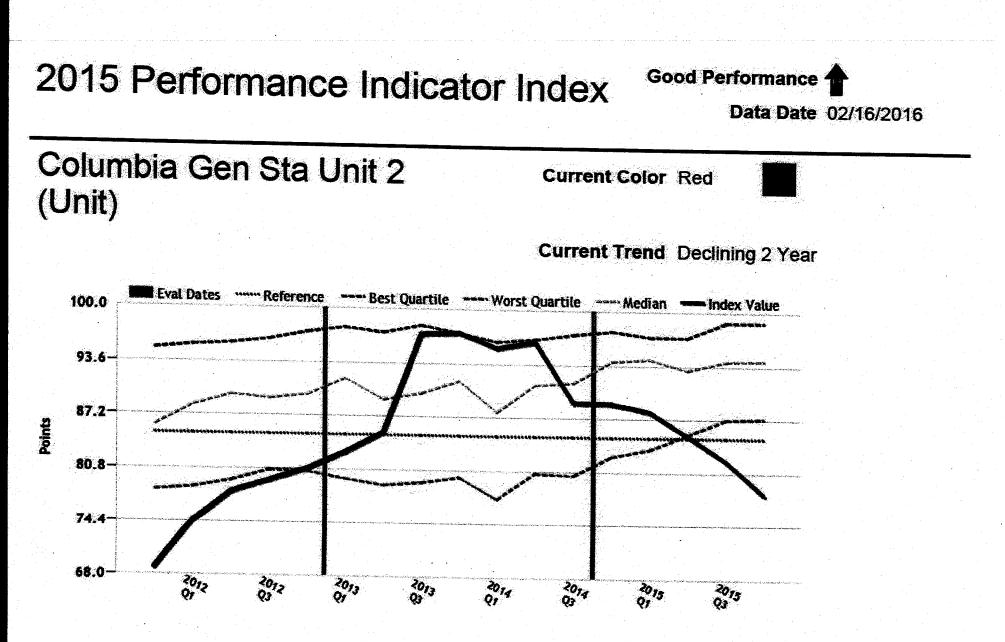
The Institute for Nuclear Power Operations this month returned Columbia to normal monitoring status.

INPO placed Columbia on elevated monitoring status following an evaluation and assessment last year to help determine if our actions to address gaps in emergent issue response and engineering configuration management were achieving sustainable improvement. Last month, INPO conducted a review visit at Columbia and determined that improvements in engineering vendor supplied product quality, reductions in calculation backlogs and better management of emerging plant issues were both effective and sustainable. As a result, INPO returned Columbia to normal monitoring status. These results speak highly of your efforts to achieve sustainable improvements in performance and improve our standing in the industry.

This process is part of INPO's strategy to prevent performance declines. Under this strategy there are three monitoring levels: normal, elevated and escalated. INPO monitoring increases as performance declines. If performance declines significantly the station is placed in recovery status with INPO providing additional assistance and engagement to help drive improvement.

If you would like more information about this change, or have questions regarding INPO's monitoring strategy, please contact Jack Pierce at ext. 8524.

Coming soon to an office or cubicle near you (maybe yours)



			ESAD (Excluding 61000)			
Category	Criteria		Goal	% of Program	Result	Earned
Plant Performance & Operational	Packwood Availability	150%	100%	12.5%	On track to exceed Target	
		100%	97.65%			
		50%	95.30%			
	9 Canyon Availability	150%	100%	12.5%	On track to exceed Target	
		100%	98.50%			
		50%	97%			
	Initiative Success	150%	≥12 points	30%	On track to meet Stretch	
		100%	8 points			
		50%	4 points			
	Safety Success (based on any bxxxx employee or contractor on ES&D managed property)	150%	Zero recordables and <2 offsite medical treatments	5%	On track to meet Target	
		100%	Zero recordables			
		50%	1 recordable			l a Altonia
Environmental Safety - 5%	Violations/ Fines	150%	Zero from any federal, state or county for any reason <sup>1</sup>	5%	On track to meet Stretch	
		100%	Zero from any environmental agency			
		50%	One from any environmental agency			
Cost of Operations - 35%	Budget Performance/ BDF Cash Margin (Cash Margin attenue (tower) figures apply / Demard Response project is not extended.)	150%	\$541k or \$965k	20%	On track to meet Stretch	- 14 -
		100%	\$401k or \$715k			2
		50%	\$261k or \$465k			
	BDF Revenue Generating Profit Margin	150%	\$750k	15%	On track to exceed Target	
		100%				
		50%	\$150k			

25

From: Sent: To: Cc:

Subject: Attachments: Paoli, Michael J. Thursday, September 17, 2015 4:58 PM Reddemann, Mark E. Myers, Zenaida A. (Zeny); Ridge, Brent; Martinez, Carla J.; Smith, Angela D.; Barwick, Susan L. CEO EB Remarks 0915 CEO Report to EB - Walkley Room.doc

Draft for review. Carla's team - cc'd - is standing by to take edits for action prior to Tuesday. r/Mike

Michael J. Paoli Public Information Officer Manager | Public Affairs Energy Northwest | Desk: 509-377-4164 | Cell: 509-713-4950 Energy Northwest is subject to the Washington Public Records Act, RCW 42.56. This email and its attachments, if any, may be disclosed as a public record.

Good morning.

### **Newhouse orientation**

- Representative Dan Newhouse was at Columbia the first of this month for a public power orientation, orchestrated by Anita Decker and the Northwest Public Power Association.
- We were joined by commissioners and general managers including Terry representing Grant, Douglas, Benton, Franklin, Chelan and Okanogan public utility districts, and Benton Rural Electric Association.
- Lori, of interest to you, Chad Bartram did a nice job outlining the challenges facing utilities as a result of the changing nature of the grid everything from electric vehicles to rooftop solar.
- Franklin's Debbie Bone Harris brought up the future of SMRs in this region, which gave me a perfect opportunity to reiterate what you all already know: We can debate climate change, but if we're really serious about clean energy, we need to pay attention to every single credible analysis relating to clean energy, all of which conclude that that existing nuclear and new nuclear has to be part of our future if we're to achieve our carbon reduction goals.
- The point was made that small modular reactors are a great way to achieve those goals, particularly in markets which can't afford to take on the large generation provided by new big nuclear.
- I discussed our teaming arrangement with NuScale Power and the Utah Associated Municipal Power Systems, and the potential to build an SMR right here next to Columbia when the time comes for increased demand in Washington.
- I also added to comments provided by Ron Skagen from Douglas, about the negative impact of production tax credits for wind. I pointed out that markets went negative several times during 2012 because wind farms were producing power that wasn't needed, which, as you know, also stresses Columbia Generating Station by requiring us to load follow.
- The bottom line, as I've said to legislators, is that wind is beneficial, but we need to move away from production tax credits.

- I also told the congressman about nuclear's 63 percent support from Washington residents, and the 93 percent support we have right here in our backyard .... along with the surprising low 18 percent of people who believe their neighbors support nuclear. That's 18 percent perception compared to 63 percent reality.
- For his part, Representative Newhouse gave some insight into the push back received from coal producing states to the Environmental Protection Agency's Clean Power Plan.
- He also committed to the group that he would not hesitate to work across the isle on issues ranging from hydro project relicensing to the negative impact on hydro value brought on by production tax credits for wind.
- Terry, would you like to add any observations or comments from the discussion?

### Oregon state delegation

- The next day we hosted a group of Oregon state legislators, who joined us for our all-employee celebration, followed by a tour of Columbia.
- As I mentioned last month, we're grateful to Clay Smith of Northern Wasco County <u>People's</u> Utility District for personally working with Public Affairs and engaging Oregon Representative John Huffman from the Dalles to set up the visit.
- Sid, Lori and Kathy joined Brent and I and our guests for lunch, and I think we all took some pride in watching these legislators pass around the table graphic which listed recent Columbia and agency accomplishments in the areas of safety, cost, reliability, predictability, and environmental stewardship.
- Sen. Huffman took Mike aside at the end of the tour and thanked us for showing and telling these legislators exactly what he wanted them to see and hear. This is the first time in my five years that we've hosted an Oregon delegation.

2

# AWB panel

 Just last week I was honored to serve on a panel at the Association of Washington Business' annual policy summit, to speak on the role changing energy has within Washington state.

- I had the very unique opportunity to address business and opinion leaders from throughout the state, and make them aware of the mission of Energy Northwest and the nature of our public power consortium. I spoke to the high performance of our assets, and, naturally, to the significant value Columbia Generating Station holds for our state and the region.
- I also spoke to the changing nature of the grid and challenges to grid reliability; the importance of base load power to grid stability; and the relatively positive response Washington should have to the Clean Power Plan – thanks mainly to conservation and our abundance of emission-free power generation.

### **NIPPC presentation**

- And earlier this week, in response to their invitation, I presented at the annual meeting of the Northwest & Intermountain Power Producers Coalition, which actively pursues informal and formal avenues and forums to ensure a competitive electric power supply.
- I spoke about achievements throughout the agency resulting, principally, from implementation of the Excellence Model; as well as Columbia's declining cost of power over eight consecutive years; your development and implementation of the Excellence in Governance model; and where we are today with regard to opinions and actions surrounding nuclear energy in the Northwest, closing on our teaming agreement to operate the region's first small modular reactor.

### **All-Employee meeting**

- We closed August with a full day of our fist all-employee meetings since coming out of the refueling and maintenance outage, in which we communicated our assessment of outage performance to the entire team. This included, of course, our disappointment for going over schedule and not meeting our commitment to the region, in addition to our actions that will better prepare us to meet the schedule for R-23.
- Grover and Alex specifically walked employees through the high-level lessons learned from our post-R-22 assessment, with an emphasis on project implementation and related areas for improvement such as work scope, productivity and contingency planning.

- Talking to the positives as well, they covered a long list of outage work that will improve plant reliability;
- ... they talked about improvements to reactivity management brought about by the Power Range Neutron Monitoring system and the Rod Sequence Control System Removal;
- ... and they discussed the increased output resulting from installation of the Leading Edge Flowmeter,
- ...all of which, collectively, allowed us to raise our generation capacity to 1,190 megawatts.
- Brent gave employees a look at our path to success in the areas of staffing, operations & maintenance costs, and power generation – all part of the value optimization plan which helped us recently achieve top-quartile production cost compared to our peer group.
- He also discussed the importance of strong governance and oversight for establishing, guiding and controlling activities that are important to us as an organization.
- Jim Gaston introduced employees to our collaborative efforts with Benton, Clark, Mason 3, Seattle City Light, and Inland Power & Light to create the Utility-Owned Community Solar Planning Guide – a copy of which is in front of you. As a benefit to our members, we mailed a copy of the guide to each General Manager last week.

# **Recognition lunch**

- Since our meeting in Skamania, I've hosted my 58th group of employees for a CEO recognition lunch. These 25 employees come from a variety of departments, but they share a common approach to their jobs – innovation and a questioning attitude.
- By thinking outside the box, two engineers and a senior reactor operator worked through a stubborn repair job on a turbine service water heat exchanger. After two failed attempts to repair a seal between the tube bundle and the heat exchanger shell, the team questioned whether the post maintenance test had been completed satisfactorily. So they inserted a camera inside the heat exchanger

and determined a tube leak, not a gasket, was the source of the water intrusion. They plugged the tube and this important heat exchanger passed the post maintenance test.

- We saluted the entire Nine Canyon Wind Project team for adopting a modified philosophy of preventative maintenance and timing, which resulted in record availability during fiscal 2015. You'd expect the availability and production from 13-year-old turbines to decrease, but, due to their operating excellence, this team achieved 99.15 percent availability, which is phenomenal, and one of the achievements we celebrated earlier this month.
- I also recognized a group of employees for their contributions to the Junior Achievement program, in which business professionals interact with about 4,000 students in local classrooms. The group even took advantage of the recognition lunch opportunity to make a recruitment speech to the rest of us in the room.

### Member visits

- I've completed two additional member visits since our Skamania meeting and my first to our municipal members.
- Carla and I met with key managers at Seattle City Light and Tacoma Power, including their board of directors representatives – Mike Jones and Bill Gaines respectively.
- Both utilities are highly supportive of our member construct initiative to start a General Managers Group, and both utilities expressed a desire to collaborate on government affairs matters.
- Overall, I am pleased with the positive response each visit has generated to date

   they've proven a valuable investment of time, especially for the momentum
   we're building for additional initiatives as a joint action agency.

### Industry measures

 Before moving into asset performance, I want to recall last month's report from Brad in which he summarized Columbia's performance compared to the industry, using what we believe to be the most important measures in the areas of safety, reliability and cost. You saw that we're doing quite well in the areas of nuclear, industrial & environmental safety; human performance; and cost of power.

- We're not doing well with regard to Collective Radiation Exposure or Reliability compared to the industry due to the emergent outage work on our reactor water cleanup system piping, and the forced loss we incurred once we were back online as a result of the stuck discharge valve on one of the feedwater pumps.
- Several of our indicators are already top quartile, to include cost of power. But as Brad briefed, on overall measures we were 3rd Quartile compared to our peers. Improved performance measures from our peers during the last month have had the effect of pushing Columbia into the 4th Quartile.
- During his presentation, Grover will talk about action plans underway to help regain top-quartile performance in those areas where we are not at industry standards of Excellence.

High-Level Asset Performance [Slides for this section]

 As a reminder, the high-level asset performance for August looks a little different from what you've seen in the past, reflecting changes to the fiscal 2016 at-risk compensation program.

# Columbia FY16 Goals

- For Columbia, August's Online Collective Radiation Exposure is between threshold and target due to emergent work dose received, but we anticipate getting back on track to meet fiscal goals.
- The Industrial Safety Recordable Accident Rate is better than target.
- The Equipment Reliability Index is below threshold for August, and, as mentioned last month, due to forced loss rates resulting from the feedwater valve that was stuck in the closed position, a score of 89 is the best we can achieve this fiscal year, assuming no further issues.
- We're on track with Human Performance events.
- Net Generation improved to white for August due to Columbia being online at full power, to include increased performance from R-22 implemented projects
- Operations & Maintenance, and Capital Cost of Power, are both on target.

# Columbia Industry Performance

- Compared to the industry our Online Collective Radiation Exposure will be 4<sup>th</sup> Quartile this year, which reflects the increase in collective radiation exposure from an online modification we installed in February, and dose picked up as a result of reactor water clean-up maintenance during the outage.
- We'll be 1<sup>st</sup> Quartile for Total Industrial Safety Accident Rate,
- ... Estimate 3<sup>rd</sup> Quartile at end-of-year for Equipment Reliability...
- ...And 1<sup>st</sup> Quartile for both Human Performance Event Rate and Production Cost.

# Packwood

• Packwood is on track to meet target goals.

## Nine Canyon

• Nine Canyon availability is above target, and we're above target for safety, violations, and performance compared to industry.

# <u>ESD</u>

- Energy Services & Development remains at one initiative point through August. As you may recall, ESD received one in July by securing a large calibration services contract.
- The business development fund cash margin is at \$293K.
- The latest revised estimate value increased due to additional space leased by an Industrial Development Complex tenant, lower costs with Demand Response, and better margin with Tieton operations.
- And the profit margin is green at \$222K.
- The latest revised estimate value also increased due to additional space leased by IDC tenant and better margin expected with Tieton.

- Questions -

ESD Initiative Success Points (FY Target: 8; Current LRE: 8):

<u>July</u>

1. Calibration Services Contract

1

Good morning.

# Newhouse orientation

- Representative Dan Newhouse was at Columbia the first of this month for a public power orientation, orchestrated by Anita Decker and the Northwest Public Power Association.
- We were joined by commissioners and general managers including Terry Brewer and Steve Houston – representing Grant, Douglas, Benton, Franklin, Chelan, and Okanogan public utility districts, and Benton Rural Electric Association.
- Chad Bartram did a nice job outlining the challenges facing utilities as a result of the changing nature of the grid – everything from electric vehicles to rooftop solar.
- Franklin's Debbie Bone Harris brought up the future of SMRs in this region, which gave me a perfect opportunity to reiterate what you all already know: If we're really serious about clean energy, we need to pay attention to every single credible analysis relating to clean energy, all of which conclude that existing nuclear and new nuclear has to be part of our future if we're to achieve our carbon reduction goals.
- I made the point that small modular reactors are a great way to achieve those goals, particularly in markets which can't afford to take on the large generation provided by big nuclear plants.
- I discussed our teaming arrangement with NuScale Power and the Utah Associated Municipal Power Systems, and the potential to build an SMR right here next to Columbia when there is increased demand in Washington.
- I also added to comments provided by Ron Skagen from Douglas, about the negative impact of production tax credits for wind. I pointed out that markets went negative several times during 2012 because wind farms were producing power that wasn't needed, which, as you know, also stresses Columbia Generating Station by requiring us to load follow.
- The bottom line, as I've said to legislators, is that wind is beneficial, but we need to move away from production tax credits.

- I also told the congressman about nuclear's 63 percent support from Washington residents, and the 93 percent support we have right here in our backyard .... along with the surprising low 19 percent of people who believe their neighbors support nuclear. That's 19 percent perception compared to 63 percent reality.
- He committed to the group that he would not hesitate to work across the isle on issues ranging from hydro project relicensing to the negative impact on hydro value brought on by production tax credits for wind.
- Terry, would you like to add any observations or comments from the discussion?

## **Oregon state delegation**

- The next day we hosted a group of Oregon state legislators, who joined us for our all-employee celebration, followed by a tour of Columbia.
- As I mentioned last month, we're grateful to Clay Smith of Northern Wasco County <u>People's</u> Utility District for personally working with Public Affairs and engaging Oregon Representative John Huffman from the Dalles to set up the visit.
- Sid, Lori and Kathy joined Brent and I and our guests for lunch, and I think we all took some pride in watching these legislators pass around the table graphic which listed recent Columbia and agency accomplishments in the areas of safety, cost, reliability, predictability, and environmental stewardship.
- Sen. Huffman took Mike aside at the end of the tour and thanked us for showing and telling these legislators exactly what he wanted them to see and hear. This is the first time in my five years that we've hosted an Oregon delegation.

## **AWB** panel

- Just last week I was honored to serve on a panel at the Association of Washington Business' annual policy summit, to speak on the role changing energy has within Washington state.
- I had the very unique opportunity to address business and opinion leaders from throughout the state, and make them aware of the mission of Energy Northwest and the nature of our public power consortium. I spoke to the high performance of our assets, and, naturally, to the significant value Columbia Generating Station holds for our state and the region.

- I also spoke to the changing nature of the grid and challenges to grid reliability; the importance of base load power to grid stability; and the response Washington should have to the Clean Power Plan – thanks mainly to our abundance of emission-free power generation.
- I pointed out that Washington has the lowest residential (8.68) and industrial (4.3) electricity prices and the second highest amount of clean energy in the nation (84%).

#### **NIPPC presentation**

- And earlier this week, in response to their invitation, I presented at the annual meeting of the Northwest & Intermountain Independent Power Producers Coalition, which actively pursues informal and formal approaches to ensure a competitive electric power supply.
- I spoke about achievements throughout the agency resulting, principally, from implementation of the Excellence Model; as well as Columbia's declining cost of power over eight consecutive years; your development and implementation of the Excellence in Governance model; and where we are today with regard to opinions and actions surrounding nuclear energy in the Northwest, closing on our teaming agreement to operate the region's first small modular reactor.

#### **All-Employee meeting**

- We closed August with a full day of our first all-employee meetings since coming out of the refueling and maintenance outage, in which we communicated our assessment of outage performance to the entire team. This included, of course, our disappointment for going over schedule and not meeting our commitment to the region, as well as our actions that will better prepare us to meet the schedule for R-23.
- Grover and Alex specifically walked employees through the high-level lessons learned from our post-R-22 assessment, with an emphasis on project implementation and related areas for improvement such as work scope, productivity and contingency planning.
- Talking to the positives as well, they covered a long list of outage work that will improve plant reliability;

3

- ... they talked about improvements to reactivity management brought about by the Power Range Neutron Monitoring system and the Rod Sequence Control System Removal;
- ... and they discussed the increased output resulting from installation of the Leading Edge Flowmeter,
- ...all of which, collectively, allowed us to raise our generation capacity to 1,190 megawatts.
- Brent gave employees a look at our path to success in the areas of staffing, operations & maintenance costs, and power generation – all part of the value optimization plan which helped us recently achieve top-quartile production cost compared to our peer group.
- He also discussed the importance of strong governance and oversight for establishing, guiding and controlling activities that are important to us as an organization.
- Jim Gaston introduced employees to our collaborative efforts with Benton, Clark, Mason 3, Seattle City Light, and Inland Power & Light to create the Utility-Owned Community Solar Planning Guide – a copy of which is in front of you. As a benefit to our members, we mailed a copy of the guide to each General Manager last week.

#### Union negotiations

- I want to give you an update on several contract negotiations that are on-going with our union representatives.
- We're making good progress working with the International Brotherhood of Electrical Workers, Local 77, on the plant bargaining contract, which affects 42 of our employees. We've had seven negotiating sessions to date, and although the contract technically expires September 30, both parties have agreed to continue bargaining in good faith to address the final sticking points.
- We're also working diligently with IBEW Local 77 on the administrative bargaining contract, which expires October 30, and affects 22 of our employees. Together

we've made meaningful progress during four negotiation sessions, with three more scheduled.

I do not foresee any issues with these contracts as we move forward.

#### RontehrestDinner

- In response to your feedback on our monthly dinner meetings, we're changing the program going forward to move away from dinner speakers and instead we'll recognize members of our team by asking them to join us at dinner – these will be employees you wouldn't otherwise have an opportunity to interact with.
- Tonight we'll have four employees join us that are currently in leadership roles, and clearly have future leadership potential here at Energy Northwest.
- We'll be joined by:
  - o One of Alex's direct reports our Plant Support Engineering Manager,
  - o One of Brent's direct reports our Asset Manager & Controller,
  - Our Business Planning & Risk Officer, who is also part of Brent's organization,
  - And one of Grover's direct reports our recovery manager. I'll ask the vice presidents to introduce those folks to you tonight.

## **Recognition lunch**

- Speaking of recognizing employees...since our meeting in Skamania, I've hosted my 58th group of employees for a CEO recognition lunch. These 25 employees come from a variety of departments, but they share a common approach to their jobs – innovation and a questioning attitude.
- By thinking outside the box, two engineers and a senior reactor operator worked through a stubborn repair job on a turbine service water heat exchanger. After two failed attempts to repair a seal between the tube bundle and the heat exchanger shell, the team questioned whether the post maintenance test had been completed satisfactorily. So they inserted a camera inside the heat exchanger and determined a tube leak, not a gasket, was the source of the water intrusion. They plugged the tube and this important heat exchanger passed the post maintenance test.

5

- I recognized the entire Nine Canyon Wind Project team for adopting a modified philosophy of preventative maintenance and timing, which resulted in record availability during fiscal 2015. Due to their operating excellence, this team achieved 99.15 percent availability, which is phenomenal.
- I also recognized a group of employees for their contributions to the Junior Achievement program, in which business professionals interact with students in local classrooms. The group even took advantage of the recognition lunch opportunity to make a recruitment speech to the rest of us in the room.

#### HESE GENIER STORMUON CONTROL OF

- You may recall that in December I briefed that I had recognized at a CEO lunch a group of people who had worked more than four years to secure Columbia's river intake and discharge permit. About that same time, three Oregon-based groups filed a petition in Thurston County Superior Court against issuance of the permit by the Energy Facility Site Evaluation Council.
- At that time, Bob Dutton's team gained us intervenor status, which allowed us to engage in the dialogue and proceedings.
- Last week we received good news. The court found no evidence in the record to support the petitioners' claims. In particular, the court found no evidence to support the claim that our intake structure impinges or entrains salmon. In their ruling, they even went to some length to describe how our intake structure meets the best technology standard.
- Again, my thanks to Bob and his legal, environmental and regulatory teams on a job well done.

#### UAMPS visit to The Gitles/CGS

- Next month we have a couple of special engagement opportunities for you...the Utah Associated Municipal Power Systems board is meeting here in Tri-Cities – we're hosting a social for their board Monday evening, October 19, from 6:15 to 7:15 at the REACH museum.
- UAMPS has extended an invitation to the executive board and agency senior leadership to join them for dinner at the REACH following the social.

6

- The next day on Tuesday, October 20 UAMPS will hold their regular board meetings at Columbia Generating Station, which will include a tour of the Columbia.
- We've passed out a copy of the schedule. If you would like to attend the social, dinner, and/or the session at Columbia – keeping in mind that we have to avoid a quorum – please talk to Sid. If you plan to attend please fill out the RSVP card and give it to Carla before we adjourn tomorrow.

#### **Member visits**

- I've completed two additional member visits since our Skamania meeting and my first to our municipal members.
- Carla and I met with key managers at Seattle City Light and Tacoma Power, including their representatives to our board of directors – Mike Jones and Bill Gaines respectively.
- Both utilities are highly supportive of our member construct initiative to start a General Managers Advisory Group, and both utilities expressed a desire to collaborate on government affairs matters and interest in our Demand Response Program.
- Overall, I am pleased with the positive response each visit has generated to date

   they've proven a valuable investment of time, especially for the momentum
   we're building for additional initiatives as a joint action agency.

#### Industry measures

- During his presentation, Grover will talk about plans underway to help re-gain topquartile performance in those areas where we are not at industry standards of Excellence.
- He will also discuss a change we've made to add outage performance to the list of focus areas in Phase IV.
- Last month you questioned whether we should be in Phase IV. Brad, Grover and I discussed this issue at length and decided the short answer was yes.
- There were several reasons for our conclusion:

- As I mentioned, we have achieved top quartile in many areas and will likely never be in top quartile in all areas.
- As we've always said, our phases of excellence are building blocks that never go away. We are in all four phases today.
- We are and will continue to drive to achieve excellence in every area.
- At the same time, we concluded that outage performance was one of our largest contributions to performance not in the top quartile.
- We also concluded that collective radiation exposure, equipment reliability and supplemental personnel performance still require a lot of attention.
- These and other areas for improvement will remain under the original four focus areas in Phase IV.
- Finally, I can assure you we continue to drive for excellence.

## High-Level Asset Performance [Slides for this section]

• As a reminder, the high-level asset performance for August looks a little different from what you've seen in the past, reflecting changes to the fiscal 2016 at-risk compensation program.

# Columbia FY16 Goals

- For Columbia, August's Online Collective Radiation Exposure is between threshold and target due to emergent work dose received, but we anticipate getting back on track to meet fiscal goals.
- The Industrial Safety Recordable Accident Rate is better than target.
- The Equipment Reliability Index is below threshold for August, and, as mentioned last month, due to forced loss rates resulting from the feedwater valve that was stuck in the closed position, a score of 89 is the best we can achieve this fiscal year, assuming no further issues.
- We're on track with Human Performance events.

- Net Generation improved to white for August due to Columbia being online at full power, including increased output from R-22 implemented projects
- Operations & Maintenance, and Capital Cost of Power, are both on target.

#### Columbia Industry Performance

- Compared to the industry our Online Collective Radiation Exposure will be 4<sup>th</sup> Quartile this year, which reflects the increase in collective radiation exposure from an online modification we installed in February, and dose picked up during the outage.
- We'll be 1<sup>st</sup> Quartile for Total Industrial Safety Accident Rate,
- ... Estimate 3<sup>rd</sup> Quartile at end-of-year for Equipment Reliability...
- ...And 1<sup>st</sup> Quartile for both Human Performance Event Rate and Production Cost.

## **Packwood**

• Packwood is on track to meet target goals.

## Nine Canyon

• Nine Canyon availability moved to above target, and we're above target for safety, violations, and performance compared to industry. The August adjusted availability was another record at 9C.

# <u>ESD</u>

- Energy Services & Development remains at one initiative point through August. As you may recall, ESD received one in July by securing a large calibration services contract.
- The business development fund cash margin increased to \$293K and the latest revised estimate value increased due to additional space leased by an Industrial Development Complex tenant, lower costs with Demand Response, and better margin with Tieton operations.

- And the profit margin increased to \$222K.
- The latest revised estimate value also increased due to additional space leased by an IDC tenant and better margin expected with Tieton.

- Questions -

ESD Initiative Success Points (FY Target: 8; Current LRE: 8):

<u>July</u>

1. Calibration Services Contract