

**DNGS Community Advisory Council
and
PNGS Community Advisory Council
Joint Virtual Meeting
Minutes, December 1, 2020
Highlights**

Site Updates

Steve Gregoris presented an update for the Darlington site. He talked about the operating status of the four reactors and progress on the refurbishment of Unit 3. Richard Geofroy presented an update on the Pickering site. He talked about the operating status of the six active units and an upcoming WANO review. Both presenters gave a status report on COVID-19 protocols at each site.

Advancing SMRs in Ontario

Robin Manley talked about Darlington's plans for developing a Small Modular Reactor (SMR) and its vision for SMRs in the future of Ontario and other provinces. CAC members asked questions about the opportunities presented by this emerging technology.

Community Affairs Reports

Leah Bourgeois and Analiese St. Aubin presented an update on the involvement of the Darlington and Pickering stations in community activities over the past year. Support for non-profit organizations, working with community partners on fun and educational activities, and donations and activities to help various groups enjoy the Holiday Season were among the many activities mentioned.

**DNGS Community Advisory Council
and
PNGS Community Advisory Council
Joint Virtual Meeting
Minutes, December 1, 2020**

Pickering CAC:

Donna Fabbro
Natalie Harder
Bill Houston
Greg Lymer
Tracy MacCharles
Pat Mattson
Cody Morrison
Peter Ottensmeyer
Dan Shire
John Simpson

Regrets:

Jill Adams
Frank Dempsey
John Earley
Tim Kellar
Julie Kim
Sean McCullough
John Miseresky
Zachary Moshonas
Cameron Richardson
Helen Shamsipour
John Stirrat

Darlington CAC

Jim Boate
Jim Cryderman
Mary Anne Found
Sheila Hall
Janice Jones
Joe Neal

OPG:

Leah Bourgeois
Richard Geofroy
Steve Gregoris
Lindsay Hamilton
Jesara Holla
Vanessa Hughes
Dennis Jones
Jennifer Knox
Tho Dien Le
Robin Manley
Analiese St. Aubin

Hardy Stevenson Associates:

Francis Gillis
Dave Hardy

Topic #1: Julie Kim Retiring from CAC

CAC Facilitator Dave Hardy announced that Julie Kim is withdrawing from CAC responsibilities due to a relocation away from Durham Region for work. She sends her regards and thanks to all Council members. Dave expressed appreciation for Julie's participation in the CAC.

Topic #2: Review of Minutes

Dave noted that, in the October minutes of the Pickering CAC, Cody Morrison was listed as absent. In fact, Cody was in attendance and the minutes have been corrected accordingly. With no other changes, the Pickering CAC minutes for October 20, 2020 were approved.

Topic #3: Site Updates

Site updates were presented for Darlington and for Pickering.

Steve Gregoris, Senior Vice President, presented an update for Darlington Nuclear:

- There are four reactors at Darlington. Units 1 and 2 are operating at full power, and Unit 4 at 59% power.
- Unit 3 is now being refurbished.

- Unit 2 was the first reactor at Darlington to be refurbished. That project was completed on June 4th of this year—a very significant accomplishment. Unit 2 is now running well. Its refurbishment was completed safely and on time and on budget.
- Unit 3 has been down for 90 days, with approximately 1,000 days to completion of refurbishment, a little less than the time it took to refurbish Unit 2. Workers are now set to drain the reactor system and to separate Unit 3 from the rest of the plant.
- As mentioned, Unit 4 is operating at reduced power. This enables the unit to continue functioning during the separation of Unit 3.

Richard Geofroy, Director of Operations and Maintenance at Pickering Nuclear, presented a site update:

- There are six active reactors at Pickering. Units 1, 5, 7, and 8 are operating at full power. Units 4 and 6 are undergoing planned outages, which are expected to be completed before year end. At both units, critical components have been inspected, as have *defence in depth* processes. These are safety systems and other barriers to protect the public in the unlikely event of a nuclear incident.
- Life extension work has been completed at Unit 6, as it was for Unit 4. As well, Cobalt-60 has been harvested from Unit 6. (The gamma rays emitted by Cobalt-60 are used in the sterilization and irradiation processes for the medical device, pharmaceutical, food safety and high-performance materials industries.) OPG plays an important role in ensuring that Cobalt-60 is available for distribution around the world, and soon Darlington will be producing Cobalt-60 as well.
- Coming up is a WANO (World Association of Nuclear Operators) mid-cycle review of Pickering Nuclear. In addition to on-site inspections, there will be remote assessments from the Bruce Power and Point Lepreau nuclear stations.

COVID-19 Update

Richard noted that two Pickering Nuclear employees recently tested positive for COVID-19, which is defined as an outbreak by public health authorities. Therefore, all personnel were notified, and deep cleaning of the affected work area took place. Contact tracing was carried out with Durham Health. Both employees had family members affected. OPG is constantly in touch with other industries to improve protocols to protect against COVID-19.

Steve noted that Darlington Nuclear is also in touch with other nuclear plants and with local health authorities on COVID-19 protocols, including screening procedures, physical distancing and use of masks. Anyone entering the plant is screened by security and, as well, an app with questions about health is also used. The use of masks has

been increased. And now, when biometric testing is used at the site, results are available in 15 minutes.

A Council member asked if Steve could supply a brief, written background on refurbishment. He indicated he could supply a one-or-two-page briefing.

Topic #4: Advancing SMRs in Ontario

Robin Manley, Vice President New Nuclear Development, talked about the Darlington New Nuclear Project, which is currently focusing on developing a Small Modular Reactor (SMR) (Appendix 1). He noted that, in 2012, OPG received a 10-year Site Preparation Licence for Darlington New Nuclear from the CNSC. An application to renew that licence was submitted in June 2020. A CNSC licence hearing will be held on June 9 and 10, 2021.

OPG's vision for new nuclear at Darlington anticipates additional nuclear capacity towards the end of the decade. The new nuclear will provide low-carbon, reliable energy to meet Ontario's energy demand and support Canada's climate change goals. SMRs will meet these goals. No particular SMR technology has been selected yet. OPG is continuing to evaluate options; a decision will be required by the end of 2021 to meet the targeted timeline.

Robin said that OPG will continue Indigenous and public engagement in support of licence renewal and potential options for the future.

Robin noted that Darlington is the only site in Canada licensed for new nuclear with an approved Environmental Assessment. The envisioned development at Darlington will benefit all Canadians. OPG will leverage over 50 years of experience providing safe, reliable nuclear generation.

Robin responded to Council questions:

- *Is CANDU technology not in the game anymore?*
There are still decades more of CANDU operations ahead of us. We have held discussions about new CANDU reactors and have chosen not to assess that option in any detail at this time.
- *How long does a Small Modular Reactor last?*
There is some uncertainty on that, as all SMRs constructed in the near future will be the first of their kind. But they will probably last longer than 60 years.
- *What protection against earthquakes will SMRs feature?*
The CNSC requires nuclear reactors to have very strong defenses against seismic events, though earthquakes in Ontario are unlikely to be severe enough

to require such defenses. But SMRs will be at least as robust as CANDU reactors.

- *Will OPG's investment in SMR development be covered by the province or by the federal government? Or is OPG considering joint ventures?*

We have spent a lot of time thinking about that question but do not have an answer yet. Critics of the nuclear industry like to focus on costs. We are looking for the right kind of partnership to bring the technology in at low cost, but we are not there yet. We are looking for opportunities with private equity firms. We are also looking at the question of what does government need to do to facilitate distribution of SMRs across the country. OPG is owned by Ontario, so there's lots of opportunity to work together for the benefit of this province. But nothing is nailed down yet.

- *I think this is one of the most exciting developments in Ontario. But have you rejected the option of recycling used nuclear fuel?*

We support New Brunswick's recycling efforts. However, nuclear recycling technologies have not developed far enough to meet a timeline that would make sense to us. But it is possible that nuclear recycling will be a viable option down the road. Saskatchewan is going to use a multi-pronged approach to transitioning off coal. They also wish to sell uranium. That province plans to have a certain amount of nuclear power in place by 2030.

- *When do you anticipate that SMR technology will be developed enough to begin producing reactors?*

Non-disclosure agreements limit what I can say, but no such development is available today. All SMR projects throughout the West need development work. We are looking for projects in the Western world that are the right size, the right price and can be delivered on schedule. There is still some engineering work to do to get a design that would meet our needs.

Jennifer Knox, Manager of Public Affairs at Darlington Nuclear, noted that her department has set up a booth in the Bowmanville mall to inform the public about station activities. There will be significant public engagement as part of Darlington's SMR project. As well, Darlington CAC members will get an opportunity to participate in the CNSC hearing in June on OPG's licence renewal application for Darlington New Nuclear.

Topic #5: Community Affairs Reports

Leah Bourgeois is Senior Communications Advisor, Corporate Relations & Communications (Darlington).

Analiene St. Aubin is Manager, Corporate Relations & Communications, Stakeholder Relations (Pickering).

Leah and Analiese alternated with each other in presenting details about the involvement of the Darlington and Pickering stations in community activities over the past year. (Appendix 2).

They talked about “generating kindness”...

- in their local communities
- through community outreach
- for the holidays

Council Comment

Dave Hardy asked Pickering and Darlington Council members if they wished to send a letter of thanks to the respective employees for all the community support they provide through the Generating Kindness Program. Council members agreed.

A CAC member made the following remark through the chat function: “As a member of the Pickering Community Advisory Council and a member of the Royal Canadian Legion Branch 606, Pickering, I would like to thank all the OPG staff for their work and support in our November 11th Poppy Fund.”

CAC members asked several questions on various topics:

- *Canada has a uranium supply of 500,000 tons which, through domestic use and export, is going to be used up by 2050. An exciting aspect of SMRs is the opportunity for them to use depleted uranium, which would extend the supply to approximately 5,000 years. I would like to share a paper I recently delivered to the Canadian Nuclear Society which discusses the need to recycle nuclear fuel or die. Without enriched fuel we lose our nuclear sovereignty.*

(It was agreed that Peter Ottensmeyer’s paper should be enclosed with the draft CAC minutes, which go to Council members as well as Robin Manley and the other presenters.)

- *It’s a little disconcerting that the used nuclear fuel has never left the Pickering and Darlington plants.*

Robin: The Nuclear Waste Management Organization (NWMO) has a mandate for the whole country. That work is progressing, and site selection for a Deep Geological Depository (DGR) will be finalized over the next two years. It is expected that a DGR will be available for use in the mid-2040s.

- *The Great Lakes Waterfront Trail runs through Clarington. Just one small section of the trail remains unpaved. With the selection of the site for a Darlington SMR, it makes sense to move the trail closer to the north end of the property so that there is a continuous link across the municipality.*

Jennifer: We will continue to engage with the municipality on that issue.

Topic #6: Closing Comments

Steve Gregoris thanked CAC members for being here this evening. “We appreciate the interest, questions and support from our two CACs,” he said. He wished everyone a Merry Christmas and Happy Holidays.

Richard Geofroy, Jennifer Knox and Dave Hardy echoed Steve’s remarks and extended best wishes for the holidays.

Topic #7: CNSC News

For selected news items from the CNSC, please see Appendix 3.

Next Pickering CAC Meeting

Virtual Meeting 5:30 pm – 7:30 pm
January 19, 2021

Next Darlington CAC Meeting

Date to be Announced