

NUCLEAR ENERGY COMMUNICATIONS IN THE PACIFIC BASIN

*A Joint Study by the Pacific Nuclear Council
and Potomac Communications Group, Inc.*

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BACKGROUND ON THE STUDY

After the events in March 2011 following the earthquake and tsunami in northeast Japan, the Pacific Nuclear Council (PNC) recognized that its members were uniquely affected by the ongoing crisis and cleanup. To explore the situations communicators were facing in its member countries, PNC partnered with Potomac Communications Group, Inc. (PCG) in 2012 to conduct the first PNC-PCG Survey of Nuclear Energy Communications in the Pacific Basin. In 2014, PNC and PCG released the findings of the second joint survey at the 19th Pacific Basin Nuclear Conference.

This current study is the third joint PNC-PCG survey exploring post-Fukushima outreach trends in Pacific Basin nations. Preliminary results were unveiled at the 20th Pacific Basin Nuclear Conference, held in Beijing, China in April 2016. The purpose of this study was to:

- Engage communicators from Pacific Basin nations;
- Ascertain their current attitudes towards and knowledge of nuclear issues; and
- Learn what communication tactics are most effective.

Respondent Details

Between Feb. 23 and March 29, 2016, communicators from Pacific Basin nations were asked to complete a web-based survey about their communications efforts related to nuclear energy. The survey netted a strong response rate of 40.3 percent, which is comparable to the past two surveys.

The 2016 respondents self-identified according to continent, with:

- 46 percent from Asia;
- 40 percent from North America;
- 10 percent from Australia; and
- 4 percent from South America.

Since the first survey in 2012, engagement in the survey from communicators in Asia has increased, while participation from North America has decreased. A decline has also been seen in participation from European communicators.

Respondents also identified themselves by business sector, with:

- 35 percent working for their respective governments;
- 23 percent working in academia;
- 20 percent working for non-governmental organizations; and
- 6 percent working for utilities.

Compared to earlier surveys, participation from utilities and vendors decreased in 2016, while engagement from government and non-governmental organizations increased.

KEY FINDINGS

A few observations to keep in mind when evaluating the conclusions detailed below:

- A majority of PNC-PCG survey respondents (75 percent) identified the media and the public as their main target audiences.
- A majority of survey respondents (70 percent) reported they design communications for use by government officials.

For reference, a sample survey is provided as an [appendix](#) to this report.

Four trends emerged from an analysis of the 48 responses to the 2016 PNC-PCG Survey of Nuclear Energy Communications in the Pacific Basin.

- There are regional differences in the approaches that nuclear energy communicators take.
- The biggest barrier across all regions that communicators face is making technical information understandable to nontechnical audiences.
- Communicators are using digital, Web-based and social media communication channels more often and more effectively.
- Climate issues present both challenges and opportunities to nuclear energy communicators.

These are described in more detail in the following pages.

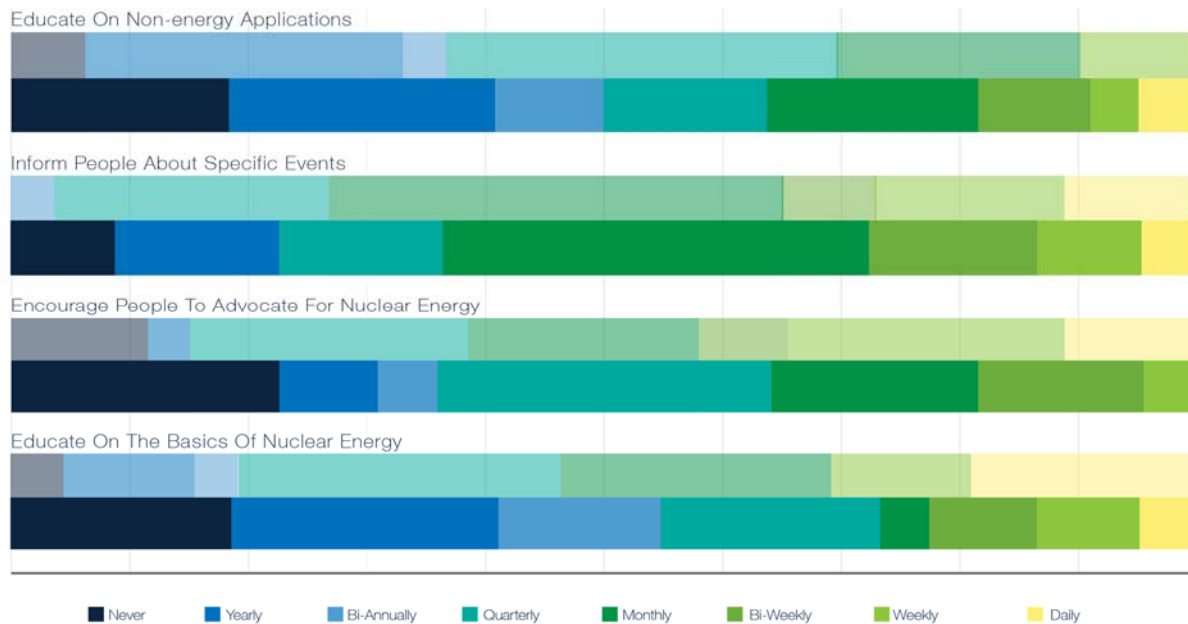
Regional Approaches Are Emerging

Responses to questions on the use of various communications tactics revealed regional differences on how communicators in Asia handle advocacy compared to those in the Americas. As shown in Figure 1, respondents from Asia reported that they either do not or infrequently encourage people to advocate for nuclear energy or educate others about it. In comparison, respondents from the Americas reported more frequent use of these tactics. Communicators in Asia appear to be doing more information delivery and event promotion than those in the Americas. Furthermore, respondents from Asia indicated they do not talk as frequently about the non-energy applications of nuclear or discuss specific events as do respondents from the Americas.

Answers to questions on perceived audience attitudes revealed that PNC members feel their complex information is reaching its mark. Survey respondents believe business leaders, government officials, international organizations and regulators are largely informed on nuclear issues, and are neutral/positive in their attitudes towards nuclear energy.

However, respondents believe that the general public and media are misinformed on nuclear issues, and hold negative feelings toward nuclear. They also believe the general public is fearful, but the media is interested.

Figure 1: Responses to Question 4 - Indicate how frequently you or your staff perform the following communication tasks. Responses from Asia are represented by bolder colors; responses from the Americas are represented by lighter colors.

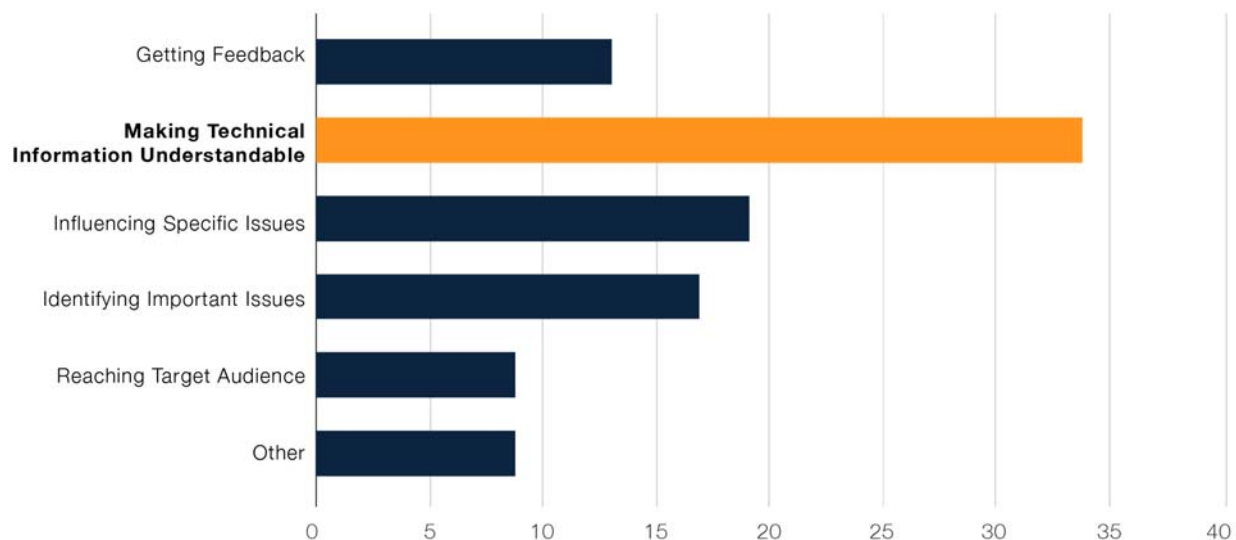


Technical Information Remains a Barrier

A large number of PNC-PCG survey respondents (34 percent) reported that making technical information understandable to nontechnical audiences is their greatest barrier. Combining this with data collected in the 2014 PNC-PCG survey, where 43.7 percent of respondents reported this same issue, it is clear this topic continues to be a concern among PNC members.

Other top concerns from survey respondents include effectively influencing their audiences on key issues, identifying what issues are most important, and getting feedback from their audiences.

Figure 2: Responses to Question 17 - Choose the greatest challenge you face when communicating about nuclear energy issues.



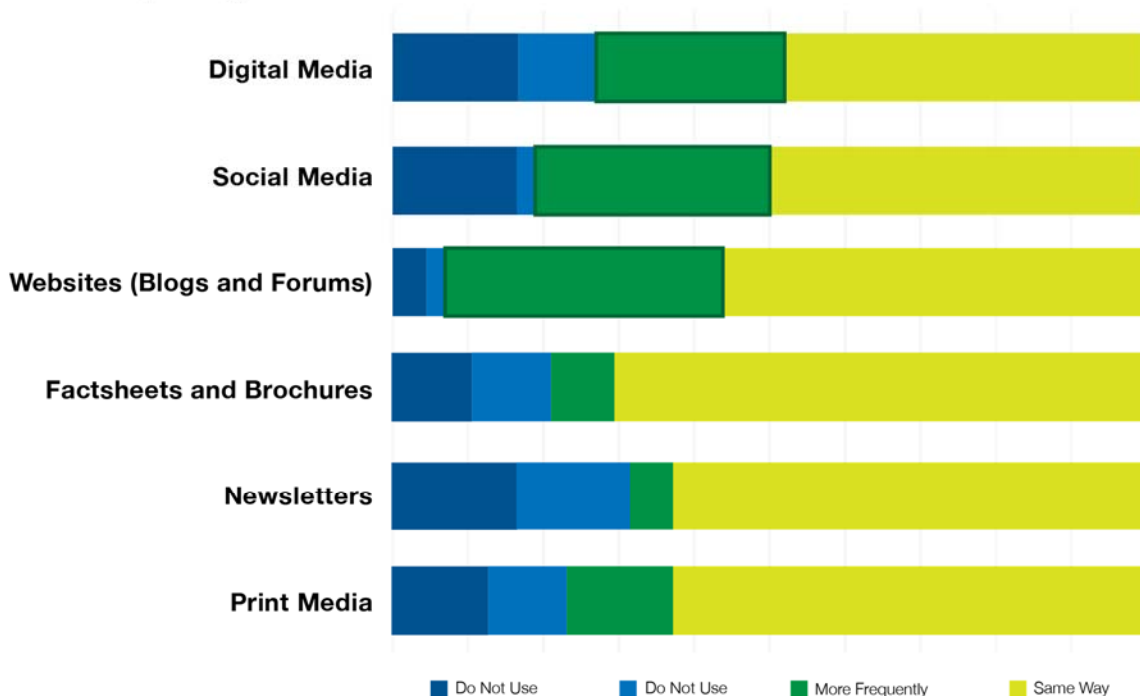
Tactics Are Moving from Print to Palm

In the five years since the Fukushima incident, the pace of communications on nuclear energy has slowed. After a “frenzy” of interest and negative opinions directly after the accident, public opinion has begun to swing back in favor of nuclear energy. According to the International Atomic Energy Agency’s [2015 Report on Climate Change and Nuclear Power](#), public acceptance of nuclear energy is slowly recovering in some countries, following a global decline in approval after the 2011 Fukushima Daiichi accident.

As the results of the PNC-PCG survey show, communicators are adjusting their strategies in response to this shift. PNC members are now working on longer timescales and building their online relationships with key audiences.

As can be seen in Figure 3, respondents indicated that they continue to utilize more digital, online and social media options, instead of traditional print media and newsletters. By shifting to more digital and online communications tools, and taking more advantage of their own organization’s websites, blogs and forums, PNC members are able to bypass the misinformation they perceive in the media to reach the public directly through the platforms they use the most (blogs, social/digital media).

Figure 3: Responses to Question 6 - How often do you or your staff plan to use the following communications tools in the following year?



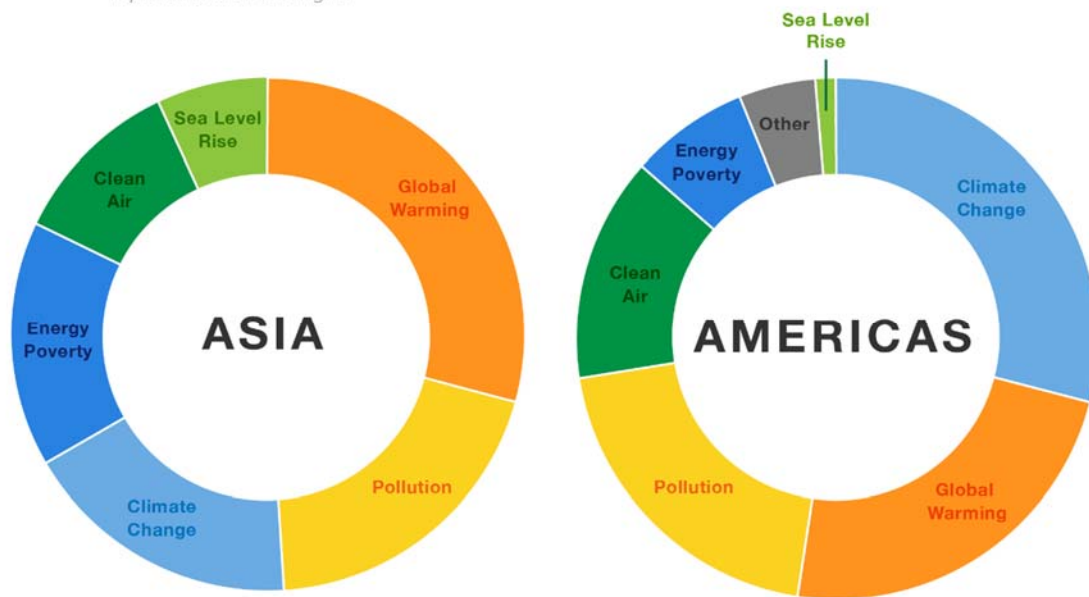
Climate Issues Present Opportunities and Challenges

In the 2014 PNC-PCG survey, climate change emerged as a highly rated topic of interest. As a result, two questions were added to the 2016 survey to explore PNC members' perceptions of nuclear energy's connection to climate change and the environment.

Nearly all respondents (95 percent) refer to the "carbon-free" and "low-carbon" benefits of nuclear, while less than 30 percent refer to its "clean air" benefits, and only 9 percent associate nuclear with being "green." More than 30 percent of respondents believe nuclear energy's role in combatting climate change is an important emerging issue in their country. A majority of respondents (70 percent) indicated they most frequently discuss global warming or climate change alongside nuclear energy. Fifty-five percent of respondents also discuss pollution when talking about nuclear energy.

However, regional differences are apparent among PNC members. Respondents in Asia favor the term "global warming," while respondents in the Americas prefer "climate change." These types of differences in language can present challenges to communicators as they seek common language to demonstrate the benefits of nuclear energy to a global audience.

Figure 4: Responses to Question 12 – Mark the environmental issues discussed most often in connection with nuclear energy. Responses from Asia are represented on the left; responses from the Americas are represented on the right.



Nuclear Energy Communications Continue to Evolve in Pacific Rim Nations

Overall, it is clear that nuclear energy communications in Pacific Rim nations are becoming more strategic, as communicators look to longer-term strategies. Regional differences in communications tactics reflect regional preferences in information delivery channels. The move to digital and social media enables communicators to directly reach target audiences without an institutional or media filter. These factors – along with continued emphasis on making technical information understandable – will improve the effectiveness of nuclear energy communications programs.

ABOUT THE SPONSORS

The Pacific Nuclear Council (PNC) is composed primarily of nuclear societies and associations from nations around the Pacific Rim. Its mission is to unite Pacific Rim professional societies and associations, to get together in common programs, to work together on common issues, and to provide a forum for the transfer of information between nations more advanced in nuclear science to those beginning the search for the benefits of nuclear science and technology. www.pacificnuclear.net

Potomac Communications Group, Inc. (PCG) serves clients in the nuclear energy and science, engineering, electrical energy, and infrastructure industries. Over more than 30 years, PCG has evolved into a full-service agency helping corporate, government and association clients with their most demanding communications challenges. PCG's team consists of a staff of about 25 experts in Washington, D.C., as well as a dozen associates around the world who offer special contacts and skills that add to the company's services. www.pcgpr.com

For more information about the study, contact Sarah Dirndorfer at sdirndorfer@pcgpr.com.

APPENDIX: SAMPLE QUESTIONNAIRE

Nuclear Energy Communications in the Pacific Basin

This survey is conducted jointly by the Pacific Nuclear Council (PNC) and Potomac Communications Group, Inc. (PCG). Results will be presented at the 2016 Pacific Basin Nuclear Conference in April.

The survey consists of eight (8) brief sections and should only take a few minutes to complete. Thank you for your participation.

Demographic Information

1. Where are you located?

- Africa
- Asia
- Australia
- Europe
- North America
- South America

2. Where do you work?

- Government
- Non-Governmental Organization (NGO)
- Academia
- Utility or Vendor
- Other: _____

3. What title best describes your role?

- Executive
- Analyst
- Researcher
- Engineer
- Public Relations Professional
- Government Relations or Affairs Professional
- Legislator or Legislative Assistant
- Other: _____

Your Communications Activities

4. Indicate how frequently you or your staff perform the following communication tasks.

	Never	Yearly	Bi-Annually	Quarterly	Monthly	Bi-Weekly	Weekly	Daily
Educate on the basics of nuclear energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourage people to advocate for nuclear energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provide information on energy production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inform people about specific events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explain complex technical issues or research related to nuclear energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educate on non-energy nuclear applications, such as medical or industrial uses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. How often do you or your staff create content for the following communications tools?

	Never	Yearly	Bi-Annually	Quarterly	Monthly	Bi-Weekly	Weekly	Daily
Print Media (newspapers, magazines)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Media (blogs, online forums)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Media (Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organization's websites, blogs and forums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Factsheets and Brochures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Newsletters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits and Conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. How often do you or your staff plan to use the following communications tools in the following year?

	I do not use	Less frequently	Will use the same way	More frequently
Print Media (newspapers, magazines)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Digital Media (blogs, online forums)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Media (Facebook, Twitter)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My organization's websites, blogs and forums	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Factsheets and Brochures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Newsletters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exhibits and Conferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Communicating with Your Key Audiences

7. What audiences do you give the most priority in your external communication activities?

Select all that apply.

- General Public
- Media
- International NGOs
- Government Officials
- International Organizations
- Regulators
- Business Leaders
- Customers

**8. For the audiences you selected above, what is their current attitude towards nuclear energy?
Rank only the key audiences selected above.**

	Not My Audience	Very Negative	Negative	Neutral	Positive	Very Positive
General Public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Media	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International NGOs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government Officials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Leaders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. When you or your staff communicate about nuclear energy, how would you describe the people with whom you communicated with? Rank only the key audiences selected above.

	Not My Audience	Informed	Mis-informed	Confident	Fearful	Interested	Indifferent
General Public	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Media	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International NGOs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government Officials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulators	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Leaders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Perceptions of Nuclear Energy

10. Please mark the three (3) benefits associated with nuclear energy that you discuss most frequently with your key audiences.

- Creates jobs, helps the economy
- Does not pollute the environment
- Enables leadership in science and energy
- Generates carbon-free electricity
- Mitigates climate change
- Offers energy independence
- Operates without interruption
- Provides a secure supply of electricity
- Provides low-cost energy for consumers
- Provides reliable electricity
- Reduces dependence on fossil fuels
- Reduces the need for less efficient fuels
- Other: _____

11. Please mark the three (3) issues associated with nuclear energy that you discuss most frequently with your key audiences.

- Cost and financing for projects
- Emergency preparedness
- Health effects
- Natural disaster protection
- Nuclear weapons proliferation
- Pollution in the local environment
- Reactor safety
- Regulations
- Terrorism
- Waste disposal
- Other: _____

12. In conversations with your key audiences, which of the following environmental issues are discussed most often in connection with nuclear energy? Select all that apply.

- Climate change
- Global warming
- Pollution
- Clean air

- Sea level rise
- Energy poverty
- Other: _____

13. In your country, which of the following phrases are associated with nuclear energy technologies? Select all that apply.

- "Green"
- Environmentally friendly
- Clean air energy
- Carbon-free
- Low-carbon
- Other: _____

Opinions of Your Key Audiences

14. How have the opinions of your key audiences changed since the Fukushima disaster? Rank the impact on each of the following topics.

	More negative than before	No change	More positive than before
Operation of current reactors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Continuing operation of existing reactors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
License extension of existing reactors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
New reactor construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research reactors in operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advanced nuclear reactor research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Advanced nuclear reactor construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industrial use of nuclear materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Medical uses of nuclear materials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Government investment in nuclear projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public-private cooperation on nuclear projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Effective Tactics

15. Rank each of the following communication tactics by how effective you believe it is in helping maintain public confidence in nuclear energy in your country.

Implement an effective crisis communications plan in an emergency

	1	2	3	4	5	
Not Effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Effective

Counteract misleading or incorrect information about scientific issues

	1	2	3	4	5	
Not Effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Effective

Foster local support for nuclear energy projects

	1	2	3	4	5	
Not Effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Effective

Receive support from international bodies like the IAEA

	1	2	3	4	5	
Not Effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Effective

Generate favorable traditional, digital and social media coverage

	1	2	3	4	5	
Not Effective	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Very Effective

Emerging Issues

16. What do you see as emerging issues in your country? Rank each of the following topics by how important you believe it will be within the next two (2) years.

Cost of building nuclear reactors

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Waste management

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Nuclear's role in combatting climate change

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Investing in advanced nuclear technologies

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Public-private collaboration on nuclear technologies

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Government investment in nuclear energy

Not Important	1	2	3	4	5	Very Important
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Final Questions

17. Choose the greatest challenge you face when communicating about nuclear energy issues.

- Reaching your target audience
- Identifying the issues that are most important to your audience
- Influencing on specific issues
- Making technical information understandable
- Getting feedback from your audience
- Other: _____

18. Based on your experience, please share a "best practice" that could benefit others communicating about nuclear energy. Please limit your response to 400 characters.

If you would like to receive a copy of the PNC-PCG summary report, let us know how to reach you. In the box below, please supply your name (first and last), organization, country and email address. Your information will remain confidential.

Thank you for participating in the Pacific Nuclear Council's online survey. Please return it to sdirndorfer@pcgpr.com. Please share this form with any colleagues who may also have experiences to share. Results of this survey will be made available at the 2016 Pacific Basin Nuclear Conference in April.