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Stakeholder Engagement for Nuclear Power - Webinar 2

An ISTC Webinar @ 24th March 2021

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Hello & Good Morning 2nd ISTC Webinar Participants



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Conveying the Message- The Present Scenario



Milestone in the Development of a National Infrastructure for Nuclear Power - Snapshot on Stakeholder Engagement

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Explain the Government's interest in Nuclear Power, the Potential Benefits & Risks

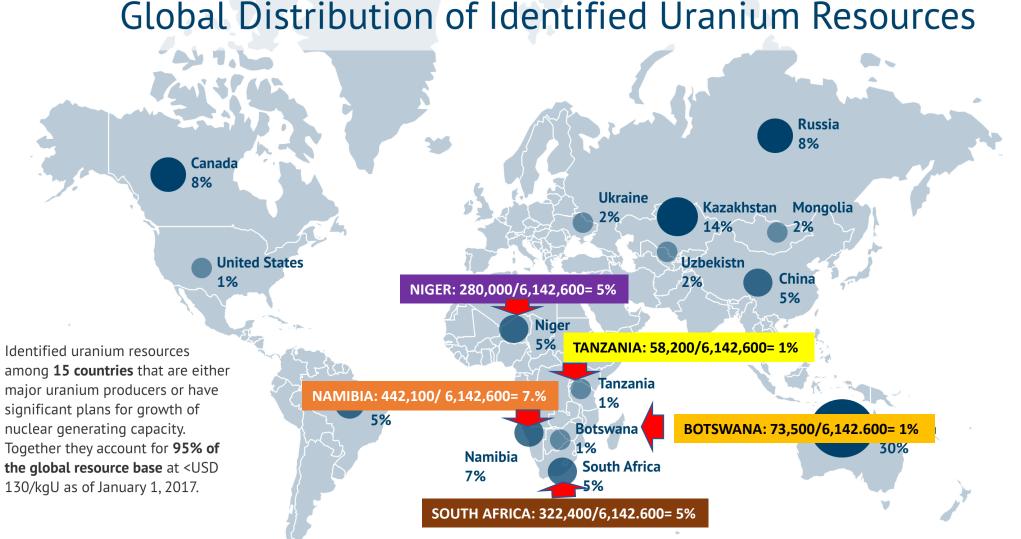


- Develop and implement a Plan of Interaction with all stakeholders including neighbouring countries
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Although global demand for nuclear power is projected to grow, especially in East Asia and the Middle East, that's not necessarily good news for uranium mining and trade. The OECD Nuclear Energy Agency and International Atomic Energy Agency produce a biannual Red Book, assessing the state of world supply in uranium.

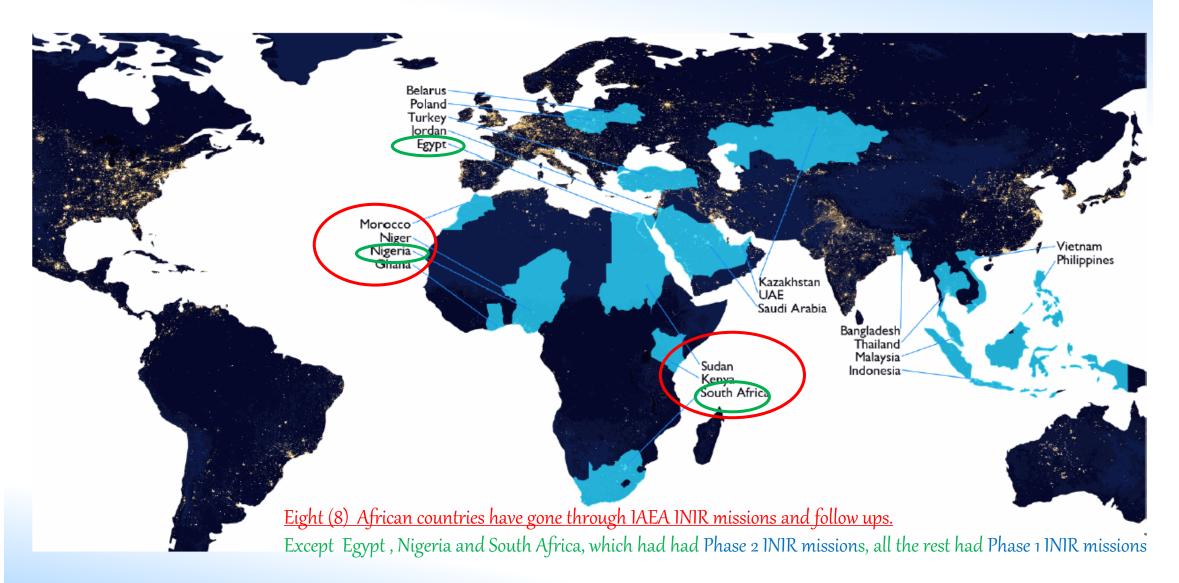
The 2018 Red Book indicated that identified recoverable uranium resources are sufficient to power the global nuclear reactor fleet at 2016 levels of installed nuclear capacity for the next 130 years.



Africa's Nuclear Power Ambition

1b

30 INIR Missions in 21 Member States (2009-2020)



1C

Africa's Nuclear Power Ambition

in 2030

Africa's NPP Ambitions 1. Algeria 8. Nigeria About 12 African countries are currently considering adding nuclear power into 9. Sudan 2. Egypt their generation mix and are at various stages of nuclear power infrastructure 3. Ghana 10. Tunisia 11. Uganda 4. Kenya development. 12. Zambia 5. Morocco 6. Namibia 7. Niger *Countries undertaken INIR **Mission with IAEA Current &** 14.Morrocco expected Morocco Egypt electricity generation 1.Algeria 4.Egypt of African Ghana countries considering 15.Nigeria introducing 10. Kenya nuclear energy in 2015 Zambia Unit: Terawatt hour (TWh) Source: International Energy Agency Uranium Resources source: International Energy Agency (IEA) 1. Bostwana (1%) 2. Malawi 3. Namibia (7%) 4. Niger (5%) 5. South Africa (5%) source: America's Role in Global Nuclear Innovation-The Once and Future King ? By Jessica Lovering 6. Tanzania (1%) Director of Energy, The Breakthrough Institute, The Breakthrough Blog May 09, 2017

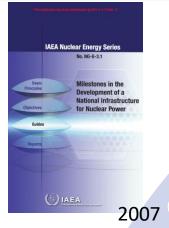
IAEA's Milestones Approach — a methodology that guides countries and organizations to work in a systematic way towards the introduction of nuclear power, research reactor operations and ???

2015



2a

IAEA Nuclear Energy Serries No.NG-G-3.1, 2007



The IAEA published its *Milestones in the Development of a National Infrastructure for Nuclear Power identifying three phases of Consider Prepare and Construct to support Member States in Preparing to launch a Nuclear Power Programme (NPP)* IAEA Nuclear Energy Serries No.NG-G-3.1 (Rev 1), 2015

> ALEA Nuclear Energy Series No. NG-0-3.1 (Rev. 1) Basic Principles Development of a National Infrastructure for Nuclear Power

2012 The IAEA published the Specific Considerations and *Milestones* for a Research **Reactor Project** *identifying three* phases of consider prepare and *construct* to help national authorities prepare better for safe, secure, sustainable research reactor operations

The IAEA published its Milestones in the Development of *a* National Infrastructure for Nuclear Power *identifying three* phases of Consider **Prepare** and Construct to support Member States in Preparing to launch a Nuclear Power Programme (NPP)

2021?

IAEA is

schedule to publish a Guidance Document to Apply the Milestone Approach for Uranium Production

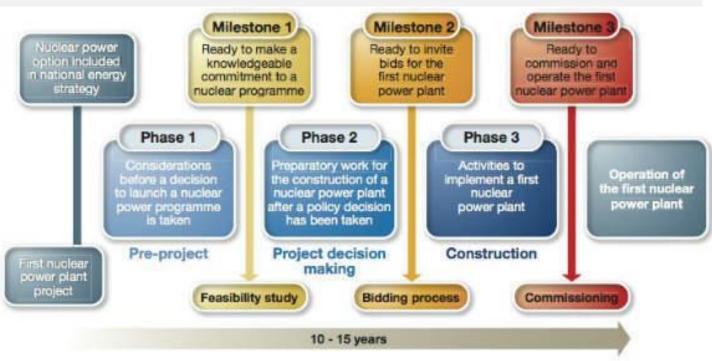
The IAEA has developed the 'Milestones Approach' a three-phase process for developing the necessary infrastructure for a nuclear power programme and Research reactor operations

2b Milestone in the Development of a National Infrastructure for Nuclear Power, IAEA

The Milestones Approach comprises three phases for the development of a national infrastructure for nuclear power.

The Milestones approach includes 19 nuclear infrastructure issues which require specific actions during each of the three phases. Completion of the actions for a phase represents the achievement of the associated milestone.

At each phase, nineteen infrastructure issues need to be considered.



Source: Milestones in the Development of a National Infrastructure for Nuclear Power, IAEA Nuclear Energy Series, No. NG-G-3.1 (Rev 1), 2015

The required infrastructure includes not only facilities and equipment, but also the human and financial resources and the legal and regulatory framework within which the programme will be carried out. Essentially, the same infrastructure is needed whether the programme is planned for the production of electricity, for seawater desalination or for any other peaceful purpose.

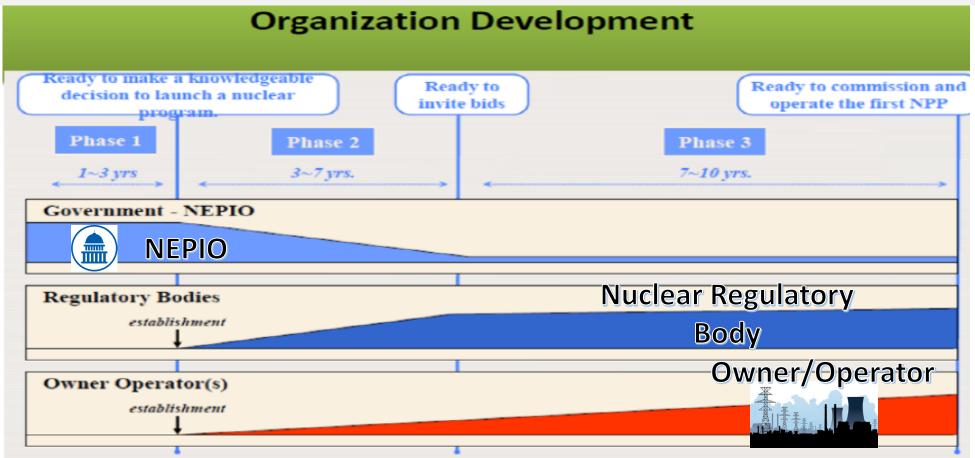


Key Organizations involved in Nuclear Power Planning

Numerous organizations are involved in a nuclear power programme **,** however, three entities play a fundamental role to ensure that the programme is implemented in a safe, secure and cost-effective manner: the government, the regulatory body (or regulatory bodies) and the owner/operator;

Each has a specific role to play, with responsibilities changing as the programme advances.

3a



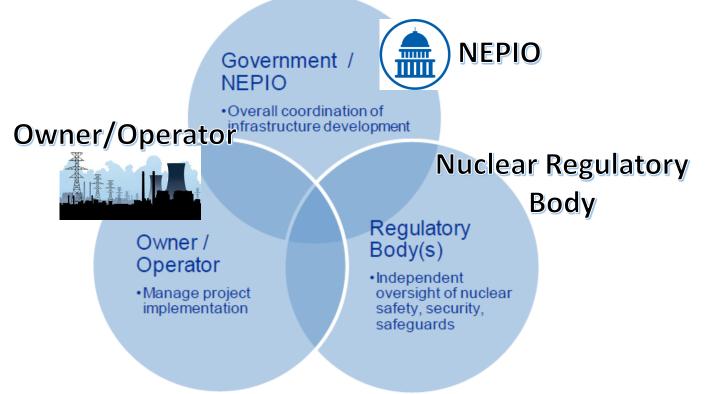


Milestone in the Development of a National Infrastructure for Nuclear Power, IAEA -Organization development

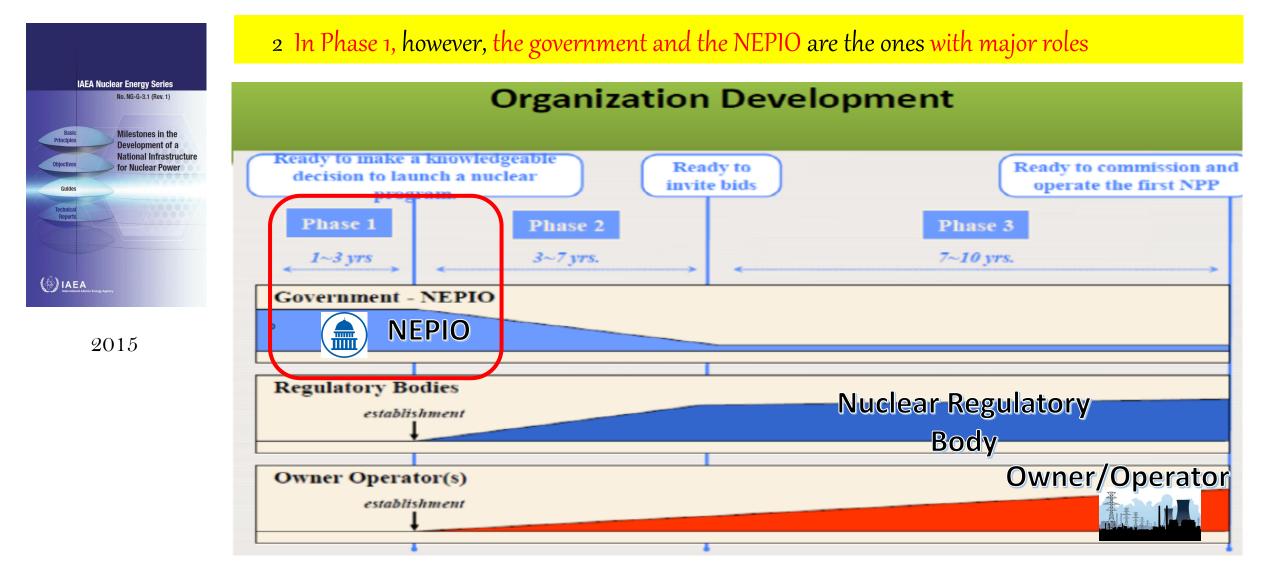
Three key organizations In the development of the nuclear infrastructure, three key organizations are involved: the government,

the owner/operator of the nuclear power plant and the regulatory body.

All three organizations are needed for a safe, secure and sustainable nuclear power programme

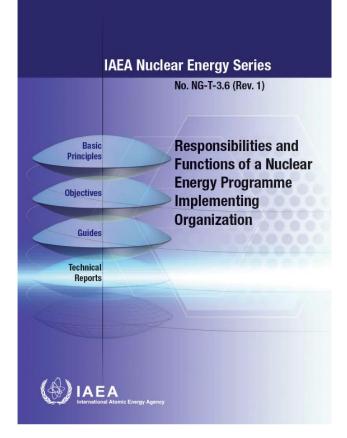


Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme



4a

NEPIO's Key Role in Stakeholder Engagement in Phase 1- A Snaphot

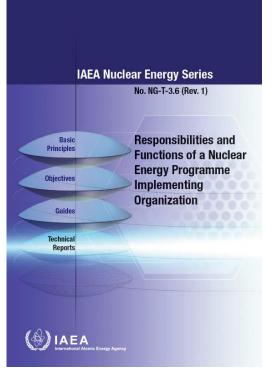


During Phase 1 of nuclear power infrastructure development, the NEPIO should be the lead organization guiding the country to Milestone 1, where the State will be in a position to make a knowledgeable commitment to a nuclear power programme.

The NEPIO has an important responsibility to identify the obligations and activities necessary to implement an effective, safe, secure and peaceful nuclear power programme.

This requires the NEP1O to ensure overall coordination and the engagement of all important stakeholders.





The main responsibilities of a NEP1O in Phase 1 are as follows:

— Identify the expertise needed to fulfil all functions and responsibilities assigned to the NEPIO (see Section 4.1) and identify where, how, when and under what conditions such expertise can be obtained;

— Establish working groups to coordinate the preparation of pre-feasibility studies evaluating various aspects of introducing nuclear power (many States assign working groups responsibility for a cluster of issues; see Annexes 1–V for examples);

— Prepare a strategy and plan for stakeholder involvement, including public communication, and implement the plan in consultation with the relevant agencies, opinion leaders and key stakeholder groups;

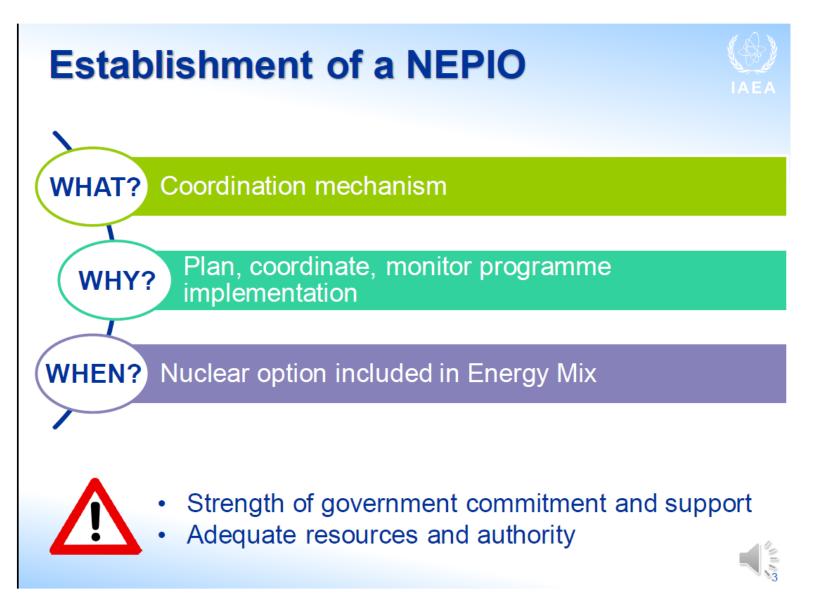
— Prepare a notional schedule and timeline for the development of the national infrastructure for nuclear power and implementation of the first nuclear power project (some States refer to this document as a roadmap); 5

— Prepare a comprehensive report defining and justifying a national strategy for nuclear power that includes an assessment of the national capacity related to each of the 19 infrastructure issues and a plan to guide the implementation of the programme;

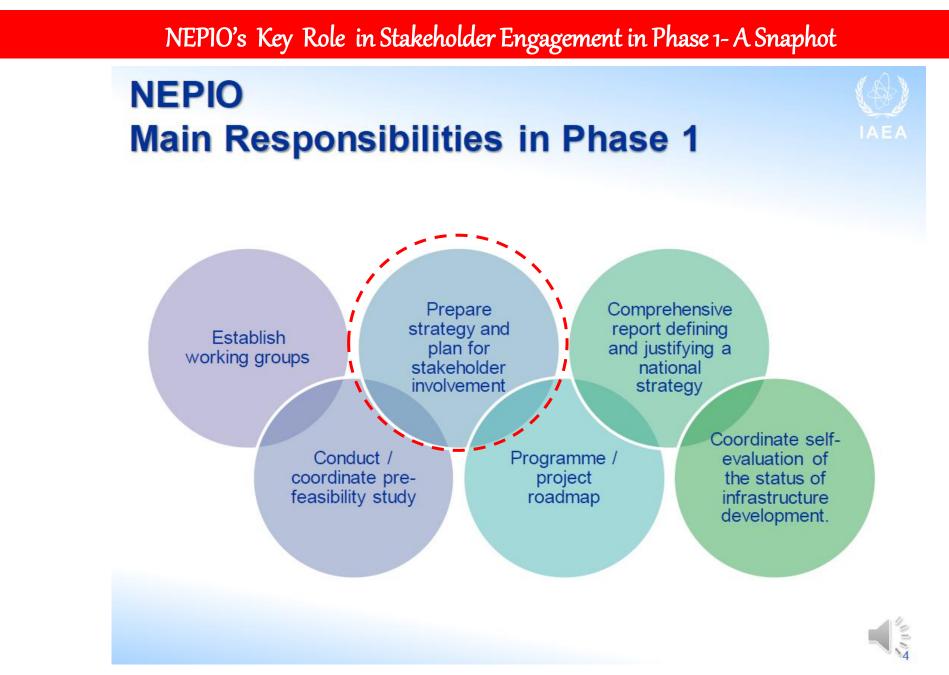
— Coordinate a self-evaluation of the status of national nuclear power infrastructure development



NEPIO's Key Role in Stakeholder Engagement in Phase 1- A Snaphot



Source: Responsibilities and Functions of a Nuclear Energy Programme Implementing Organization (NEPIO) Thibaud Reysset, Department of Nuclear Energy, IAEA



Source: Responsibilities and Functions of a Nuclear Energy Programme Implementing Organization (NEPIO) Thibaud Reysset, Department of Nuclear Energy, IAEA

4d

The public has the right to be concerned about your project, to ask questions about it, and even to oppose it.

But every person should have the correct information to form her or his opinion.

Meaningful consultation that involves ongoing two-way communication with a project representative increases understanding, clarifies the community's preferences and values, and allows the proponent to understand how the public's views can and should lead policy decisions.

However, organizations often struggle with communication with their stakeholder groups.

- People need information
- Avoid misinformation
- Build certainty and trust

Develop a multifaceted
 2 way communications plan

- Ensure consistent & constant messaging
- Don't avoid tough conversations

- Be visible & accessible don't hide
- Be open, honest, and transparent
- Use formal and informal communication channels

6

Milestone in the Development of a National Infrastructure for Nuclear Power, IAEA - Stakeholder Engagement: A Snapshot

Stakeholder involvement is one of the 19 infrastructure issues covered in the IAEA's Milestones approach, a structured guidance document that Member States use for the development of infrastructure for a nuclear power programme

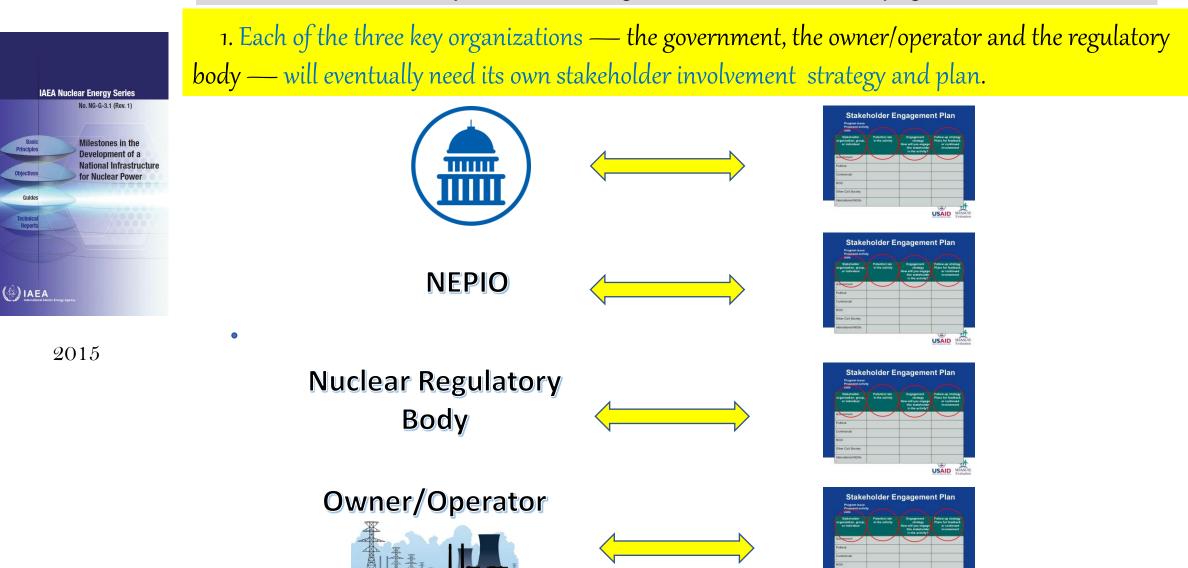
Issues	Milestone 1		Milestone 2		Milestone 3				
National position									
Nuclear safety									
Management									
Funding and financing									
Legislative framework									
Safeguards									
Regulatory framework		s							
Radiation protection		Conditions			Conditions			Conditions	
Electrical grid		ndit			ndit			ndit	
Human resources development		S			Co			Co	
Stakeholder involvement									
Site and supporting facilities									
Environmental protection									
Emergency planning									
Security and physical protection									
Nuclear fuel cycle									
Radioactive waste									
Industrial involvement									
Procurement									

SUMMARY OF CONDITIONS TO ACHIEVE THE MILESTONES

Infrastructure issue	Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme	Milestone 2 — Ready to invite bids for the first nuclear power plant	Milestone 3 – Ready to commission and operate the first nuclear power plant
3.9 Electrical grid	 Study of compatibility of nuclear power in the nation's development strategy conducted by NEPIO Electrical grid requirements considered 	 Detailed studies to determine grid expansion, upgrade or improvement undertaken Plans, funding and schedule for grid enhancement exist 	 Plans for grid enhancement executed Grid ready to support commissioning and operation of a nuclear power plant
3.10 Human resources development	 Knowledge and skills needed to support a nuclear programme identified by NEPIO Plan to develop and maintain the human resource base developed 	 Initial education and training for remaining human resources for plant operation started and financial resources committed 	 All human resources to commission and operate the first nuclear power plant are in place Education and training programmes for continuing flow of qualified people are underway
3.11 Stakeholder involvement	 Open and timely interaction and communication regarding the nuclear programme addressed from the beginning Strong public information and education programme initiated by government and NEPIO 	 Public information and education programme developed by all involved organizations 	 Reasonably credibility with stake- holders and public established Communication efforts through construction and preparation for operation continued Socio-political involvement maintained
3.12 Site and supporting facilities	 General survey of potential sites, conducted by NEPIO Possible sites identified 	 Detailed site characterization performed Suitable sites for bid selected 	 All site services and provisions in place and functional
3.13 Environment al protection	 Unique environmental issues analysed by NEPIO Environmental impacts and improve- ments communicated 	 Environmental studies for selected sites performed Particular environmental sensitivities included in bid specifications 	 Compliance with environmental laws and regulations assured Programmes for monitoring and assessment fully implemented in compliance with international standards

Government & NEP10 has major roles in Stakeholder Engagement in Phase 1 of the 1AEA's Milestone Approach

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme



USAID

Stakeholder Engagement in Phase 1 vis-a-vis the IAEA's Milestone Approach and Roles and Function of NEPIO



3.11.1. Stakeholder involvement: Milestone 1 — Ready to make a knowledgeable commitment to a nuclear power programme

Each of the three key organizations — the government, the owner/operator and the regulatory body — will eventually need its own stakeholder involvement strategy and plan. In Phase 1, however, the government and the NEPIO are the ones with major roles. It is important that they understand the importance of gaining and keeping the confidence of the country and the international community by maintaining open and timely interaction regarding all aspects of the programme.

The government and the NEPIO should begin to address this commitment from the very beginning. Expert consultants in the areas of public communication and education may be employed to assist. However, national leaders are in the best position to understand the social norms of their society and provide the necessary guidance. Effective public communication is a skilled discipline and those involved should receive professional training.

During Phase 1, the NEPIO should take initial steps:

- To conduct surveys to determine the public's knowledge and receptiveness to nuclear power;
- To develop public information tools that respond to the results of the surveys
 and to explain the government's interest in, and the potential benefits from,
 muclear power;
- To develop and begin implementing a plan of interaction with all stakeholders, including neighbouring countries⁹;
- To train senior staff to interact with stakeholders in response to any request.

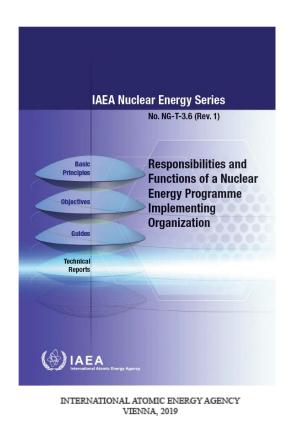
The NEPIO's comprehensive Phase 1 report should take account of the views of stakeholders involved in the Phase 1 process and propose a stakeholder involvement plan based on transparency and openness. This should be designed to make the public and other stakeholders familiar with nuclear technology,

FUNCTIONS AND ACTIVITIES OF A NEPIO IN PHASE 1



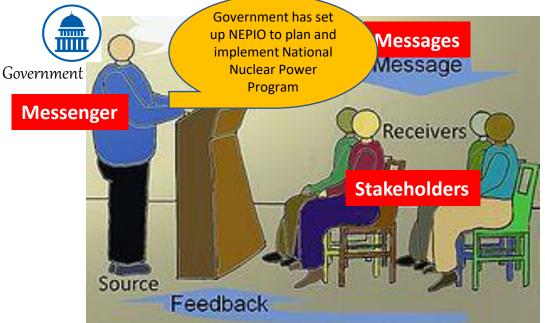
INTERNATIONAL ATOMIC ENERGY AGENCY VIENNA, 2019

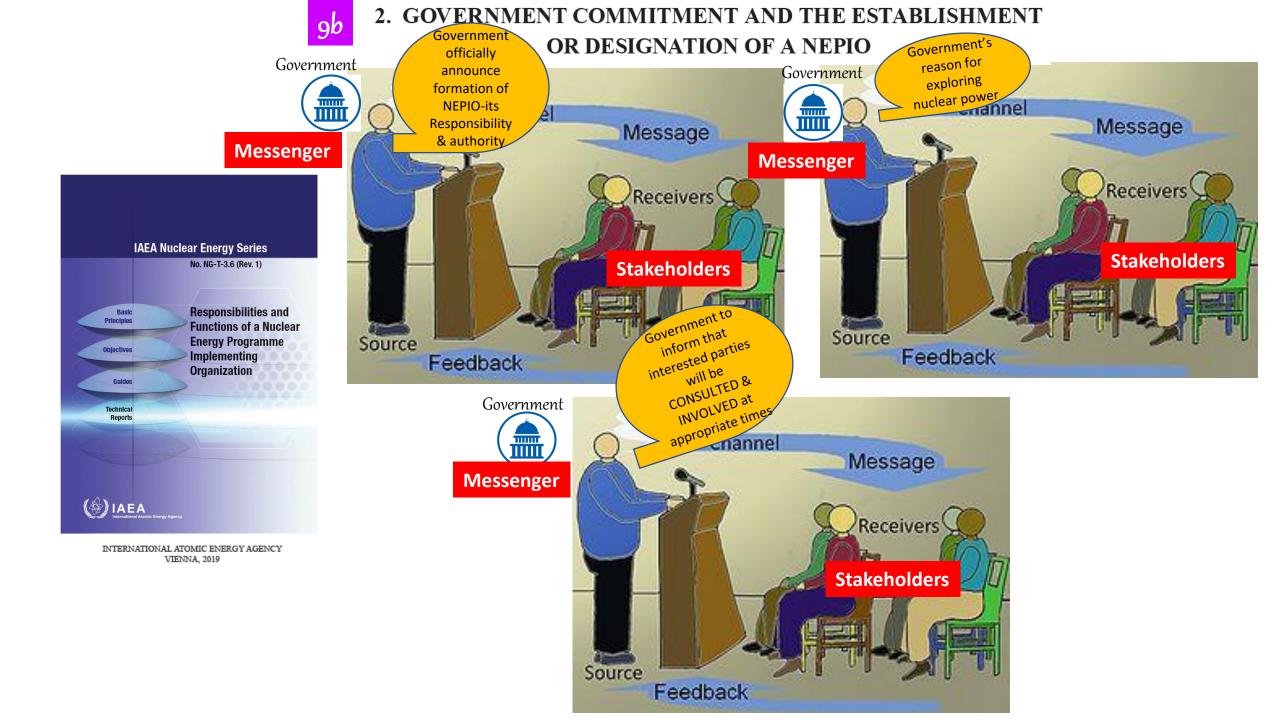
Issue	NEPIO functions		NEPIO activities	
11. Stakeholder involvement	Prepare and implement an open and transparent stakeholder involvement strategy and plan		Understand the importance of gaining and keeping the confidence of the public and the international community by maintaining open and timely interaction regarding all aspects of the nuclear power programme; Secure a clear government mandate to engage with all relevant stakeholders: Ensure a professional communications team is available to the NEPIO; Conduct surveys to establish a baseline of the public's knowledge of and receptiveness to nuclear power; Develop appropriate public information tools that address key issues and identified concerns; Explain the government's interest in nuclear power, the potential benefits and risks, and how the government will ensure safety, security and non-proliferation; Develop and begin implementing a plan of interaction with all stakeholders, including neighbouring countries. Train senior staff to interact with stakeholders.	



The government may issue formal terms of reference stating the NEPIO's authority and responsibilities. These terms of reference should call for a comprehensive review of all 19 infrastructure issues required to enable the government to make and maintain a knowledgeable commitment to a nuclear power programme. All relevant stakeholders, including the country's major utilities; the regulatory body or bodies for security, radiation safety and environmental protection; other relevant government agencies; legislative representatives and other decision makers should be included in the work of the NEPIO. The NEPIO's role in the nuclear power programme should be recognized by all relevant ministries. A critical part of the government's commitment is to ensure that the NEPIO has the human and financial resources necessary to execute all the functions established in its terms of reference.

An official announcement of the establishment of the organization or mechanism functioning as a NEPIO should be made so that all interested parties understand the government's objective and the NEPIO's identity, responsibilities and authority. This announcement might include the government's reasons for exploring nuclear power. It should emphasize that interested stakeholders will be consulted and involved at appropriate times.





FUNCTIONS AND ACTIVITIES OF A NEPIO IN PHASE 1

	Issue	NEPIO functions	NEPIO activities
<complex-block><complex-block></complex-block></complex-block>	11. Stakeholder involvement	Prepare and implement an open and transparent stakeholder involvement strategy and plan	 Understand the importance of gaining and keeping the confidence of the public and the international community by maintaining open and timely interaction regarding all aspects of the nuclear power programme; Secure a clear government mandate to engage with all relevant stakeholders; Ensure a professional communications team is available to the NEPIO; Conduct surveys to establish a baseline of the public's knowledge of and receptiveness to nuclear power; Develop appropriate public information tools that address key issues and identified concerns; Explain the government's interest in nuclear power, the potential benefits and risks, and how the government will ensure safety, security and non-proliferation; Develop and begin implementing a plan of interaction with all stakeholders, including neighbouring countries. Train senior staff to interact with stakeholders.

IAEA Publication on Milestone Approach in the Development of a National Infrastructure for Nuclear Power

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

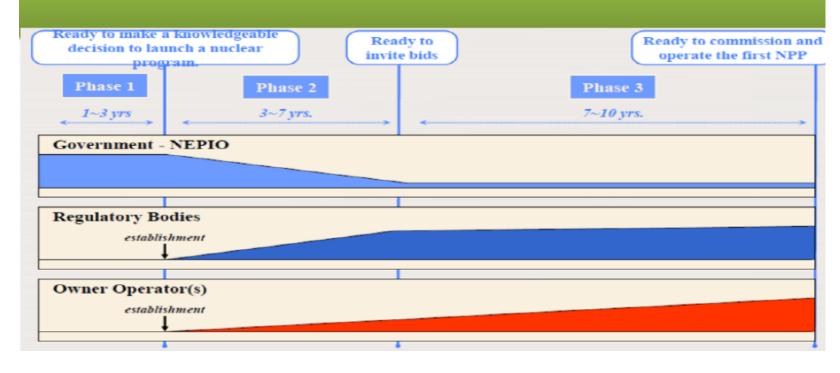
The government and the NEPIO should begin to address this commitment from the very beginning. Expert consultants in the areas of public communication and education may be employed to assist. However, national leaders are in the best position to understand the social norms of their society and provide the necessary guidance. Effective public communication is a skilled discipline and those involved should receive professional training.

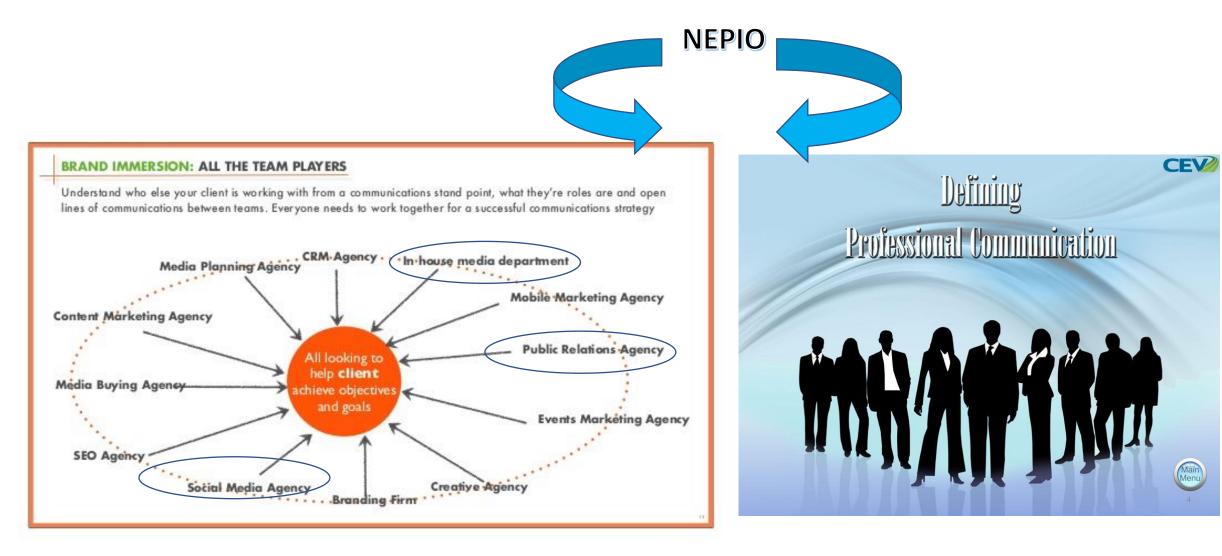
10b



Source: Experts and Consultants, Shwahid Foundation

Organization Development





portant,, Presented at TMKedu by Monique Lemus Source: Defining Professional Communication, Rodger Oliver, slideplayer.com

Source: Communications Planning- What it is and Why it is Important,, Presented at TMKedu by Monique Lemus July 2, 2014. Published in Slideshare The Media Kitchen. 25 August 2014

FUNCTIONS AND ACTIVITIES OF A NEPIO IN PHASE 1

	Issue	NEPIO functions	NEPIO activities
<complex-block><complex-block></complex-block></complex-block>	11. Stakeholder involvement	Prepare and implement an open and transparent stakeholder involvement strategy and plan	 Understand the importance of gaining and keeping the confidence of the public and the international community by maintaining open and timely interaction regarding all aspects of the nuclear power programme; Secure a clear government mandate to engage with all relevant stakeholders; Ensure a professional communications team is available to the NEPIO; Conduct surveys to establish a baseline of the public's knowledge of and receptiveness to nuclear power; Develop appropriate public information tools that address key issues and identified concerns; Explain the government's interest in nuclear power, the potential benefits and risks, and how the government will ensure safety, security and non-proliferation; Develop and begin implementing a plan of interaction with all stakeholders, including neighbouring countries. Train senior staff to interact with stakeholders.

IAEA Publication on Milestone Approach in the Development of a National Infrastructure for Nuclear Power

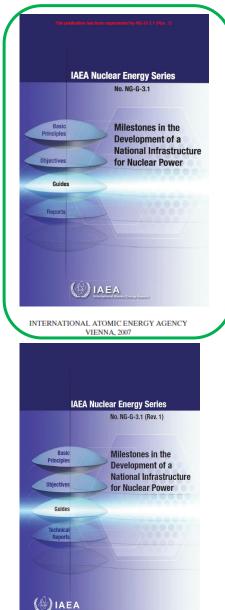
This publication has been superseded by NG-G-3.1 (Rev. 1)

focus based select

overall

asked effort

11b

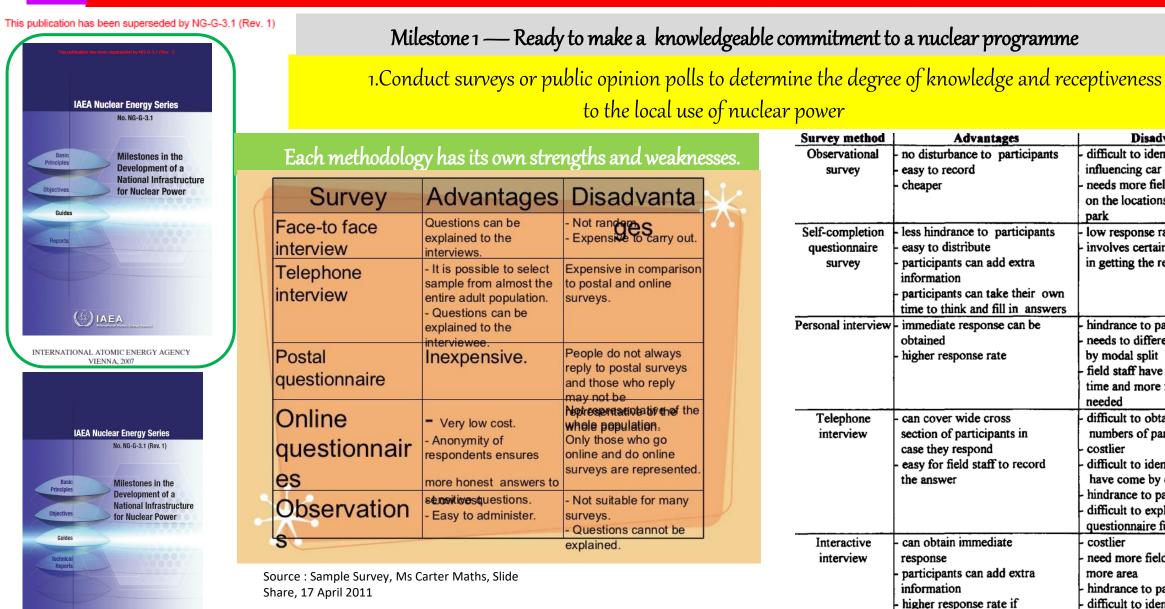


Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

1.Conduct surveys or public opinion polls to determine the degree of knowledge and receptiveness to the local use of nuclear power



IAEA Publication on Milestone Approach in the Development of a National Infrastructure for Nuclear Power **11C**



source: Survey Methods with Advantages and Disadvantages , Sinnapoo Ravindran Research gate

participants are identified

Disadvantages

needs more field staff depending

on the locations of entry to car

involves certain time period

in getting the response

hindrance to participants

needs to differentiate participants

field staff have to spend much

time and more field staff are

difficult to obtain telephone

difficult to identify those who

need more field staff to cover

difficult to identify by modal

numbers of participants

hindrance to participants

hindrance to participants

difficult to explain the

have come by car

questionnaire fully

difficult to identify the factors

influencing car travel

low response rate

by modal split

needed

costlier

costlier

more area

split

park



Method

U.S. Public Opinion About Nuclear Energy

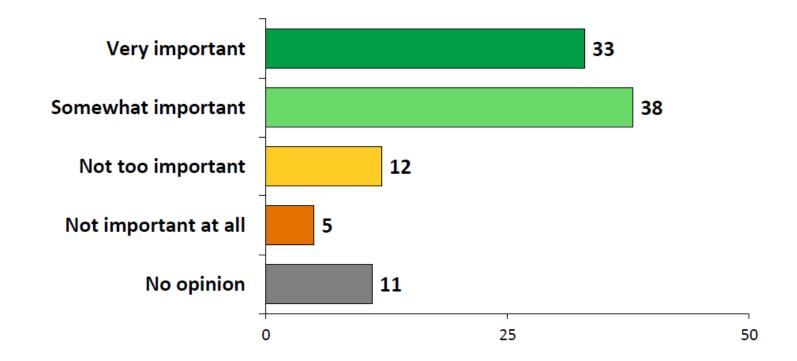
1983-2020

Ann Stouffer Bisconti, PhD Bisconti Research, Inc. www.bisconti.com

- 1,011 nationally representative U.S. adults surveyed online
- June 12-16, 2020
- Bisconti Research with Quest Global Research
- Numbers shown are percentages, which may not add exactly due to rounding

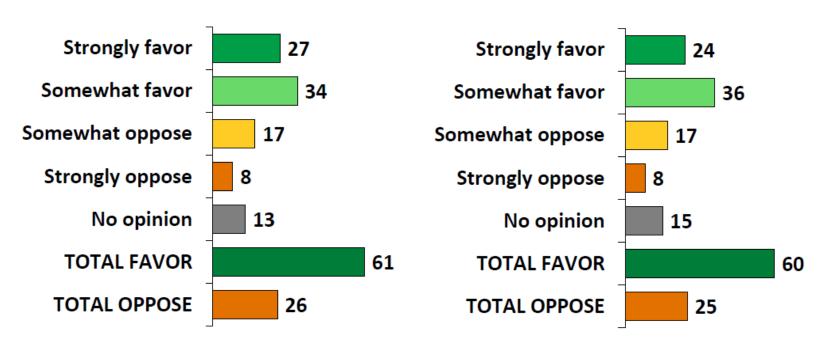
Importance of Nuclear Energy In Meeting US Electricity Needs

How important do you think nuclear energy will be in meeting this nation's electricity needs in the years ahead? Do you think nuclear energy will be very important, somewhat important, not too important, or not important at all? (%)



Favorability to Nuclear Energy Recently Steady

Overall, do you <u>strongly favor</u>, <u>somewhat favor</u>, <u>somewhat oppose</u>, or <u>strongly oppose</u> the use of nuclear energy as one of the ways to provide electricity in the United States? (%)



April 2019

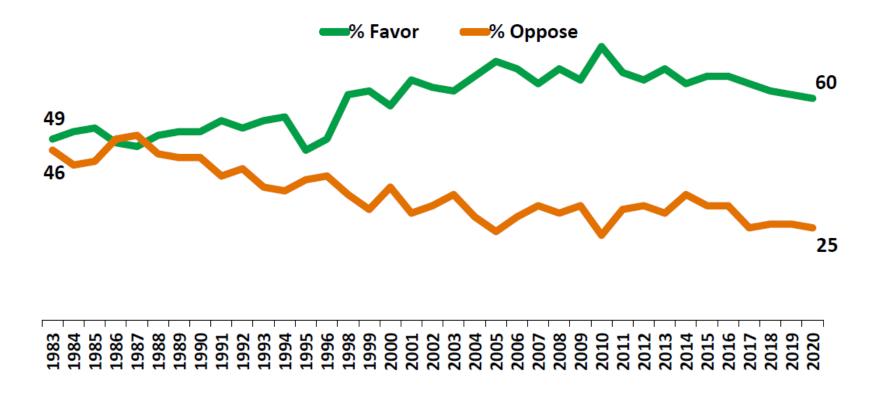
11f

June 2020

11g

Favorability to Nuclear Energy Increased Over Long Term

Overall, do you <u>strongly favor</u>, <u>somewhat favor</u>, <u>somewhat oppose</u>, or <u>strongly oppose</u> the use of nuclear energy as one of the ways to provide electricity in the United States?



Bisconti Research, Inc. survey of U.S. public opinion

Favorability to Nuclear Energy: Demographics

Overall, do you <u>strongly favor</u>, <u>somewhat favor</u>, <u>somewhat oppose</u>, or <u>strongly oppose</u> the use of nuclear energy as one of the ways to provide electricity in the United States? (%)

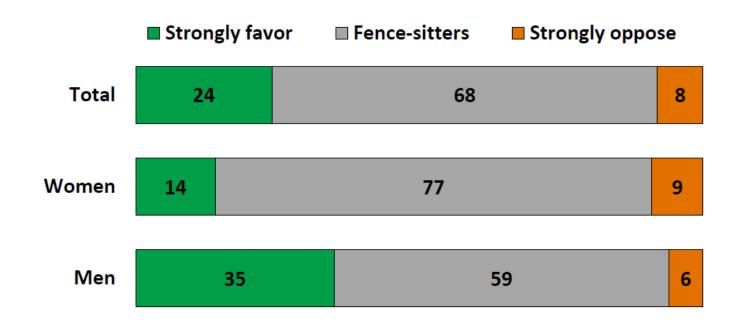
	Favor	e 🛛 🔲 No opinion
TOTAL	60	25 15
Men	71	19 10
Women	49	30 20
Age: 18-34	57	23 19
Age: 35-49	65	19 15
Age: 50+	57	30 13
College graduate	72	20 8
Not college graduate	50	29 20
Democrat	58	33 9
Republican	75	13 12
Independent	55	29 16
Biden likely voters	60	31 9
Trump likely voters	75	15 11

Bisconti Research, Inc. survey of U.S. public opinion, June 2020

11h

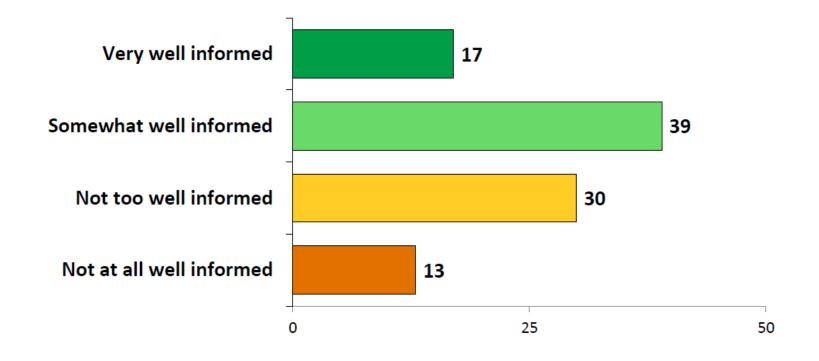
Opinions are Changeable

Overall, do you <u>strongly favor</u>, <u>somewhat favor</u>, <u>somewhat oppose</u>, or <u>strongly oppose</u> the use of nuclear energy as one of the ways to provide electricity in the United States? (%)



Few Feel Very Well Informed about Nuclear Energy

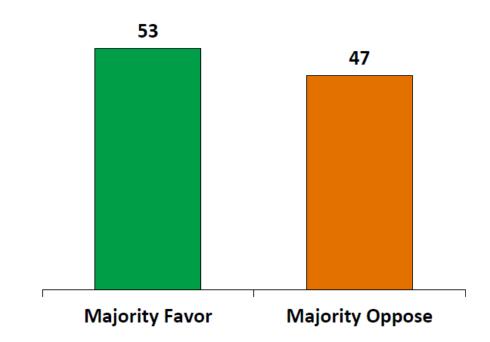
How well informed do you feel about <u>nuclear energy</u> used to produce electricity? (%)



11j

Vanishing Perception Gap: More Now Say Majority Favors Nuclear Energy

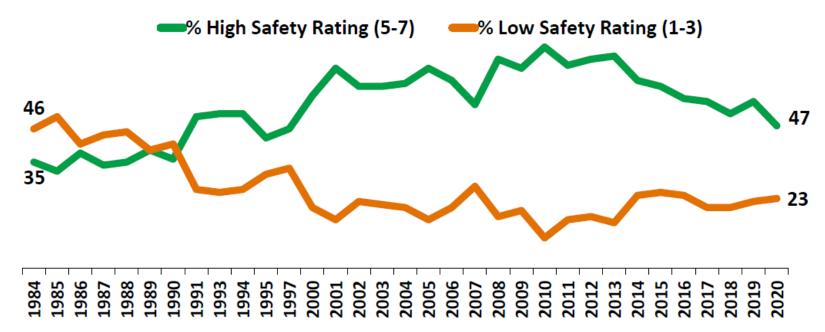
Do you think that the majority of people in your community <u>favor</u> or <u>oppose</u> the use of nuclear energy? (%)



11k

11m Perceptions of Nuclear Plant Safety: 1984-2020

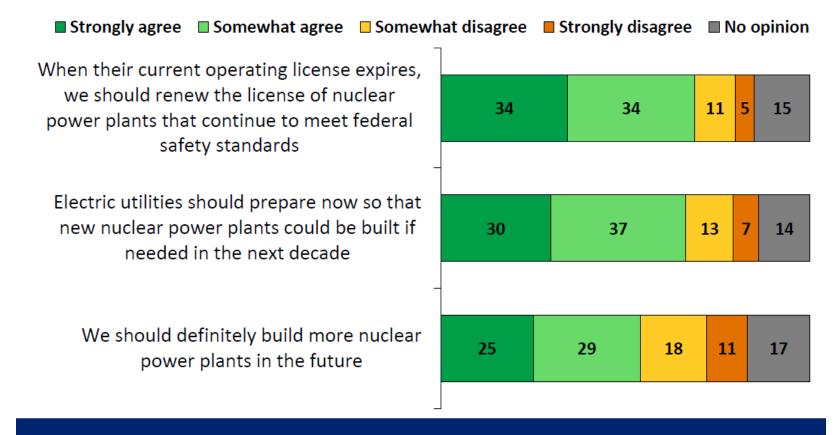
Thinking about the nuclear power plants that are operating now, how safe do you regard these plants? Please select one number on a scale of "1" to "7," where "1" means very unsafe and "7" means very safe. The safer you think they are, the higher the number you would give.



Bisconti Research, Inc. survey of U.S. public opinion

Opinions about License Renewal and New Nuclear Power Plants

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements. (%)

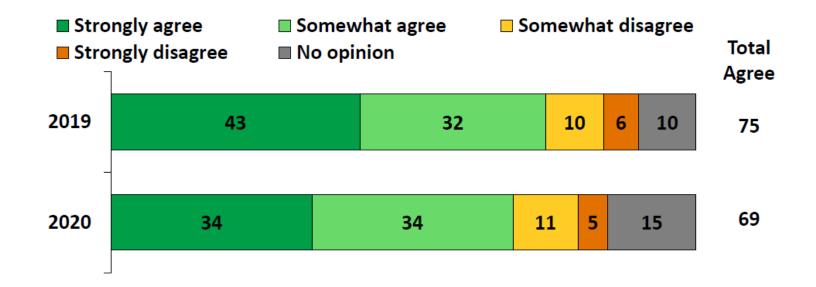


Bisconti Research, Inc. survey of U.S. public opinion, June 2020

Agreement with License Renewal

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

When their current operating license expires, we should renew the license of nuclear power plants that continue to meet federal safety standards. (%)

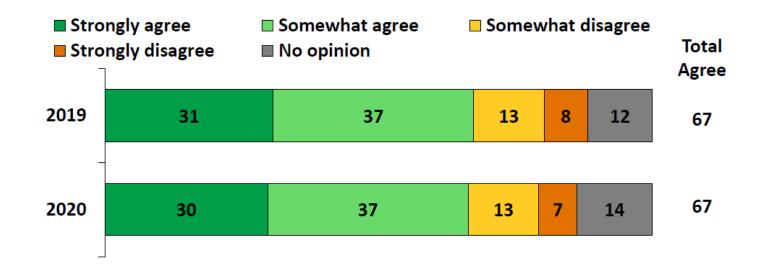


1110

Agreement with New Plants Being Built If Needed

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

Electric utilities should prepare now so that new nuclear power plants could be built if needed in the next decade. (%)

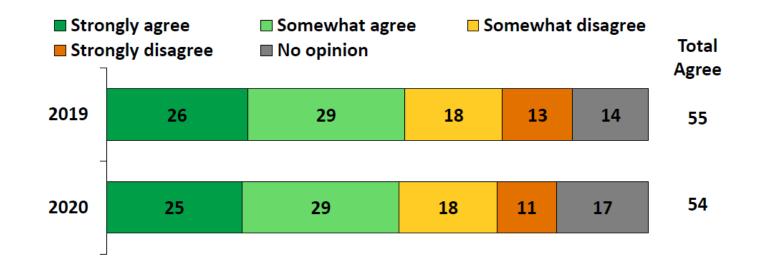


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Agreement with Definitely Build More Plants

Please indicate if you strongly agree, somewhat agree, somewhat disagree or strongly disagree with each of the following statements.

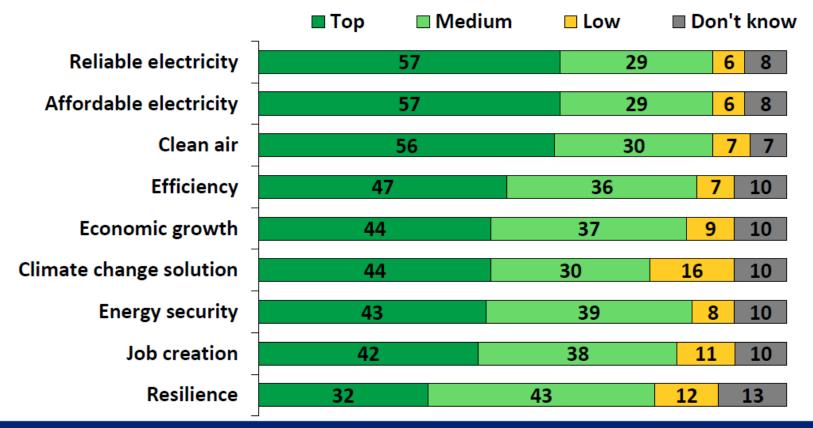
We should definitely build more nuclear power plants in the future. (%)



11r

Considerations for Electricity Production

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (%)



Bisconti Research, Inc. survey of U.S. public opinion, June 2020

Considerations for Electricity Production: Gender and Education

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. **(% Top Importance)**

Reliable electricity	Men	Women		Cupalization
Reliable electricity			Graduates	Graduates
	55	58	61	54
Affordable electricity	54	59	58	56
Clean air	51	61	58	55
Efficiency	47	48	50	46
Economic growth	45	42	48	41
Climate change solution	42	46	49	41
Energy security	44	41	49	38
Job creation	42	41	44	40
Resilience	33	31	35	30

Bisconti Research, Inc. survey of U.S. public opinion, June 2020

Considerations for Electricity Production: Age

Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. **(% Top Importance)**

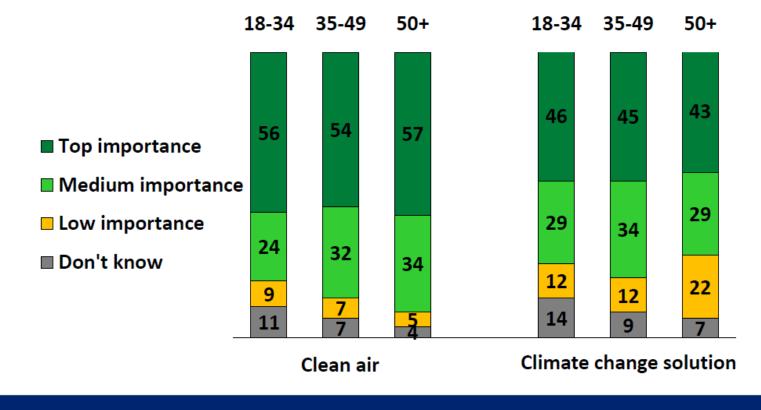
	Age: 18-34	Age: 35-49	Age: 50+
Reliable electricity	45	52	69
Affordable electricity	49	53	66
Clean air	56	54	57
Efficiency	43	46	52
Economic growth	40	50	42
Climate change solution	46	45	43
Energy security	34	43	49
Job creation	42	49	36
Resilience	30	36	31

Bisconti Research, Inc. survey of U.S. public opinion, June 2020

11U

Importance Given to Clean Air and Climate Change Solution: Age

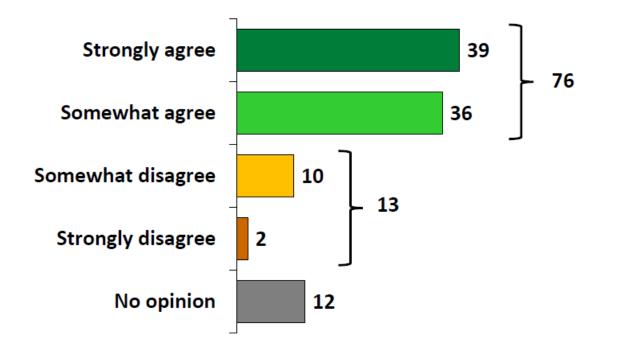
Following are some considerations for the way electricity is produced. For each one, indicate if that consideration for the way electricity is produced is of top importance to you, medium importance to you, or low importance to you. (%)



11V

Support for Carbon-Free Energy Mix, Including Nuclear, Hydro, Renewables

Please indicate if you strongly agree, somewhat agree, somewhat disagree, or strongly disagree with the following statement. We should take advantage of all <u>carbon-free</u> energy sources including nuclear, hydro, and renewable energy to produce the electricity we need while limiting greenhouse gas emissions. (%)

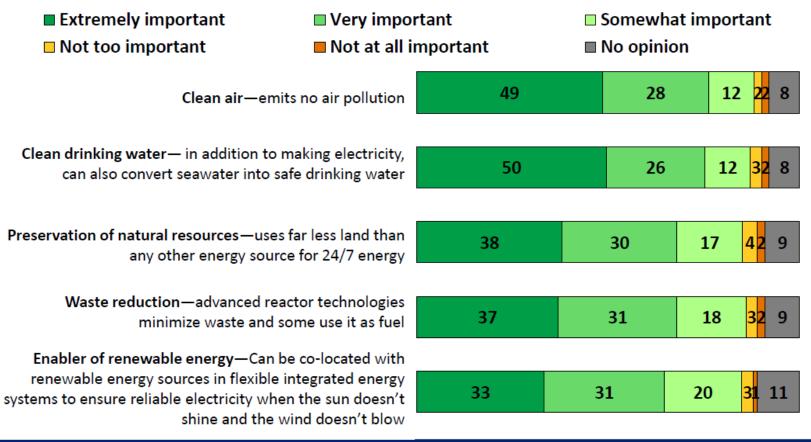


Bisconti Research, Inc. survey of U.S. public opinion, June 2020

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Environmental Advantages of Current or Future Nuclear Power Plants

Following are some environmental advantages of current or future nuclear power plants. How important do you consider each one? (%)



11X

37



These slides are shown here in PDF for your review and are available in PPT for your presentations by contacting Ann Bisconti (ann@bisconti.com) or Sandy Wilkes (sandy@bisconti.com). Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

1.Conduct surveys or public opinion polls to determine the degree of knowledge and receptiveness to the local use of nuclear power



Public opinion relating to uranium mining

A 2009 poll conducted by the <u>Uranium Information Centre</u> found that Australians in the 40 to 55 years age group are the "most trenchantly opposed to nuclear power".^[75] This generation was raised during the <u>Cold War</u>, experienced the <u>anti-nuclear movement</u> of the 1970s, witnessed the 1979 partial meltdown of the <u>Three Mile Island</u> reactor in the US, and the 1986 <u>Chernobyl disaster</u>. It was the generation which was also subject to cultural influences including feature films such as the "nuclear industry conspiracies" <u>The China Syndrome</u> and <u>Silkwood</u> and the apocalyptic <u>Dr</u> <u>Strangelove</u>.

Younger people are "less resistant" to the idea of <u>nuclear power in Australia</u>.^[75] Analysis of opinion polls from 2012 shows a "significant decrease in favourable views of nuclear power" following the <u>Fukushima Daiichi nuclear disaster</u>.^[76]

Indigenous land owners have consistently opposed uranium mining and have spoken out about the adverse impact it has on their communities.^[13]

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme



1.Conduct surveys or public opinion polls to determine the degree of knowledge and receptiveness to the local use of nuclear power

Highly Opposing Nuclear Power / uranium mining

Australians in the 40 to 55 years age group are the "most trenchantly opposed to nuclear power





Source: Anti Nuclear Movement in Australia, Wikipedia

Source : More young adults living with their parents, Australian Institute of Family Studies

Indigenous land owners have consistently opposed uranium mining





People, The Conversation

Source Uranium Mines harm Indigenous Source Uranium Mining & Native Resistance: The Uranium Exploration & Mining Accountability Act, intercontinental cry.org

Younger people are "less resistant" to the idea of <u>nuclear power in Australia</u>







Source Friendship and marriage in early adulthood, study.com

Source: Adolescence isn't an aberration, VIMHAMS

FUNCTIONS AND ACTIVITIES OF A NEPIO IN PHASE 1

	Issue	NEPIO functions	NEPIO activities
<complex-block><complex-block></complex-block></complex-block>	11. Stakeholder involvement	Prepare and implement an open and transparent stakeholder involvement strategy and plan	 Understand the importance of gaining and keeping the confidence of the public and the international community by maintaining open and timely interaction regarding all aspects of the nuclear power programme; Secure a clear government mandate to engage with all relevant stakeholders; Ensure a professional communications team is available to the NEPIO; Conduct surveys to establish a baseline of the public's knowledge of and receptiveness to nuclear power; Develop appropriate public information tools that address key issues and identified concerns; Explain the government's interest in nuclear power, the potential benefits and risks, and how the government will ensure safety, security and non-proliferation; Develop and begin implementing a plan of interaction with all stakeholders, including neighbouring countries. Train senior staff to interact with stakeholders.

Category	Areas of concern/interest	
Economic	Cost Benefit Financial risk Economic impact Best use of available funds Timely availability of funds Diversification of funds Reuse of site Change of land value Reuse of facility infrastructures Optimization of services in place for other operating facilities Cover identified risks by insurance Social compensations	<section-header><section-header><section-header></section-header></section-header></section-header>
	Opportunities for enterprises Management of bids Development of partnerships Defense of property Environmental Water of Land ou Visual a Noise	uality ality menity
	Traffic -	- transport of radioactive waste - construction ation of habitat for flora and fauna

Conservation of species

Management of materials coming from decommissioning

4.1. AREAS OF CONCERN/INTEREST

Social

Public health & safety Worker health & safety Employment issues Maintenance of qualified jobs Psychological environment Radiological issues Quality of life in the local commun Management of the territory Cultural/heritage (preservation of leducational programmes Opinion forming, communication a Maintaining support from constitue	nistorical vestiges) and information distrib	QUALITY OF LIFE
Assert and defend ideological posit	Category	Areas of concern/interest
Secure dangerous materials Increase/ maintain confidence	Technical	Proven technology Compatible with regulation/planning laws
		Flexibility to change if circumstances change Develop experience and technologies in decommissioning Improve design and operation of plants Spread technical findings Exchange knowledge and techniques with non nuclear activities Use of external expertise
Research & Development		Produce standards and regulations Improve inspection methodologies Perform R&D activities Establish international conventions/agreements Organizational schemes Management system (including safety management) Emergency preparedness



Interest and Concerns of Stakeholders



Concerns

Legal

Ethical

Nuclear Communicator's Toolbox



Stakeholder Analysis

Related questions

Is the process supported by laws; do they trust the actors? Is the regulator applying laws, etc. correctly? Is this a burden on future generations? Is the project unfairly targeting poor communities, indigenous groups, etc.?

What's in it for them (benefits)? Will it destroy businesses or local tourism etc. (disadvantages)? Is this a correct use of funds by government?

They may not trust the concept or technology. They may believe there are too many uncertainties. They may fear nuclear, especially waste.

Opponents will not want to follow the nuclear path, preferring other energy sources. Supporters will not want to let the lights go out; they will trust the technology.

What impacts will there be on local wildlife? Will construction destroy the environment with impacts from dust? What about health, safety, transport?

What will be the cost to the national budget? This development was not in the local plan. This is not their party's policy. Can such decisions be left to politicians, not the people? Project timescales are longer than term of office.

Economic

Technological

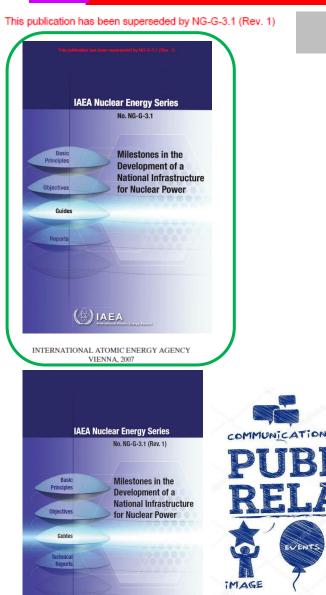
Societal

Ecological/Environmental

Political

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120

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

2a. **Develop pubic information tools that respond to the surveys** and clearly explain the reasons for the government interest in and the societal benefit to resulting from the use of nuclear power;

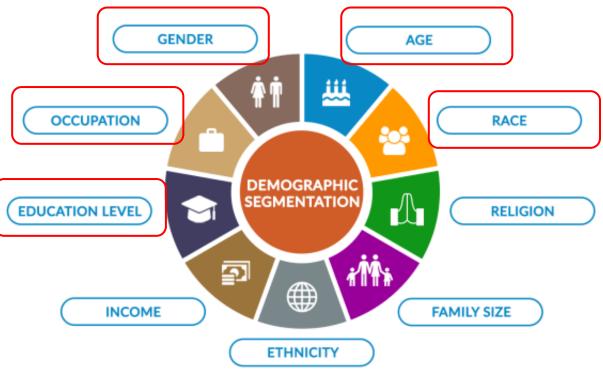


source: Process and Different Tools of Public Relations, Housefull 1234567890, 11 April 2012, Slideshare







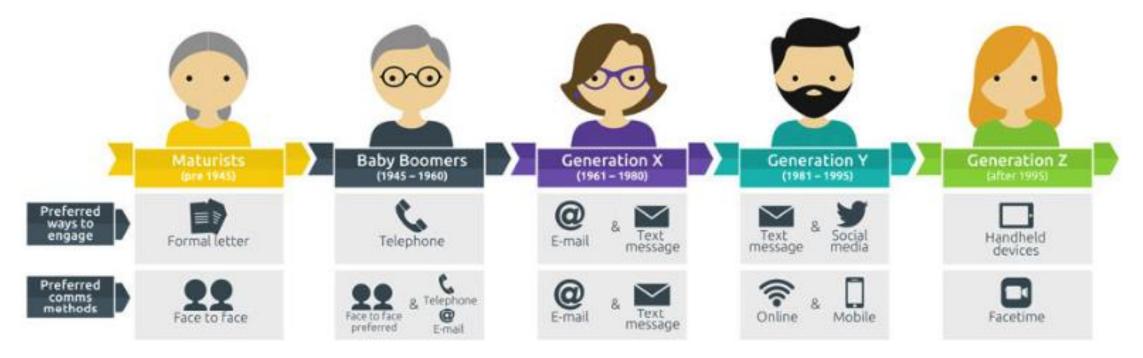


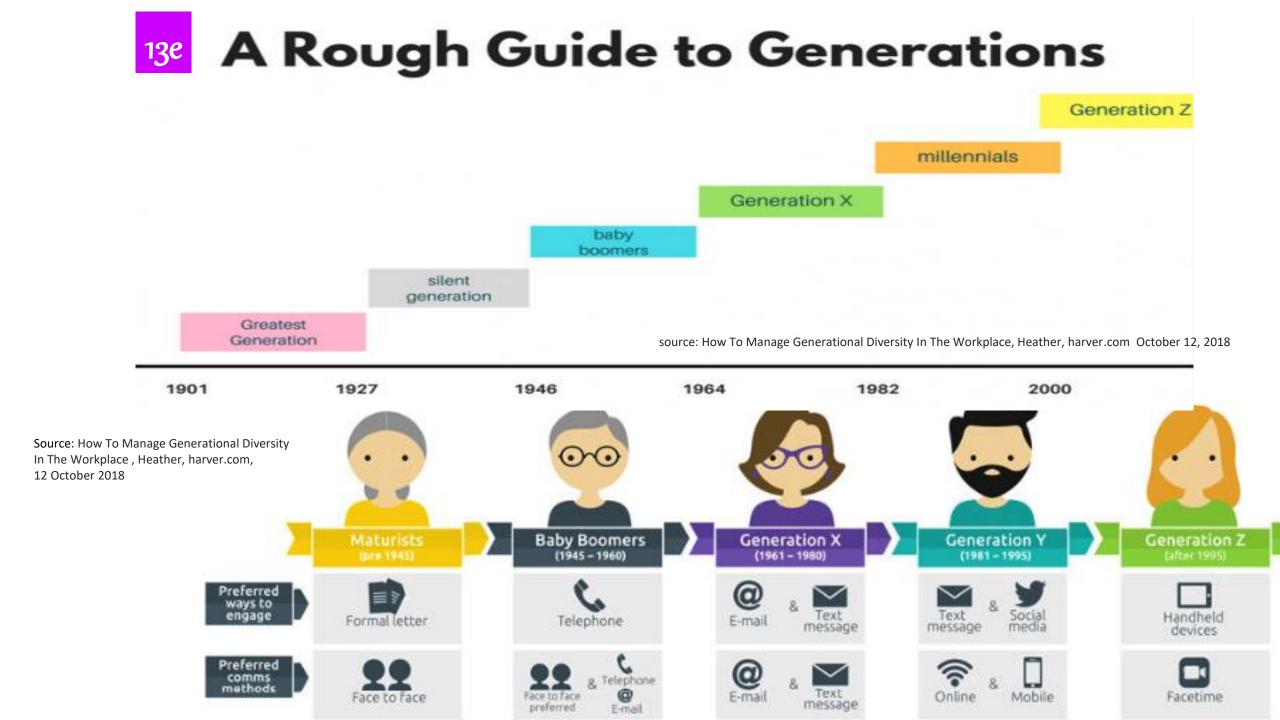
source: Tools of PR Startups, Press Farm, 29 Jan 2020

source: Choosing the Appropriate Social Media Platform The Social BUZZ Club

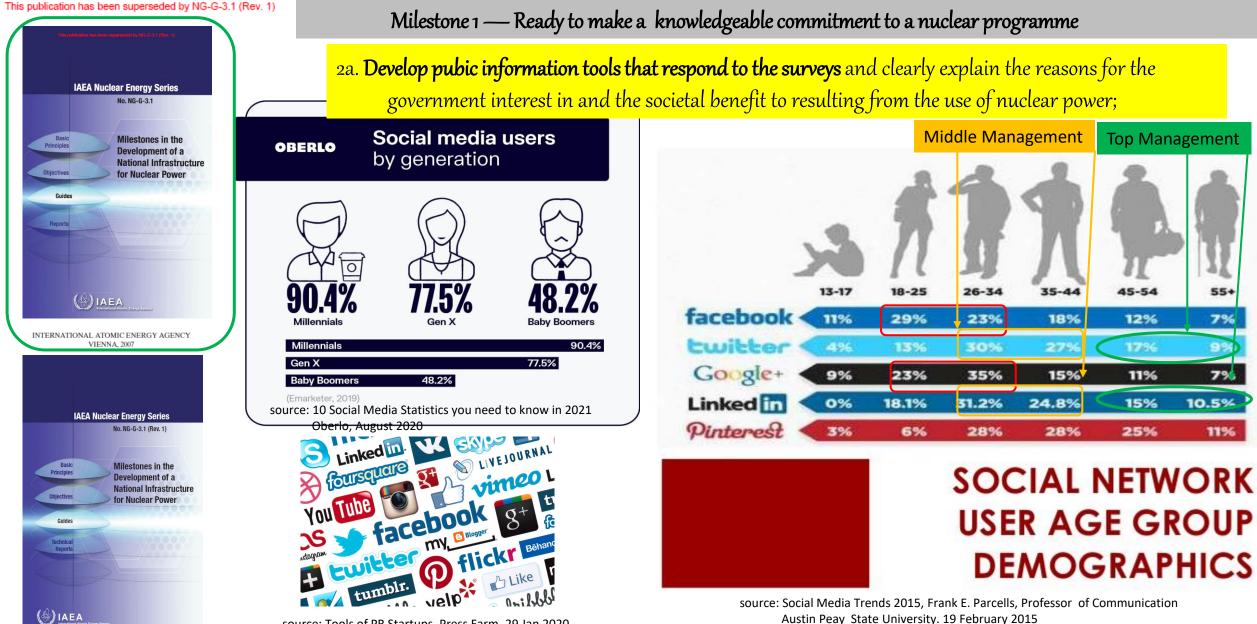
Communication gaps

These generations not only have different working styles, but also differing communication styles. This is in large part due to technology, as each generation uses it to communicate in very different ways. While Baby Boomers are willing to use technology for productivity purposes, they prefer to communicate face-to-face or over the phone.



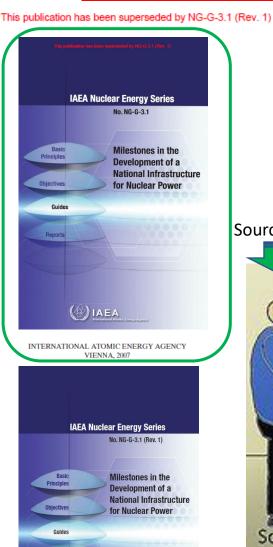






source: Tools of PR Startups, Press Farm, 29 Jan 2020



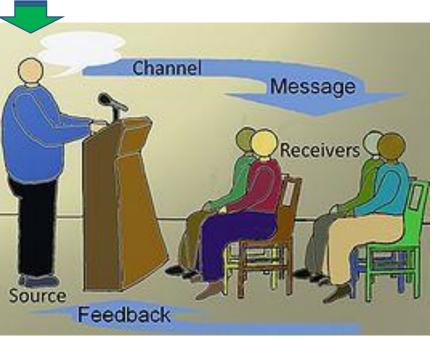


Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

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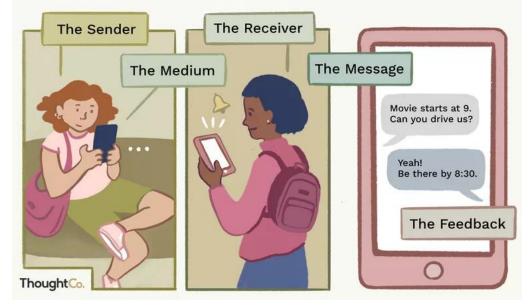
Communication Process has Source, Channel Message, Receiver and Response

Source/ Messenger



source: https://suifaijohnmak.files.wordpress.com/2011/03/270px-transactional_comm_model

Elements of the Communication Process



source: The Basic Elements of Communications process, ThoughtCo Richard Nordquist, 6 April 2020 and Image by Hilary Allison



Media Channels to suit Stakeholders

Project logo	LIST OF STAKEHOLDERS					
Project name and number:				v		
Function	Name and Phone surname		E-mail	Preferred method of communicati	Preferred communication tools	
				on	1.	2.
Statutory						
Executive director						
Key user – main customer						
Key contractor						
Project manager					-	
Project team leader						
Project team member (1)						
Other stakeholders						
Drafted : (name + function Approved: (name + function	CT 200 102	Date: Date:		Signature:. Signature:.		

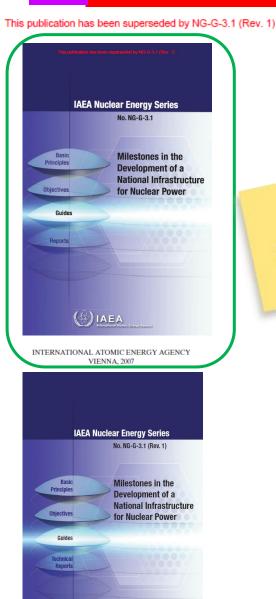
Source: Communication Management Plan for Stakeholder, Excel124

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14C

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

2a. **Develop pubic information tools that respond to the surveys** and clearly explain the reasons for the government interest in and the societal benefit to resulting from the use of nuclear power;

A good message must be :

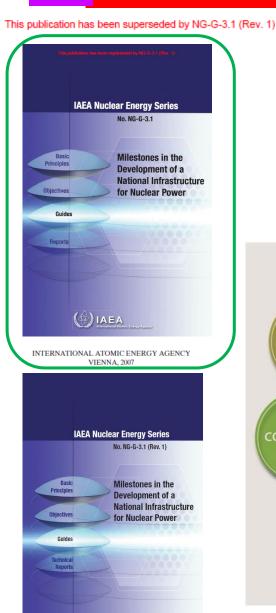
- in line with the objective (s)
- meaningful

MESSAGES

- based on felt needs
- clear and understandable
- specific and accurate
- timely and adequate
- fitting the audience
- interesting
- culturally and socially appropriate

source: Barriers of Communications presented by Dr S.D. Shekde, JR2, guided by DR V.M. Holambe HOD, Asst Professor, Department of Comm Medicine, GMC Latur, 26 June 2014





correct

7 Cs of

source:7C's of Communications, Open university

concise

complete

clear

courteous

coherent

140

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

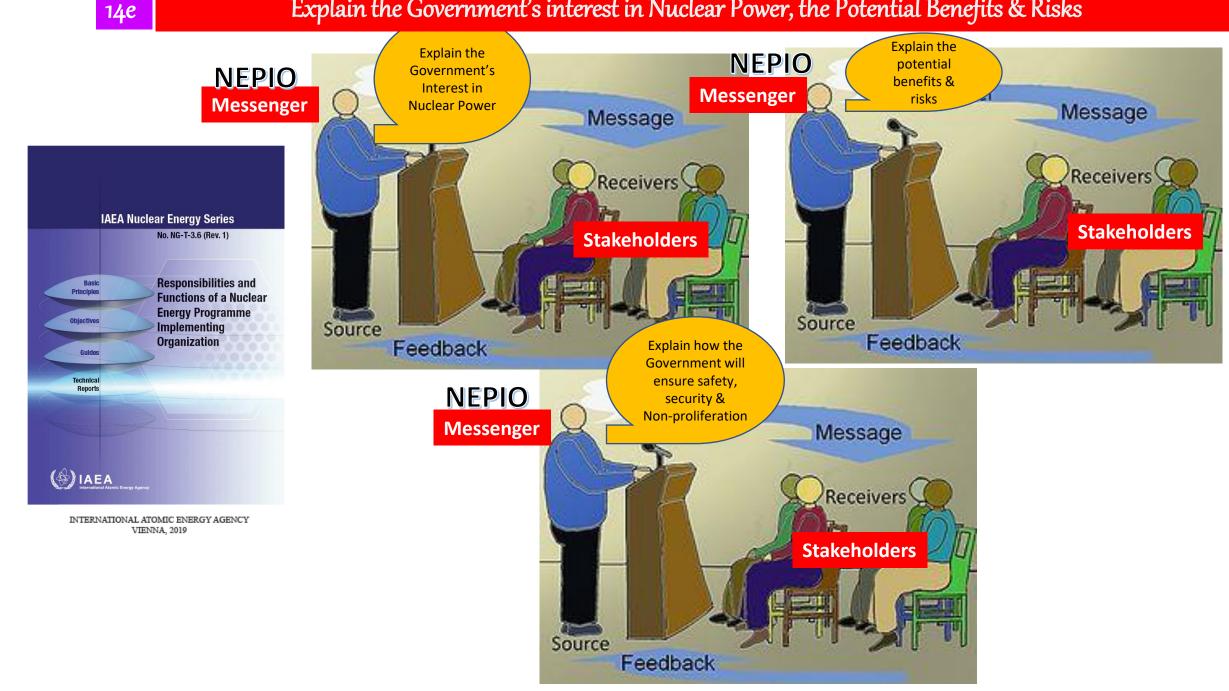
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7 Cs of Communication Checklist

concrete	Clear	Make objective clear. Avoid complex words & phrases.
	Concise	Keep it clear and to the point. Avoid filler words & sentences.
	Concrete	Be specific not vague. Use facts and figures to support your message.
	Correct	Try to avoid typos. Use correct facts and figures. Use the right level of language.
	Coherent	Does your message make sense? Ensure it flows logically. Avoid covering too much.
	Complete	Does the message contain everything it needs to? Include a call-to-action.
niversity	Courteous	Being polite builds goodwill. Ensure message is tactful.

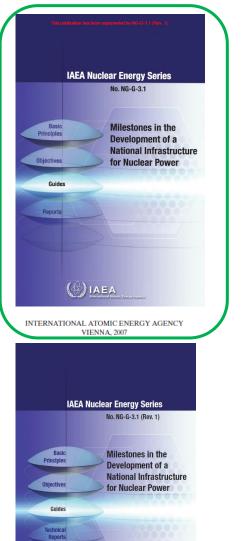
source: 7C's of Communications, Expert Management Programme

Explain the Government's interest in Nuclear Power, the Potential Benefits & Risks









Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

2a. Develop pubic information tools that respond to the surveys **and** (2b) clearly explain the reasons for the government interest in and the societal benefit to resulting from the use of nuclear power;



source: Important Public Speaking Skills for Workplace Success, Alison Doyle, the balance careers



source: Motivational Speakers: Right for Your Corporate Meetings or Events? Scott Steinberg 15a

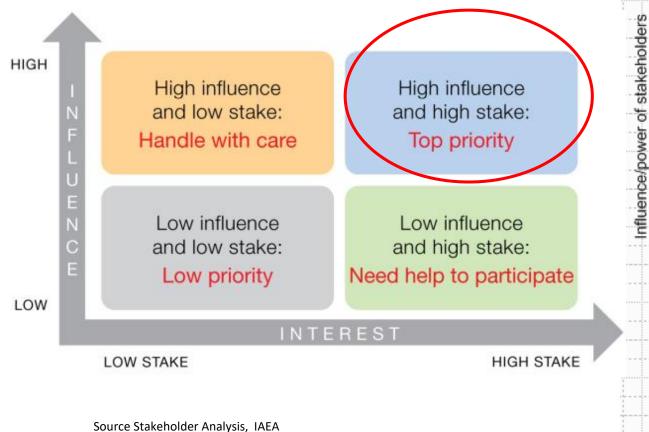
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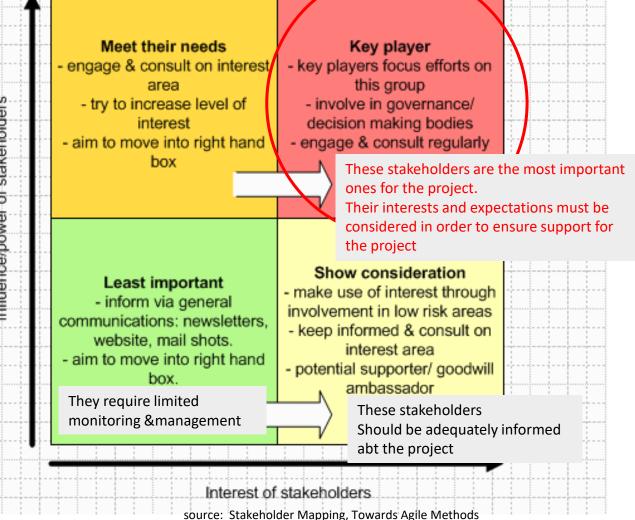
Develop and implement a Plan of Interaction with all stakeholders including neighbouring countries

Understand your stakeholders: 1.Identify your stakeholders 2. Analyse stakeholders by their level of interest and influence 3. Plan how to manage stakeholder interactions 4.Engage with your stakeholders

15b



All stakeholders are different and therefore need to be managed differently based on their Relative authority (power)/influence and level of interest or concerns- Prioritize the Stakeholder Group for involvement



Develop and implement a Plan of Interaction with all stakeholders including neighbouring countries

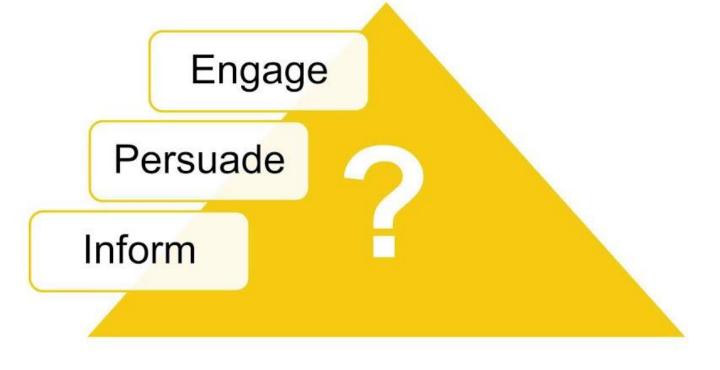


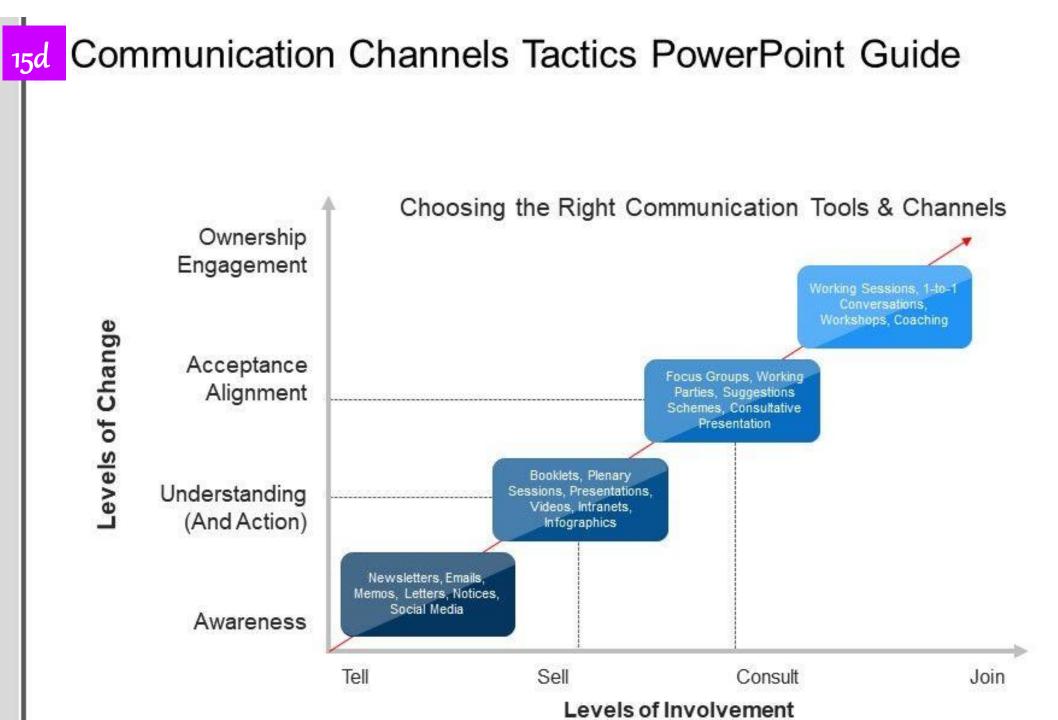
And a communication objective?



Petra Polaskova Communication Officer

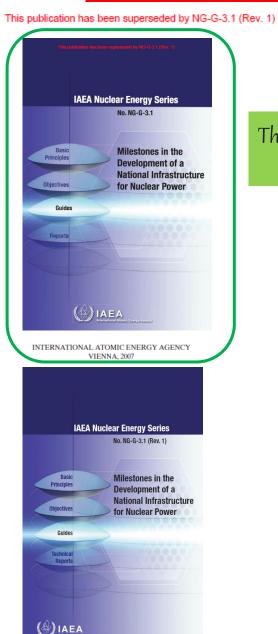
15C





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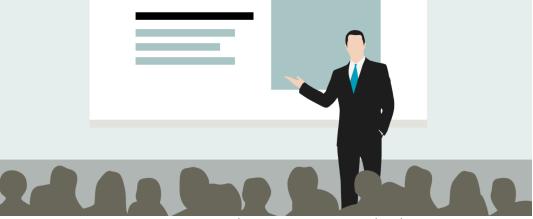


16b

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

4. **Train** and have available **senior spokespersons** to interact with stakeholders in response to any request

This training will aim to provide members with the skills necessary to use their stories, statistics, and key messages to make their messages stand out and connect with relevant audiences/stakeholders



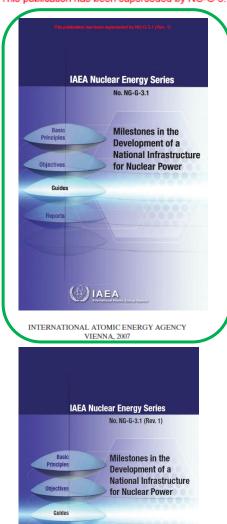
source: How Communications Training Leads to Superstar Teams, Deborah Eastman, Duarte.com



source: Communications, Media and Spokesperson Training, Kansas Farm Bureau, 2 December 2019

This publication has been superseded by NG-G-3.1 (Rev. 1)

16c



Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

4. Train and have available senior spokespersons to interact with stakeholders in response to any request



source: Public Relations- Effective Government Relations by study.com

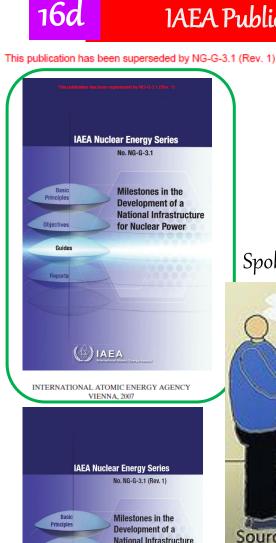




source: Professional Code of Ethics in Public Relations by study.com



source: Public Relations - Online course by smartme.ie

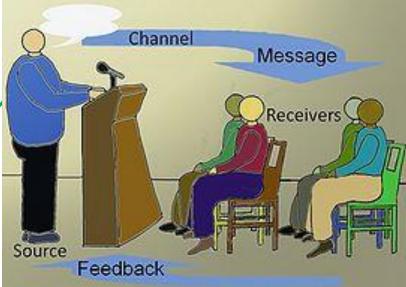


or Nuclear Power

Milestone 1 — Ready to make a knowledgeable commitment to a nuclear programme

4. Train and have available senior spokespersons to interact with stakeholders in response to any request

Spokesmen/Messenger



• 1. Sender

The sender (communicator) is the originator of the message. To be an effective communicator, he must know:

- his objectives. clearly defined
- his audience : it's interests and needs
- his message
- channels of communication
 - his professional abilities and limitations

Hi Toby, how was your holiday? Sender

The impact of the message will depend on his own social status (authority), knowledge and prestige in the community.

Source :

source: Barriers of Communications presented by Dr S.D. Shekde, JR2, guided by DR V.M. Holambe HOD, Asst Professor, Department of Comm Medicine, GMC Latur, 26 June 2014

Qualities of a Good Communicator





Interest and Concerns of Stakeholders, Messages and Communication Methods

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Nuclear Communicator's Toolbox

Table shows an example of a stakeholder matrix for a radioactive waste repository in terms of the key stakeholders:

Stakeholder groups	Key concerns	Existing communication methods	More effective communication methods	Key messages
Host community	-Safety of operations -Health and environmental impacts -Benefits	-Meetings -Presentations -Written communications	-Visits to similar facilities -Educational activities and exhibitions	-Solution to long-term management of radioactive waste -Safe and responsible operation -Local socio-economic
	package -Emergency preparedness			development
Media	-Public concern -Is it newsworthy? -media impact	-Meetings -Seminars -Written communication -Social media	-Press conferences and press releases -Site visits (media tours) -Training -Personal contact -Social media	-Safe and responsible operation (in conformity with international standards) -Direct access to accurate information
Politicians currently in power	-Funding of the project -Legislative framework	-Meetings -Written communications	-Meetings -Lobbying	-Sustainable solution to long-term management of radioactive waste -Safety first
NGOs	-Environmental issues -Transparency -Safety	-Meetings -Seminars -Written communication -Social media	-Open forums -Presentations and meetings -Emails -Personal approaches	-Safe and responsible operation -Transparency

Monitor and Evaluate the Results

Constantly monitor and track your results in order to understand whether you are any closer to achieving your goals.

If you have failed, proceed to mark it down so you can make necessary improvements next time.



Source: Monitor Communications Process, PMC Lounge on Youtube



Source: Evaluation , blog.insynctraining.com

Effective communications with stakeholders and their awareness and understanding, as one of the biggest challenges when initiating a nuclear power programme or undertaking related activities, such as uranium mining

Nuclear power programmes require engagement with a variety of stakeholders and a commitment of at least 100 years

CREATING AWARENESS and PROMOTING UNDERSTANDING among various stakeholders, not only from the Nuclear Industry or Government, but also the Media, Local Communities, Youths, Students, NGOs and the public is important to BUILD MUTUAL TRUST related to NUCLEAR SCIENCE & TECHNOLOGY

Stakeholder management is a key part of project management.

Stakeholder engagement and management is an ongoing process





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Mobile: + 6017 6853075



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source: Questions to Ask. HHS.gov



source: Common Interviews Questions and Answers, Camden Kelly