

# POLICY ISSUE NOTATION VOTE

April 22, 2008

SECY-08-0056

FOR: The Commissioners

FROM: Luis A. Reyes  
Executive Director for Operations

SUBJECT: ESTIMATED COSTS FOR BROADCASTING PUBLIC MEETINGS OVER  
THE INTERNET (WEB STREAMING)

PURPOSE:

This memorandum provides the Commission with options and associated costs of increasing the Agency's capability to Web stream public meetings of significant public interest over the Internet.

SUMMARY:

The current Web streaming program provides real-time Web streaming of up to 40 public Commission meetings annually and archived video of these meetings on the NRC Public Web site by the next business day. The staff recommends the Commission approve Option 1, which requires: (1) expanding the Web streaming program to include Web streaming of up to 50 Commission meetings, 50 public meetings held at various headquarters locations, 50 public meetings held at regional offices, and 40 public meetings at various remote locations; (2) equipping two additional conference rooms and the auditorium in the White Flint North (WFN) headquarters location and one additional conference room at each regional office with the equipment to record/capture the public meeting (cameras, microphones, encoders, etc.); and (3) purchasing six portable Web streaming kits (one for each region and two for headquarters) for use in remote locations. This option will require additional contract funds and additional full-time equivalent (FTE) staff beginning in Fiscal Year (FY) 2010.

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BACKGROUND:

In September 1999, the staff demonstrated the capability of Web streaming for the Commission and subsequently received approval to proceed with a Web streaming pilot program. As a result, the Agency adopted Web streaming technology to provide the public with access to Commission meetings. The NRC has been Web streaming public Commission meetings since 2002 and viewership has steadily increased since then. Currently, Web streaming has been approved for public Commission meetings that occur in the One White Flint North (OWFN) Commission Hearing Room. The Commission Hearing Room is currently the only room within the NRC that is equipped with hardware to web stream meetings. The Office of the Secretary of the Commission (SECY) schedules meetings held in the Commission Hearing Room. SECY notifies the Office of Administration (ADM) that a Commission meeting will be Web streamed and announces the time and place of the public meeting in the *Federal Register* and the external Website, and informs the public on how to access the meeting via the Web.

The Agency currently uses one contract for encoding the audio/video signal and transmitting this signal to a Web server, a second contract to operate the audio/visual (A/V) recording equipment in the Commission Hearing Room, and a third contract to live caption the meetings. The current Web streaming contract, including monthly upkeep of Web streaming equipment and telecommunication fees, covers transmission of up to 40 Commission meetings per year. The current annual cost for encoding and transmitting captured audio/video images, operating the audio/video equipment to capture the meetings, live-captioning, and archiving and transcribing each Commission meeting, is approximately \$160,000. In addition, 1.0 FTE is tasked with overseeing the Web streaming contract as well as the full spectrum of duties within the A/V contract.

In response to a memorandum from Commissioner Gregory B. Jaczko to Chairman Dale E. Klein and Commissioner Peter B. Lyons, "Increasing Transparency of NRC's Public Meetings," November 7, 2007, (COMGBJ-07-0005), the Commission requested a cost estimate for implementing Web streaming technology for "every public meeting where the staff anticipates significant public interest unless feasibility constraints prevent them from doing so."

In developing options for Commission consideration, the staff conducted market research of three vendors, evaluating the viability of real-time, Internet broadcasts of public meetings. The staff also analyzed NRC's historical data on media streaming usage by the public.

DISCUSSION:

During FY 2007, NRC conducted a total of 870 public meetings. There were 106 meetings conducted in the Commission Hearing Room, of which 35 were Commission meetings. Approximately 58 percent of NRC's 870 public meetings in FY 2007 were held at the WFN complex, 12 percent were held in the states where NRC's four regional offices are located, and the remaining 30 percent were held in remote locations. Of the 870 meetings held in FY 2007, four percent (35 Commission meetings) were broadcast live. Historical participation rates indicate that all of the public meetings available through archive are subsequently accessed by the public.

In developing the options and cost estimates, staff reviewed information obtained through market research as noted above, meetings, correspondence, and feedback from SECY, Office

of Congressional Affairs (OCA), Office of Public Affairs (OPA), Office of Chief Financial Officer (OFCO), Office of Information Services (OIS) and the Regions. We focused the analysis on addressing technical issues with NRC's current environment; promoting and facilitating public involvement and access to NRC information; and identifying the most commonly used, efficient, and cost-effective method to implement technology, not only for the Agency but also for the public end user. For the purposes of this analysis, staff defined Web streaming to include the live audio/video signal, captioning of the live stream and archiving of the live signal and providing a verbatim transcript of the meeting for later on-demand use.

The staff defined public meetings of "significant public interest" as any public meeting that generates national or international print or broadcast media attention, repeated local media coverage, Congressional interest, or high external stakeholder interest (e.g. interest groups, state/local governments, agreement states, etc.). For example, meetings dealing with license renewal and new applications held in the field, problems including tritium contamination, security concerns, performance at facilities, and annual performance assessments would be included in the definition for public meetings of "significant public interest." In developing the options presented, the staff applied these criteria to NRC's public meetings in FY 2007 in support of reactor, waste and nuclear materials programs. Applying these criteria to determine which meetings are Web streamed in the future would be decided by a team including a representative from OCA, OPA, and OEDO.

The cost estimates provided encompass the technology needed to stream the meetings, the anticipated number of meetings streamed each year and the location and number of concurrent meetings. Enclosure 1 lists the number of public meetings held at NRC WFN complex since FY 2006. Enclosure 2 lists the number of public meetings held at various locations for the same time period. Enclosure 3 provides detailed cost estimates associated with expanding our Web streaming program.

The staff considered three options for expanding our Web streaming of public meetings beginning in FY 2010. Each option is based on the type of public access (e.g., real-time, archive, or both), the location of the meetings, and the approximate number of public meetings held annually. The costs for captioning to comply with Section 508 of the Rehabilitation Act of 1973, as amended, are listed for each option.

### Option 1

This option represents the staff's best estimate of the number of public meetings that would generate significant public interest based on applying the significance-determination definition to the public meetings held in FY 2007. NRC staff, with A/V contract support, will increase the number of public meetings live-streamed, captioned, archived and transcribed for later on-demand use, from approximately 40 to approximately 190 public meetings.

A breakdown of the meeting locations is as follows:

- 50 Commission meetings in the Commission Hearing Room (increased by 10)
- 50 public meetings held at various headquarters locations (approximately 1 per week)
- 50 public meetings held at Regional Offices (approximately 1 per week)
- 40 public meetings at remote sites

First Year Costs: \$979,300

- Web streaming equipment for 6 additional conference rooms (one for each regional office and two for headquarters) and the auditorium in TWFN \$517,100
- 6 portable Web streaming kits \$ 69,000
- Contractor to Web stream meetings \$ 82,300
- Web streaming equipment maintenance \$ 57,200
- Contractor to record meetings (w/o travel) \$ 39,900
- Contractor to caption and transcribe meetings (Section 508 compliance) \$213,800

Additional FTE Requested: 2

- Support 150 additional public meetings Web streamed, captioned, archived and transcribed for a total of 190 public meetings.
- Attend selected public meetings (many held concurrently at headquarters and in the regions) to manage and problem solve technical aspects of recording and streaming the event.
- Operate a centralized customer service help desk, resolving technical problems associated with live Web streamed and archived meetings raised by the public.

Advantages:

- Increases the number of live meetings that are Web streamed, captioned, archived and transcribed by 150, beginning in FY 2010.
- Improves the public’s understanding of NRC activities by increasing their access to meetings of “significant public interest” held at various headquarters locations, regions, and remote locations.
- Provides a historical record for the Agency and internal and external stakeholders, and a tool for knowledge transfer.

Disadvantage:

- Significant up front investment compared to Option 2 below.

OPTION 2

This option applies the definition for “significant public interest” to public meetings held in headquarters WFN complex only. NRC staff, with A/V contract support, will increase the current number of live meetings Web streamed, captioned, archived and transcribed for later on-demand use from 40 to a total of 100 public meetings.

A breakdown of the meeting locations is as follows:

- 50 Commission meetings held in the Commission Hearing Room (increased by 10)
- 50 public meetings held at various headquarters locations (approximately 1 per week)

First Year Costs: \$397,700

- Web streaming equipment for 2 additional conference rooms in the WFN complex and the auditorium in TWFN \$172,400
- Contract to Web stream meetings \$ 82,300
- Web streaming equipment maintenance \$ 9,500

- Contract to record meetings (w/o travel) \$ 21,000
- Contract to caption and transcribe meetings (Section 508 compliance) \$112,500

Additional FTE Requested: 1

- Support the 50 additional public meetings that are Web streamed and archived for later on-demand viewing, for a total of 100 public meetings.

Advantages:

- Improves the public's understanding of NRC's activities by increasing their access to meetings of "significant public interest" held at headquarters.
- Increases the number of live meetings Web streamed, captioned, archived and transcribed, by 60 beginning in FY 2010.
- Initial investment significantly less than options 1 and 3.

Disadvantages:

- Public will not have access to meetings of "significant public interest" held in the regions or at remote sites.
- Limits the effectiveness as a historical record for the agency and internal and external stakeholders, and tool for knowledge transfer.
- No customer service help desk, to resolve technical problems associated with live Web streamed and archived meetings raised by the public.

### OPTION 3

This option applies the definition for "significant public interest" to public meetings held in various headquarters and regional office locations. NRC staff, with A/V contract support, will increase the current number of meetings live-streamed, captioned, archived and transcribed for later on-demand use from 40 to a total of 150 public meetings.

A breakdown of the public meeting locations is as follows:

- 50 Commission meetings held in the Commission Hearing Room (increased by 10)
- 50 public meetings held at headquarters locations (approximately one per week)
- 50 public meetings held at regional offices (approximately one per week)

First Year Cost: \$828,300

- Web streaming equipment for 6 additional conference rooms (one in each region and 2 in headquarters) and the auditorium in TWFN \$517,100
- Contract to Web stream meetings \$ 82,300
- Web streaming equipment maintenance \$ 28,600
- Contract to record meetings (w/o travel) \$ 31,500
- Contract to caption and transcribe meetings (Section 508 compliance) \$168,800

Additional FTE Requested: 1.5

- Support additional 110 live public meetings Web streamed, captioned, archived and transcribed, for a total of 150 public meetings.

- Attend selected public meetings (many held concurrently at headquarters and in the regions) to manage and problem solve technical aspects of recording and streaming the event.

Advantages:

- Improves the public's understanding of NRC's activities by increasing their access to meetings of "significant public interest" held at headquarters and regional offices.
- Increases the number of live, Web streamed, captioned, archived, and transcribed meetings by 110, beginning in FY 2010.
- Provides a historical record for the Agency and internal and external stakeholders, and tool for knowledge transfer.
- Initial investment less than Option 1.

Disadvantages:

- Public will not have access to any public meetings held at remote sites.
- No customer service help desk, to resolve technical problems associated with live Web streamed and archived meetings raised by the public.
- Significant up front investments compared to Option 2.

RESOURCES:

A summary of the options and associated contract costs is shown in the table below.

<b>Meetings</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
Number of live, Web streamed, Commission meetings	50	50	50
Number of live, Web streamed, public meetings at headquarter locations	50	50	50
Number of live, Web streamed public meetings at Regional Offices	50	0	50
Number of live, Web streamed public meetings at remote sites	40	0	0
<b>Total</b> (Number of public meetings captured for live broadcast, archived, and transcribed for later, on-demand use)	<b>190</b>	<b>100</b>	<b>150</b>
Total number of public meetings NOT captured for live broadcast or on-demand	720	810	760
Estimated Total Number of Public Meetings	910	910	910
<b>FTE</b>			
Additional FTE	2	1	1.5
<b>Costs</b>			
Equipment costs to set up additional conference rooms	\$517,100	\$172,400	\$517,100
Costs to obtain 6 portable Web streaming kits	\$69,000	\$0	\$0
Costs for annual Web streaming contract	\$82,300	\$82,300	\$82,300

<b>Meetings</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
Costs for annual Web streaming equipment maintenance	\$57,200	\$9,500	\$28,600
Annual costs to record each two-hour meeting	\$39,900	\$21,000	\$31,500
Costs for captioning and transcribing meetings (Section 508 compliance)	\$213,800	\$112,500	\$168,800
<b>Total First Year Costs</b>	<b>\$979,300</b>	<b>\$397,700</b>	<b>\$828,300</b>

Total Estimated Cost by Fiscal Year:

<u>Option 1</u>	FY 2010:	\$ 979,300 and 2 FTE
	FY 2011:	\$ 393,200
	FY 2012:	\$ 393,200
	FY 2013:	\$ 393,200
	FY 2014:	<u>\$ 393,200</u>
		\$2,252,100
<u>Option 2</u>	FY 2010:	\$ 397,700 and 1 FTE
	FY 2011:	\$ 225,300
	FY 2012:	\$ 225,300
	FY 2013:	\$ 225,300
	FY 2014:	<u>\$ 225,300</u>
		\$1,298,900
<u>Option 3</u>	FY 2010:	\$ 828,300 and 1.5 FTE
	FY 2011:	\$ 311,200
	FY 2012:	\$ 311,200
	FY 2013:	\$ 311,200
	FY 2014:	<u>\$ 311,200</u>
		\$2,073,100

Budget Availability:

Required funding for FY 2010 and beyond will be addressed in the Planning, Budgeting and Performance management process.

RECOMMENDATION:

The staff recommends that the Commission approve Option 1. This most closely encompasses the expected number of public meetings that would generate significant public interest and provides the agency with expanded capacity to Web stream meetings.

COORDINATION:

The Office of the General Counsel has reviewed this Commission paper and has no legal objections. The Office of the Chief Financial Officer has reviewed this Commission paper for

The Commissioners

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resource implications and has no objections. The Office of the Secretary, the Office of Public Affairs, and the Office of Congressional Affairs reviewed and concurred in this paper.

*/RA/*

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Enclosures:

1. Total Number of Public Meetings Held in NRC Headquarters Facilities
2. Total Number of Public NRC Meetings Held at Various Locations
3. Web Streaming Costs

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OFFICE	PM-C:ADM/DAS	D:ADM/DAS	OGC	OCFO	OIS
NAME	GLauffer	MGary	DFruchter	LBarnett	TBoyce
DATE	03/25/08	03/25/08	03/21/08	03/21/08	03/21/08
OFFICE	OPA	OCA	SECY	ADM/OD	EDO
NAME	EBrenner	RSchmidt	AVietti-Cook	THagan	LReyes
DATE	03/21/2008	03/25/2008	04/14/08	04/14/08	04/22/08

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**Total Number of Public Meetings Held in NRC Headquarters Facilities**

<b>Location</b>	<b>FY 2006</b>		<b>FY 2007</b>		<b>FY 2008 (thru 2/29/08)</b>	
	Total No. Meetings	Total No. Web-streamed	Total No. Meetings	Total No. Web-streamed	Total No. Meetings	Total No. Web-streamed
Commission Hearing Room	82	27	106	33	35	10
White Flint Complex	420	0	371	0	122	0
Executive Boulevard	0	0	28	0	27	0
PDC	0	0	0	0	0	0
ACRS	0	0	0	0	0	0
ASLBP	0	0	2	0	0	0
<b>Total</b>	<b>502</b>	<b>27</b>	<b>507</b>	<b>33</b>	<b>184</b>	<b>10</b>

**Total Number of Public NRC Meetings Held at Various Locations**

<b>Location</b>	<b>FY 2006</b>	<b>FY 2007</b>	<b>FY 2008 (thru 2/29/08)</b>
Region 1 - PA	15	18	7
Region 2 – GA	29	30	5
Region 3 – IL	18	17	2
Region 4 – TX	12	16	6
Las Vegas, NV	7	15	6
Rockville, MD	502	507	184
All Other States	163	267	68
<b>TOTAL</b>	<b>746</b>	<b>870</b>	<b>278</b>

## Web Streaming Costs

### Detailed Costs for NRC to Equip One Conference Room for Web Streaming

Video Cameras (2 cameras with multiplex adapters)	\$ 9,400.00
Camera control (for remote operation of camera)	\$ 1,600.00
Video monitors (1 per camera, 1 preview, 1 program)	\$ 2,080.00
Video mixer	\$ 3,000.00
Video recording device (DVD deck or Hard Drive)	\$ 5,000.00
Audio Support (2 wireless or 16 wired mics)	\$ 6,500.00
Audio Mixer	\$ 3,000.00
Audio recording device (cassette)	\$ 500.00
Captioning encoder	\$ 900.00
Equipment rack	\$ 1,000.00
Lighting	\$ 5,000.00
Video Display in room (50" Flat Screen)	\$ 2,000.00
Audio support in room (10 ceiling speakers, 2 portable speakers)	\$ 4,000.00
Associated wiring and signal amplifiers (20% of equipment cost)	\$ 8,796.00
Labor for install (2 techs, \$100/hr, 1 week)	\$ 1,200.00
Web cast encoder	\$ 8,944.00
Additional camera unit and mics	\$ 13,260.00
<hr/> Total Estimate	<hr/> \$ 86,180.00

### Portable AV Recording Kit

Mobile streaming kit	\$ 5,185.00
Unit with camera and audio input	\$ 1,500.00
1-year extended hardware warranty	\$ 350.00
1-day training	\$ 4,460.00
<hr/> Total	<hr/> \$ 11,495.00

Annual costs for Web streaming contract	\$ 82,284.00
Annual costs for Web streaming equipment, per encoder	\$ 4,765.00
Costs for captioning and transcribing per two-hour meeting	\$ 1,125.00
Costs for recording each two-hour meeting	\$ 210.00