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DOE\BPA 1755-1780 (Rev. 2) (Sufficient)

Submitted: 12/8/2020

Approved: 12/9/2020

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## DOE\BPA 1755-1780 (Rev. 2) (Sufficient) - Freq-Geo Transition Timeline

Serial Number	System Name	Center Lower Frequency (MHz)	Upper Frequency (MHz)	Emission Bandwidth (MHz)	Receiver Bandwidth	System Use Type Name	Operation Area	Transmitter State	Transmitter Latitude	Transmitter Longitude
DOE786122	T	1765		8	2	Microwave	Microwave Link	OR	453423N	1224727W
DOE924929	3A	1765		10	2	Microwave	Microwave Link	OR	454041N	1204410W
DOE945250	4K-1	1757.5		0.8	2	Microwave	Microwave Link	OR	434625N	1201654W
DOE945254	4K-2	1767.5		0.8	2	Microwave	Microwave Link	OR	433034N	1190725W
DOE955040	13A	1777.5		0.8	2	Microwave	Microwave Link	WA	461351N	1190234W
DOE955303	3K	1767.5		1	2	Microwave	Microwave Link	CA	412458N	1210632W
DOE984990	3D	1775		1	2	Microwave	Microwave Link	WA	471909N	1201423W

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Serial Number	Receiver State	Receiver Latitude	Receiver Longitude	Alternate Frequency Assignment	Geographic Location associated with Timeline	Sharing Type	Temporary Sharing Timeline (Months After 1/31/2015)	Indefinite Sharing Timeline (Months After 1/31/2015)	Vacate Assignment Timeline (Months After 1/31/2015)
DOE786122	WA	453905N	1224339W	TBD	EA 167	None			30
DOE924929	WA	454345N	1204224W	TBD	EA 167	None			30
DOE945250	OR	434841N	1205229W	TBD	EA 167	None			30
DOE945254	OR	433332N	1190909W	TBD	EA 150	None			30
DOE955040	WA	461543N	1191722W	4 GHz	EA 169	None			30
DOE955303	CA	413050N	1203813W	7-8 GHz	EA 165	None			30
DOE984990	WA	470618N	1193144W	TBD	EA 169	None			30

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System Name	Total Pre-Auction Cost (\$M)	Pre-Auction Transfer Requested (\$M)	Equipment Cost (\$M)	Deployment Cost (\$M)	Total Cost (\$M)	Begin Expenditure Timeline (Months)	End Expenditure Timeline (Months)	Expanded Capability Cost (\$M)
13A	0.0000	0.0000	0.4200	1.9800	2.4000	1	98	0.0200
3A	0.0000	0.0000	0.0500	0.0500	0.1000	1	98	

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System Name	Expanded Capability Description	Expanded Capability Justification
13A	Expand channel capacity to 16 DS1	<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>Expanded channel capacity to 16 each DS1 will provide sufficient capacity to meet existing telecommunication circuit needs including Teleprotection, SCADA, Telemetry, Site Security, Voice, IT and future Smart Grid applications to control and operate the power transmission grid per Western Electric Coordinating Council (WECC) and North America Electric Reliability Council -Critical Infrastructure Protection (NERC-CIP) requirements. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>
3A		<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>BPA will temporarily relocate the existing frequency assignments from the 1755-1780 MHz band to the 1780-1850 MHz band. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>

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System Name	Total Pre-Auction Cost (\$M)	Pre-Auction Transfer Requested (\$M)	Equipment Cost (\$M)	Deployment Cost (\$M)	Total Cost (\$M)	Begin Expenditure Timeline (Months)	End Expenditure Timeline (Months)	Expanded Capability Cost (\$M)
3D	0.0000	0.0000	0.0000	0.0000	0.0000			
3K	0.0000	0.0000	0.4200	1.9800	2.4000	1	98	0.0200

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System Name	Expanded Capability Description	Expanded Capability Justification
3D		<p>BPA is funding the relocation of this microwave point-to-point path with a new digital microwave or fiber technology. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>
3K	Expand channel capacity to 16 DSI	<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>Expanded channel capacity to 16 each DS1 will provide sufficient capacity to meet existing telecommunication circuit needs including Teleprotection, SCADA, Telemetry, Site Security, Voice, IT and future Smart Grid applications to control and operate the power transmission grid per Western Electric Coordinating Council (WECC) and North America Electric Reliability Council -Critical Infrastructure Protection (NERC-CIP) requirements. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>

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4K-1	0.0000	0.0000	0.0500	0.0500	0.1000	1	98	
4K-2	0.0000	0.0000	0.0500	0.0500	0.1000	1	98	



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System Name	Expanded Capability Description	Expanded Capability Justification
4K-1		<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>BPA will temporarily relocate the existing frequency assignments from the 1755-1780 MHz band to the 1780-1850 MHz band. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>
4K-2		<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>BPA will temporary relocate the existing frequency assignments from the 1755-1780 MHz band to the 1780-1850 MHz band. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>

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System Name	Total Pre-Auction Cost (\$M)	Pre-Auction Transfer Requested (\$M)	Equipment Cost (\$M)	Deployment Cost (\$M)	Total Cost (\$M)	Begin Expenditure Timeline (Months)	End Expenditure Timeline (Months)	Expanded Capability Cost (\$M)
Headquarters Overhead	0.0000	0.0000	0.0000	1.6000	1.6000	1	98	
T	0.0000	0.0000	0.0500	0.0500	0.1000	1	98	
<b>Total</b>	0.0000	0.0000	1.0400	5.7600	6.8000			0.0400

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System Name	Expanded Capability Description	Expanded Capability Justification
Headquarters Overhead		<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>Costs required for oversight and program management at Headquarters DOE. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>
T		<p><b>**Update**</b> 11/19/2020 Please see Notes tab for Request for time extension justification.</p> <p>BPA will temporary relocate the existing frequency assignments from the 1755-1780 MHz band to the 1780-1850 MHz band. March 11, 2019: AWS-3 SRF funds will need to be retained by BPA for over five years after BPA first received AWS-3 funds, at least through FY 2020 (a total of 62 months since receiving SRF funds in July 2015) in order to perform reliability testing, modification to electricity power supply hookups, and to complete the construction of two communications buildings. Those efforts will assure “comparable capability” has been achieved.</p>
<b>Total</b>		

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DOE\BPA 1755-1780 (Rev. 2) (Sufficient) - Interactions

Interaction Name	Interaction Description
Freq Assignments	NTIA will need to work closely with the Federal frequency assignment incumbents to determine new frequency assignments in the alternate bands including the 1780-1850 MHz, 4 GHz and 7/8 GHz bands for point-to-point microwave.

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DOE\BPA 1755-1780 (Rev. 2) (Sufficient) - Impact Factors

Factor Name	Factor Description
1. Alternate Bands	BPA will be seeking permanent frequency assignments in the 4 GHz and 8 GHz band in order to move out of the 1755-1780 MHz spectrum. Thus, the need to receive the 4 GHz and 8 GHz frequency assignments in a timely manner.
2. Freq Assignments	BPA will be seeking temporary frequency assignments in the 1780-1850 MHz band in order to move out of the 1755-1780 MHz spectrum. Thus, the need to receive the 1780-1850 MHz frequency assignments in a timely manner.
3. Weather Complications	The relocation effort for all sites listed for vacating are subject to extreme weather conditions during winter months which can delay the deployment of new equipment installation including towers, antenna and RF microwave radio systems.

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Note Name	Note Text
1. Note 1	BPA will temporarily relocate the existing frequency assignments from the 1755-1780 MHz band to the 1780-1850 MHz band.
2. Note 2	DOE 955040 (Paired with DOE 955039) and DOE 955303 (Paired with DOE 955305): Cost funding listed for frequency assignment pair covers total point-to-point microwave replacement cost.
3. Note 3	All other assignments: BPA is funding the relocation of this microwave point-to-point path with a new digital microwave or fiber technology.
4. Paired Serial Numbers	<p>[Serial Number - Center Freq./Paired RX Serial Number -Paired RX Frequency (RX State)]</p> <p>[DOE 786122 - M1765 / DOE 786123 - M1825 (WA)]</p> <p>[DOE 924929 - M1765 / DOE 786106 - M1825 (WA)]</p> <p>[DOE 945250 - M1757.5 / DOE 945249 - M1817.5 (OR)]</p> <p>[DOE 945254 - M1767.5 / DOE 945253 - M1827.5 (OR)]</p> <p>[DOE 955040 - M1777.5 / DOE 955039 - M1837.5 (WA)]</p> <p>[DOE 955303 - M1767.5 / DOE 955305 - M1827.5 (CA)]</p> <p>[DOE 984990 - M1775 / DOE 984991 - M1835 (WA)]</p>
Revision of timeline completion to FY20	BPA requires an extension of its original completion timeline of 30 and 48 months respectively out to 62 months for its 7 systems. BPA anticipates completing all AWS-3 transition work by September 30, 2020. Reasoning why AWS-3 SRF funds need to be retained by BPA over its original timeline is in order to perform reliability testing, modification to its electricity power supply hookups, and to complete the construction of two communications buildings for Systems 3-K and 13-A. These efforts will assure “comparable capability” has been achieved. BPA has been off all AWS-3 assignments since July, 2018.
Time Extension to 09/2023	<p>DOE is requesting an extension of its Advanced Wireless Services (AWS-3) transition work from September 30, 2020 to September 30, 2023, as required by 47 U.S.C §923(h)(6).</p> <p>DOE’s Bonneville Power Administration (BPA) has faced a number of challenges in its AWS-3 relocation efforts within the past few years. In addition to the challenges in dealing with affects of Covid-19, the western part of the United States has been severely impacted by the forest fires the last few seasons. Windows of opportunity to get the work done during Winter with 15 – 20 feet of snow prohibits getting the work done as well. The fires have cut off access to some of the remaining sites, where location is remote and significant damage has impacted BPA’s ability to gain access to these locations. All of these factors have put a significant strain on the allocation of resources, and the procurement of contracts. For these reasons, DOE requests AWS-3 extension from September 30, 2020 to September 30, 2023.</p>

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DOE\BPA 1755-1780 (Rev. 2) (Sufficient) - Excluded Info

Table	Row	Column	Agency Marking	Reference
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