

## **APPENDIX E: LAND USE DATA**

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## APPENDIX E – LAND USE DATA

**Table E-1. Mining Claims Crossed by Subroutes**

Mining Claim Name	Location Date	Township/Range/Section	Link
<b>New Mexico</b>			
<b>Subroute 1B – San Antonio Crossing*</b>			
Oro Espanola #15 and #16	7/30/2008	T5S/R1W/Sec 4	A160
Walnut Creek Mine	11/15/2008	T5S/R1W/Sec 9	A160
Walnut Creek #2 and #3	9/2/2009	T5S/R1W/Sec 9	A160
<b>Subroute 3A – North</b>			
Arrow Head Mine	5/15/2006	T21S/R18W/Sec 27	B121
Larkspur Mine	5/15/2006	T21S/R18W/Sec 34	B121
Bronze Starr Mine	5/15/2006	T21S/R18W/Sec 34	B121
Bonn Mine	5/15/2006	T21S/R18W/Sec 35	B121
Tuip Gurani Mine	5/15/2006	T21S/R18W/Sec 35	B121
<b>Arizona</b>			
<b>Subroute 4A – North of Mt. Graham</b>			
Polo #17, #18, #19,#20	2/28/2007	T7S/R11E/Sec 14	C760
IET #59, #60, #61, #62	4/8/2005	T7S/R11E/Sec 15	C760
IET #63, #64, #69, #70	4/8/2005	T7S/R11E/Sec 23	C760
Polo #21, #22, #23, #24	2/28/2007	T7S/R11E/Sec 24	C760
Quail #7, #8, #9, #10	4/24/2002	T7S/R12E/Sec 25	C620
Quail #11, #12	4/24/2002	T7S/R12E/Sec 26	C620
Burro #1, #2	3/28/2006	T7S/R12E/Sec 26	C620
Quail #15, #16, #17, #18	4/24/2002	T7S/R12E/Sec 27	C620
Coyote #5, #6, #7, #8	7/6/2004	T7S/R12E/Sec 28	C620
Coyote #9, #10, #12	1/13/2000	T7S/R12E/Sec 29	C620
Happy 1	9/9/2010	T7S/R12E/Sec 29	C620
Pancho #21, #22, #23, #24	2/28/2007	T7S/R12E/Sec 30	C620, C760
CCN-1, 2, 3, 4, 5, 6	10/16/2010	T8S/R17E/Sec 11	C173
CCN-7, 8, 26, 27	10/10/2010	T8S/R17E/Sec 11	C713
CCN-9	10/8/2010	T8S/R17E/Sec 11	C713
CCN-1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15	10/16/2010	T8S/R17E/Sec 12	C173
CCN-7, 8, 16, 17, 26, 27	10/10/2010	T8S/R17E/Sec 12	C173
CCN-9, 18	10/8/2010	T8S/R17E/Sec 12	C173
CCN-19, 20, 21, 22, 23, 28, 29, 30, 31, 32	10/18/2010	T8S/R17E/Sec 12	C173
CCN-24, 25, 33, 34, 35, 36	10/30/2010	T8S/R17E/Sec 12	C173
CCN-95, 96, 97, 103, 104, 105, 127, 128	10/17/2010	T8S/R18E/Sec 6	C178, C173
CCN-98, 99, 100, 106, 107, 108, 115, 116, 117, 118, 119, 122, 123, 124, 125, 126	10/9/2010	T8S/R18E/Sec 6	C178, C173
CCN-101, 102, 109, 110	10/30/2010	T8S/R18E/Sec 6	C178, C173
CCN-111, 112, 113, 114, 120, 121	10/19/2010	T8S/R18E/Sec 6	C178, C173
Wren-37, 38, 39, 40, 41,	6/26/2006	T7S/R18E/Sec 33	C170

**Table E-1. Mining Claims Crossed by Subroutes**

<b>Mining Claim Name</b>	<b>Location Date</b>	<b>Township/Range/Section</b>	<b>Link</b>
Parrot 1	3/2/1999	T7S/R18E/Sec 35	C170
Parrot 1, 2, 3	3/2/1999	T7S/R18E/ Sec 36	C170
Gal 1, 2	4/30/2008	T7S/R18E/ Sec 36	C170
Gal 375	10/1/2010	T7S/R18E/ Sec 36	C170
Gal 23, 24, 25, 26, 27, 28, 61, 62, 63	2/21/2008	T7S/R19E/Sec 31	C170
Gal 61, 62, 63, 80, 81, 114, 115	2/21/2008	T7S/R19E/Sec 32	C170
Gal 115	2/21/2008	T7S/R19E/Sec 33	C170
<b>Subroute 4B – Sulphur Springs Valley</b>			
Polo #17, #18, #19,#20	2/28/2007	T7S/R11E/Sec 14	C760
IET #59, #60, #61, #62	4/8/2005	T7S/R11E/Sec 15	C760
IET #63, #64, #69, #70	4/8/2005	T7S/R11E/Sec 23	C760
Polo #21, #22, #23, #24	2/28/2007	T7S/R11E/Sec 24	C760
Quail #7, #8, #9, #10	4/24/2002	T7S/R12E/Sec 25	C620
Quail #11, #12	4/24/2002	T7S/R12E/Sec 26	C620
Burro #1, #2	3/28/2006	T7S/R12E/Sec 26	C620
Quail #15, #16, #17, #18	4/24/2002	T7S/R12E/Sec 27	C620
Coyote #5, #6, #7, #8	7/6/2004	T7S/R12E/Sec 28	C620
Coyote #9, #10, #12	1/13/2000	T7S/R12E/Sec 29	C620
Happy 1	9/9/2010	T7S/R12E/Sec 29	C620
Pancho #21, #22, #23, #24	2/28/2007	T7S/R12E/Sec 30	C620, C760
CCN-1, 2, 3, 4, 5, 6	10/16/2010	T8S/R17E/Sec 11	C173
CCN-7, 8, 26, 27	10/10/2010	T8S/R17E/Sec 11	C173
CCN-9	10/8/2010	T8S/R17E/Sec 11	C173
CCN-1, 2, 3, 4, 5, 6, 10, 11, 12, 13, 14, 15	10/16/2010	T8S/R17E/Sec 12	C173
CCN-7, 8, 16, 17, 26, 27	10/10/2010	T8S/R17E/Sec 12	C173
CCN-9, 18	10/8/2010	T8S/R17E/Sec 12	C173
CCN-19, 20, 21, 22, 23, 28, 29, 30, 31, 32	10/18/2010	T8S/R17E/Sec 12	C173
CCN-24, 25, 33, 34, 35, 36	10/30/2010	T8S/R17E/Sec 12	C173
CCN-95, 96, 97, 103, 104, 105, 127, 128	10/17/2010	T8S/R18E/Sec 6	C178, C173
CCN-98, 99, 100, 106, 107, 108, 115, 116, 117, 118, 119, 122, 123, 124, 125, 126	10/9/2010	T8S/R18E/Sec 6	C178, C173
CCN- 101, 102, 109, 110	10/30/2010	T8S/R18E/Sec 6	C178, C173
CCN-111, 112, 113, 114, 120, 121	10/19/2010	T8S/R18E/Sec 6	C178, C173
CCN-37, 38, 45, 46	10/18/2010	T8S/R18E/Sec 7	C173
CCN-39, 47, 59, 60, 61, 68, 69, 70	10/31/2010	T8S/R18E/Sec 7	C173
CCN-40, 41, 48, 49, 57, 58, 66, 67	10/7/2010	T8S/R18E/Sec 7	C173
CCN-42, 43, 44, 50, 51, 52	10/6/2010	T8S/R18E/Sec 7	C173
CCN-53, 62	10/9/2010	T8S/R18E/Sec 7	C173
CCN-54, 55, 56, 63, 64, 65	10/19/2010	T8S/R18E/Sec 7	C173
CCN-71, 72	10/30/2010	T8S/R18E/Sec 7	C173
Wren-37, 38, 39, 40, 41,	6/26/2006	T7S/R18E/Sec 33	C170

**Table E-1. Mining Claims Crossed by Subroutes**

<b>Mining Claim Name</b>	<b>Location Date</b>	<b>Township/Range/Section</b>	<b>Link</b>
Parrot 1	3/2/1999	T7S/R18E/Sec 35	C170
Parrot 1, 2, 3	3/2/1999	T7S/R18E/ Sec 36	C170
Gal 1, 2	4/30/2008	T7S/R18E/ Sec 36	C170
Gal 375	10/1/2010	T7S/R18E/ Sec 36	C170
Gal 23, 24, 25, 26, 27, 28, 61, 62, 63	2/21/2008	T7S/R19E/Sec 31	C170
Gal 61, 62, 63, 80, 81, 114, 115	2/21/2008	T7S/R19E/Sec 32	C170
Gal 115	2/21/2008	T7S/R19E/Sec 33	C170
<b>Subroute 4C</b>			
<b>Subroute 4C1 – San Pedro Valley</b>			
Polo #17, #18, #19,#20	2/28/2007	T7S/R11E/Sec 14	C760
IET #59, #60, #61, #62	4/8/2005	T7S/R11E/Sec 15	C760
IET #63, #64, #69, #70	4/8/2005	T7S/R11E/Sec 23	C760
Polo #21, #22, #23, #24	2/28/2007	T7S/R11E/Sec 24	C760
Coyote #9, #10, #12	1/13/2000	T7S/R12E/Sec 29	C693
Happy 1	9/9/2010	T7S/R12E/Sec 29	C693
Pancho #21, #22, #23, #24	2/28/2007	T7S/R12E/Sec 30	C693, C760
Diatom No1, No. 2	2/20/2000	T9S/R17E/Sec 13	C660
Diatom No. 3	2/19/2000	T9S/R17E/Sec 13	C660
Diatom No. 4	2/18/2000	T9S/R17E/Sec 13	C660
<b>Subroute 4C2 – San Pedro Valley</b>			
Pard #13, #14, #15, #16, #17	3/19/1987	T8S/R11E/Sec 6	C820
Pard #18, #19, #20	3/19/1987	T8S/R11E/Sec 7	C820
Jacky #13R, #14R, #15R	1/5/1986	T8S/R11E/Sec 18	C820
Jacky #16R	1/3/1986	T8S/R11E/Sec 18	C820
Jacky #25R, #27R	1/5/1986	T8S/R11E/Sec 19	C820
Jacky #26R,#28R	1/3/1986	T8S/R11E/Sec 19	C820
Jacky #47R	1/5/1986	T8S/R11E/Sec 30	C820
Jacky #48R, #49R, #50R	1/3/1986	T8S/R11E/Sec 30	C820
Jacky #69R, #70R, #71R, #72R	1/3/1986	T8S/R11E/Sec 31	C820
Arkota 89, 90, 91, 92	9/1/2010	T9S/R11E/Sec 33	C818,
Arkota #89, #90,#91, #92	9/1/1965	T9S/R11E/Sec 33	C818,
Arkota #93, #94, #95, #96	9/23/2010	T9S/R11E/Sec 34	C680
Arkota #93, #94, #95, #96	9/1/1965	T9S/R11E/Sec 34	C680
Arkota #97, #98, #99, #100	9/23/2010	T9S/R11E/Sec 35	C680
Arkota #98, #99, #97, #100	9/1/1965	T9S/R11E/Sec 35	C680
<b>Subroute 4C3 – Tucson</b>			
Pard #13, #14, #15, #16, #17	3/19/1987	T8S/R11E/Sec 6	C820
Pard #18, #19, #20	3/19/1987	T8S/R11E/Sec 7	C820
Jacky #13R, #14R, #15R	1/5/1986	T8S/R11E/Sec 18	C820
Jacky #16R	1/3/1986	T8S/R11E/Sec 18	C820
Jacky #25R, #27R	1/5/1986	T8S/R11E/Sec 19	C820

**Table E-1. Mining Claims Crossed by Subroutes**

<b>Mining Claim Name</b>	<b>Location Date</b>	<b>Township/Range/Section</b>	<b>Link</b>
Jacky #26R,#28R	1/3/1986	T8S/R11E/Sec 19	C820
Jacky #47R	1/5/1986	T8S/R11E/Sec 30	C820
Jacky #48R, #49R, #50R	1/3/1986	T8S/R11E/Sec 30	C820
Jacky #69R, #70R, #71R, #72R	1/3/1986	T8S/R11E/Sec 31	C820
<b>Local Alternative Links for Subroute 4</b>			
CCN-37, 38, 45, 46	10/18/2010	T8S/R18E/Sec 7	C174
CCN-39, 47, 59, 60, 61, 68, 69, 70	10/31/2010	T8S/R18E/Sec 7	C174
CCN-40, 41, 48, 49, 57, 58, 66, 67	10/7/2010	T8S/R18E/Sec 7	C174
CCN-42, 43, 44, 50, 51, 52	10/6/2010	T8S/R18E/Sec 7	C174
CCN-53, 62	10/9/2010	T8S/R18E/Sec 7	C174
CCN-54, 55, 56, 63, 64, 65	10/19/2010	T8S/R18E/Sec 7	C174
CCN-71, 72	10/30/2010	T8S/R18E/Sec 7	C174
Arkota 89, 90, 91, 92	9/1/2010	T9S/R11E/Sec 33	C680b
Arkota #89, #90,#91, #92	9/1/1965	T9S/R11E/Sec 33	C680b
Source: BLM LR2000 database 2011 * Includes subroutes 1B1, 1B2, and 1B3			



**Table E-2. Mining Districts within the Study Area**

Name	County	State	Type	Links that Cross District
Lordsburg Mesa	Hidalgo	NM	Uranium	B121, B140, B160a
Gold Hill	Hidalgo	NM	Metals	
Bound Hill	Hidalgo	NM	Metals	
Lordsburg	Hidalgo	NM	Metals	B112
Kimball	Hidalgo	NM	Metals	B150a
Black Mountain	Luna	NM	Industrial Metals	
Cookes Peak Manganese	Luna	NM	Metals	
Fluorite Ridge	Luna	NM	Industrial Metals	A530, A520, B60, B80, B90
Lake Valley	Luna	NM	Metals	
Aden	Luna and Doña Ana	NM	Industrial Metals	
Caballo Mountains	Sierra	NM	Metals	
Rincon	Sierra	NM	Metals	
Engle	Sierra	NM	Coal	
Fra Cristobal Mountains	Sierra	NM	Metals	
Luis Lopez	Socorro	NM	Metals	
Chupadera Mountains	Socorro	NM	Metals	
Carthage Coal Field	Socorro	NM	Coal	A111
Chupadero	Socorro	NM	Metals	E133
Jornada del Muerto	Socorro	NM	Metals	A90
Jones Camp	Socorro	NM	Metals	
Chupadera Mesa	Socorro	NM	Metals	
Rayo	Socorro	NM	Metals	
Socorro	Socorro	NM	Metals	E101
Socorro Peak	Socorro	NM	Industrial Minerals	
Tecolote Hills	Lincoln	NM	Metals	A10, A21, A30
Unknown	Graham	AZ	Zeolites	B150b
Unknown	Graham	AZ	Polymetallic	
Unknown	Pima	AZ	Copper	
Unknown	Pima	AZ	Copper, Gold	
Unknown	Pinal	AZ	Gypsum	C173, C178, C174, C500, C502, C510, C501, C660
Unknown	Pinal	AZ	Polymetallic	C595, C620, C671
Unknown	Pinal	AZ	Copper	C671, C661, C670
Unknown	Pinal	AZ	Copper, Gold	
Unknown	Pinal	AZ	Copper	
Unknown	Pinal	AZ	Iron	C693
Unknown	Pinal	AZ	Tungsten	

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

<b>Link</b>	<b>Length of Link</b>	<b>Transmission Lines</b>	<b>Pipelines</b>	<b>Designated Utility Corridors</b>
<b>Subroute 1A1 – BLM Preferred Alternative</b>				
Links that do not parallel linear energy facilities: A10, E84, E85, E80d, E101, E133, E200				
A21	10.2	—	10.0	—
E82	9.9	—	8.3	—
E180	4.4	—	—	1.3 <sup>2</sup>
E211	14.1	14.1	—	10.1 <sup>1</sup>
A161	15.3	8.8	—	1.0 <sup>1</sup>
A161a	9.4	—	—	7.0 <sup>1</sup>
A260	28.4	20.4	—	17.0 <sup>1</sup>
A330a	14.1	14.1	—	—
A330b	25.5	25.5	—	—
A400	14.6	14.6	—	—
A440	12.4	12.4	—	—
A530	4.0	4.0	—	—
A520	0.5	0.2	—	—
<b>Totals</b>	<b>162.8</b>	<b>114.1</b>	<b>18.3</b>	<b>36.4<sup>1,2</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 140.7 miles</b>				
<b>Subroute 1A – North River Crossing</b>				
Links that do not parallel linear energy facilities: A10, A22, E80c, E80d, E101, E133, E200				
A21	10.2	—	10.0	—
E180	4.4	—	—	1.3 <sup>2</sup>
E211	14.1	14.1	—	10.1 <sup>1</sup>
A161	15.3	8.8	—	1.0 <sup>1</sup>
A161a	9.4	—	—	7.0 <sup>1</sup>
A270	24.8	—	—	0.5 <sup>1</sup>
A330a	14.1	14.1	—	—
A330b	25.5	25.5	—	—
A400	14.6	14.6	—	—
A440	12.4	12.4	—	—
A530	4.0	4.0	—	—
A520	0.5	0.2	—	—
<b>Totals</b>	<b>120.6</b>	<b>93.7</b>	<b>10.0</b>	<b>19.9<sup>1,2</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 113.5 miles</b>				
<b>Subroute 1B – San Antonio Crossing</b>				
<b>Subroute 1B1</b>				
Links that do not parallel linear energy facilities: A10, A22, E80c, E80d, E90, A90, A111, A112, A140, A143, , E130				
A21	10.2	—	10.0	—
A140	4.9	—	—	0.2 <sup>2</sup>
A160	8.0	—	—	0.3 <sup>1</sup>
A161	15.3	8.8	—	1.0 <sup>1</sup>
A161a	9.4	—	—	7.0 <sup>1</sup>

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

<b>Link</b>	<b>Length of Link</b>	<b>Transmission Lines</b>	<b>Pipelines</b>	<b>Designated Utility Corridors</b>
A270	24.8	—	—	0.5 <sup>1</sup>
A330a	14.1	14.1	—	—
A330b	25.5	25.5	—	—
A400	14.6	14.6	—	—
A440	12.4	12.4	—	—
A530	4.0	4.0	—	—
A520	0.5	0.2	—	—
<b>Totals</b>	<b>143.7</b>	<b>79.6</b>	<b>10.0</b>	<b>9.0<sup>1,2</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 98.6 miles</b>				
<b>Subroute 1B2</b>				
Links that do not parallel linear energy facilities: A10, A30, A50, A60, A90, A111, A112, A143				
A140	4.9	—	—	0.2 <sup>2</sup>
A160	8.0	—	—	0.3 <sup>1</sup>
A161	15.3	8.8	—	1.0 <sup>1</sup>
A161a	9.4	—	—	7.0 <sup>1</sup>
A270	24.8	—	—	0.5 <sup>1</sup>
A330a	14.1	14.1	—	—
A330b	25.5	25.5	—	—
A400	14.6	14.6	—	—
A440	12.4	12.4	—	—
A530	4.0	4.0	—	—
A520	0.5	0.2	—	—
<b>Totals</b>	<b>133.5</b>	<b>79.6</b>	<b>—</b>	<b>9.0<sup>1,2</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 89.6 miles</b>				
<b>Subroute 1B3</b>				
Links that do not parallel linear energy facilities: A10, A30, A40, A41, A80, A111, A112, A143				
A140	4.9	—	—	0.2 <sup>2</sup>
A160	8.0	—	—	0.3 <sup>1</sup>
A161	15.3	8.8	—	1.0 <sup>1</sup>
A161a	9.4	—	—	7.0 <sup>1</sup>
A270	24.8	—	—	0.5 <sup>1</sup>
A330a	14.1	14.1	—	—
A330b	25.5	25.5	—	—
A400	14.6	14.6	—	—
A440	12.4	12.4	—	—
A530	4.0	4.0	—	—
A520	0.5	0.2	—	—
<b>Totals</b>	<b>133.5</b>	<b>79.6</b>	<b>—</b>	<b>9.0<sup>1,2</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 88.6 miles</b>				
<b>Local Alternative Links for 1A and 1B1 (Gran Quivira Area)</b>				
Links that do not parallel linear energy facilities: E81, E84, E85				
E82-E83	20.7	—	10.7	—

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

Link	Length of Link	Transmission Lines	Pipelines	Designated Utility Corridors
<b>Totals</b>	<b>20.7</b>	—	<b>10.7</b>	—
<b>Total distance parallel to existing utilities and designated utility corridors: 10.7 miles</b>				
<b>Local Alternative Links 1A/1B1, 1B2, 1B3</b>				
Links that do not parallel linear energy facilities: A361-A430-A481				
A161b	18.6	—	—	0.3 <sup>1</sup>
A260	28.4	20.4	—	17.0 <sup>1</sup>
<b>Totals</b>	<b>47.0</b>	<b>20.4</b>	—	<b>17.3<sup>1</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 20.7 miles</b>				
<b>Crossover Links Groups 1B2/1B3: 0.0 miles*</b>				
Link A70 of this group does not parallel linear energy facilities				
<b>ROUTE GROUP 3: MIDPOINT SUBSTATION TO WILLOW-500 kV SUBSTATION</b>				
<b>Subroute 3A1 – BLM Preferred Alternative</b>				
Links that do not parallel linear energy facilities: B90, B120a, B151				
B60	1.6	0.5	—	—
B120b	24.1	18.6	18.6	—
B121	14.2	13.8	8.4	—
B140	8.3	—	—	0.3 <sup>1</sup>
B150a	22.1	—	22.1	1.7 <sup>1</sup>
B150b	25.8	—	8.0	—
B170	7.5	1.5	—	—
<b>Totals</b>	<b>129.3</b>	<b>34.4</b>	<b>57.1</b>	<b>2.0<sup>1</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 64.8 miles</b>				
<b>Subroute 3A – North</b>				
Links that do not parallel linear energy facilities: B90, B120a, B160b				
B60	1.6	0.5	—	—
B120b	24.1	18.6	18.6	—
B121	14.2	13.8	8.4	—
B160a	25.7	8.0	—	—
B170	7.5	1.5	—	—
<b>Totals</b>	<b>73.1</b>	<b>42.4</b>	<b>27.0</b>	—
<b>Total distance parallel to existing utilities and designated utility corridors: 42.4 miles</b>				
<b>Subroute 3B – South</b>				
Links that do not parallel linear energy facilities: B80, B151				
B60	1.6	0.5	—	—
B110a	20.2	14.1	14.1	1.2 <sup>1</sup>
B110b	17.4	8.0	17.0	2.0 <sup>1</sup>
B112	15.0	—	13.0	2.5 <sup>1</sup>
B150a	22.1	—	22.1	1.7 <sup>1</sup>
B150b	25.8	—	8.0	—
B170	7.5	1.5	—	—
<b>Totals</b>	<b>109.6</b>	<b>24.1</b>	<b>74.2</b>	<b>7.4<sup>1</sup></b>

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

Link	Length of Link	Transmission Lines	Pipelines	Designated Utility Corridors
<b>Total distance parallel to existing utilities and designated utility corridors: 76.2 miles</b>				
<b>Crossover Links Group 3A/3B</b>				
Links that do not parallel linear energy facilities: B140				
B140	8.3	—	—	0.3 <sup>1</sup>
B111	6.9	6.9	—	—
<b>Totals</b>	<b>6.9</b>	<b>6.9</b>	<b>—</b>	<b>0.3<sup>1</sup></b>
<b>Total distance parallel to existing utilities and designated utility corridors: 7.2 miles</b>				
<b>ROUTE GROUP 4: WILLOW-500 kV SUBSTATION TO PINAL CENTRAL SUBSTATION</b>				
<b>Subroute 4A – North of Mt. Graham</b>				
<b>Subroute 4A</b>				
Links that do not parallel linear energy facilities: B153b, C170, C178, C173, C592, C595, C620,C850,C880				
B153a	22.0	9.6	12.0	—
C760	3.1	—	3.1	—
C780	3.6	—	3.6	—
C830	4.3	—	4.3	—
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>37.6</b>	<b>12.2</b>	<b>25.0</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 27.6 miles</b>				
<b>Subroute 4B – Sulphur Springs Valley</b>				
<b>Subroute 4B</b>				
Links that do not parallel linear energy facilities: C72, C90, C130a, C130b, C170, C178, C173, C592, C595, C620, C850,C880				
C71	4.7	4.7	—	—
C72	2.1	1.3	—	—
C760	3.1	—	3.1	—
C780	3.6	—	3.6	—
C830	4.3	—	4.3	—
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>22.4</b>	<b>8.6</b>	<b>13.0</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 21.6 miles</b>				
<b>Subroute 4C</b>				
<b>Subroute 4C2c – BLM Preferred Alternative</b>				
Links that do not parallel linear energy facilities: C201,C441, C661, C670, C818,C820,C850,C880				
C71	4.7	4.7	—	—
C71a	1.0	1.0	—	—
C110	18.8	18.8	—	—
C212	3.9	3.9	2.0	—
C260	10.9	10.9	—	—
C261	6.4	6.4	—	—
C450	17.0	—	11.9	—
C680	26.1	23.9	—	—
C830	4.3	—	4.3	—

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

<b>Link</b>	<b>Length of Link</b>	<b>Transmission Lines</b>	<b>Pipelines</b>	<b>Designated Utility Corridors</b>
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>97.7</b>	<b>72.2<sup>3</sup></b>	<b>20.2</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 90.4 miles</b>				
<b>Subroute 4C1 – San Pedro Valley</b>				
Links that do not parallel linear energy facilities: C111, C270, C301, C331, C361, C470, C510, C660, C661, C670, C850, C880				
C71	4.7	4.7	—	—
C71a	1.0	1.0	—	—
C110	18.8	18.8	—	—
C212	3.9	3.9	2.0	—
C690	10.4	—	6.0	—
C691	3.5	—	3.5	—
C693	10.4	—	10.4	—
C760	3.1	—	3.1	—
C780	3.6	—	3.6	—
C830	4.3	—	4.3	—
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>74.7</b>	<b>31.0<sup>3</sup></b>	<b>34.9</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 63.9 miles</b>				
<b>Subroute 4C2 – San Pedro Valley</b>				
Links that do not parallel linear energy facilities: C111, C270, C271, C266, C276, C441, C266, C661, C670, C818, C820, C850, C880				
C71	4.7	4.7	—	—
C71a	1.0	1.0	—	—
C110	18.8	18.8	—	—
C212	3.9	3.9	2.0	—
C450	17.0	—	11.9	—
C680	26.1	23.9	—	—
C830	4.3	—	4.3	—
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>86.8</b>	<b>54.9<sup>3</sup></b>	<b>20.2</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 73.1 miles</b>				
<b>Subroute 4C3 – Tucson</b>				
Links that do not parallel linear energy facilities: C813, C816, C817, C820, C850, C880				
C71	4.7	4.7	—	—
C71a	1.0	1.0	—	—
C110	18.8	18.8	—	—
C212	3.9	3.9	2.0	—
C260	10.9	10.9	—	—
C261	6.4	6.4	—	—
F40a	15.1	15.1	—	—

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

<b>Link</b>	<b>Length of Link</b>	<b>Transmission Lines</b>	<b>Pipelines</b>	<b>Designated Utility Corridors</b>
F600	15.0	5.0	1.2	—
F60b	2.1	2.1	—	—
F82	0.5	0.5	—	—
F80	6.2	6.2	5.4	—
F111	15.7	3.3	9.4	—
F112	10.2	10.2	6.0	—
F510	8.6	1.5	7.6	—
F540	13.7	13.7	4.0	—
C810A	1.7	1.7 <sup>3</sup>	0.6	—
C810	2.0	2.0 <sup>3</sup>	—	—
C830	4.3	—	4.3	—
C840	2.0	—	2.0	—
C880a	2.6	2.6 <sup>3</sup>	—	—
<b>Totals</b>	<b>145.4</b>	<b>109.6<sup>3</sup></b>	<b>34.9</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 118.3 miles</b>				
<b>LOCAL ALTERNATIVE AND CROSSOVER LINKS FOR SUBROUTE 4</b>				
<b>Local Alternative Link for 4A,4B, 4C1</b>				
No links do not parallel linear energy facilities				
C790	8.8	4.4	—	—
<b>Totals</b>	<b>8.8</b>	<b>4.4</b>	<b>—</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 4.4 miles</b>				
<b>Local Alternative Links for 4A,4B,4C1,4C2,4C3</b>				
Links that do not parallel linear energy facilities: C870				
C860	6.9	1.0	—	—
C890	2.8	0.7	1.0	—
<b>Totals</b>	<b>9.7</b>	<b>1.7</b>	<b>1.0</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 1.7 miles</b>				
<b>Local Alternative Link for 4C1</b>				
There are no links that parallel linear energy facilities				
<b>Subroute 4C2 – Winchester and Tortolita Substations</b>				
Links that do not parallel linear energy facilities: C201, C815,C816, C813, C817				
C260-C261-C201	31.0	17.2	—	—
C680	26.1	23.0	—	—
C814	1.0	1.0	—	—
C812	3.3	1.5 <sup>3</sup>	—	—
C810	2.0	2.0 <sup>3</sup>	—	—
C810a	1.7	1.5 <sup>3</sup>	0.6	—
<b>Totals</b>	<b>65.1</b>	<b>46.2<sup>3</sup></b>	<b>0.6</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 46.2miles</b>				
<b>Local Alternative Links for 4C3</b>				
No links do not parallel linear energy facilities				
F40b-F51-F60a	11.1	10.5	0.9	—
F81a	16.5	9.2	3.2	—

**Table E-3. Existing Linear Facilities Parallel to Alternative Transmission Lines (in miles)**

<b>Link</b>	<b>Length of Link</b>	<b>Transmission Lines</b>	<b>Pipelines</b>	<b>Designated Utility Corridors</b>
F81b	15.7	15.0	0.3	—
C812	3.3	1.5 <sup>3</sup>	—	—
<b>Totals</b>	<b>46.6</b>	<b>36.2<sup>3</sup></b>	<b>4.4</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 39.4 miles</b>				
<b>Local Alternative Links for 4C1,4C2, 4C3</b>				
Links that do not parallel linear energy facilities:C72,C90, C121				
C211	2.0	1.6	—	—
<b>Totals</b>	<b>2.0</b>	<b>1.6</b>	<b>—</b>	<b>—</b>
<b>Total distance parallel to existing utilities and designated utility corridors: 1.6 miles</b>				
<b>Crossover Links for 4A, 4B, 4C1</b>				
Links that do not parallel linear energy facilities: C500, C501, C502, C174				
<b>Crossover Links for 4A,4B,4C1,4C2</b>				
Links that do not parallel linear energy facilities:C671				
* May not reflect a total of all utilities in subroute, due to overlap of multiple utilities in some cases.				
** All amounts given in this table are approximate				
<sup>1</sup> West Wide Energy Corridor (Section 368)				
<sup>2</sup> BLM Socorro Field Office Utility Corridor				
<sup>3</sup> Permitted and proposed Pinal Central Substation to Tortolita Substation 500 kV Transmission Line included in total miles				
<sup>4</sup> Proposed San Manuel 230 kV Inter-connect Transmission Line included in total miles				



**Table E-4. Subroute 4C3 – Tucson**

<b>Link</b>	<b>Land use within 200 feet of centerline</b>	<b>Location</b>
F111	Three residences	On the Southwest side of East Benson Highway
F111	103 residences and lots of Trailerancho Estates trailer park	Southwest side of East Benson Highway
F111	Sunhaven in Tucson complex's leasing office, pool, playground, and basketball courts	Southwest side of East Benson Highway
F111	Quickmart Gas Station	Southwest side of East Benson Highway
F111	Circle K Gas Station	Northeast corner of East Benson Highway and South Alvernon Way
F111	One residence	On South Rex Street, east of Alvernon Way
F111	Commercial auto shop	On southeast corner of South Alvernon Way and East Drexel Road
F111	Quik Mart Gas Station	On northeast corner of East Drexel Road and South Alvernon Way
F111	One residence	North of East Drexel Road
F111	42 residences in Mortimore Subdivision	West of South Alvernon Way, along South Olympia Street, East Nebraska Street, and East Concord Street
F111	One commercial building with an additional five buildings in the Coronado Pointe Commerce Center	East of South Palo Verde Road
F111	Three commercial/light industrial buildings in the Palo Verde Commerce Center	West of South Palo Verde Road
F111	One light industrial building on the south side and a hotel on the northeast side within the Sunbelt Commerce Center	On South Outlet Center Drive, south of East Irvington Road
F111	Gas station	On northwest corner of East Irvington Road and South Country Club Road
F111	Seven residences	On East Bernard Drive south of East Ajo Way, southwest of I-10
F111	Storage facility	On north side of East Ajo Way, southwest of I-10
F111	Motel and commercial building	East of I-10, on the north and south sides of South 4 <sup>th</sup> Avenue
F111	Crosses a motel and hotel	North side of I-10, on the west and east sides of South 6 <sup>th</sup> Avenue
F111	Light industrial building and 11 residences in Mission View Subdivision	North of I-10, on the south side of South 8 <sup>th</sup> Avenue and west side of South 8 <sup>th</sup> Avenue
F111	Light industrial building, 20 residences, a playground, and 2 commercial buildings	West of I-10, north and south of West 40 <sup>th</sup> Street, east of I-19
F112	12 residences	On eastside of South Cottonwood Lane, south of West 29 <sup>th</sup> Street
F112	Hotel	West of I-10, south of West Congress Street
F112	Commercial building	West of I-10, north of West Congress Street
F112	Five light industrial buildings and two buildings that are part of an apartment complex	West of I-10, on south side of West St. Mary's Road
F112	Two residences and a park area with a trail	West of I-10, east of West Riverview Blvd.
F112	Gas station	West of I-10, on West Grant Road

**Table E-4. Subroute 4C3 – Tucson**

<b>Link</b>	<b>Land use within 200 feet of centerline</b>	<b>Location</b>
F112	Two hotels and two light industrial buildings	West of I-10, north of West Grant Road
F112	10 residences	West of I-10, east of North Silverbell Road
F112	Commercial building	North of West Sweetwater Drive and east of North Silverbell Drive
F112	One residence	On southwest corner of North Silverbell Road and West El Camino Del Cerro
F112	Three residences	On east side of North Silverbell Drive
<b>Total</b>	<b>Residences</b>	<b>216</b>
	<b>Commercial</b>	<b>24</b>
	<b>Light Industrial</b>	<b>13</b>
	<b>Other</b>	<b>6</b>

**Table E-5. Local Alternative Links**

<b>Link</b>	<b>Land use within 200feet of centerline</b>	<b>Location</b>
F81b	Three residences in Jusnic Estates subdivision	South of West River Road
F81b	Seven residences in Rillito at La Cholla subdivision	South of West River Road, west of North La Cholla Boulevard
F81b	Two light industrial buildings	East of North La Cholla Boulevard and south of West River Road
F81b	One residence	On West Fairview Street, east of North Flowing Wells Road
F81b	One light industrial building	West of North Oracle Road, on North Old Oracle Road
F81b	One light industrial building	East of North Oracle Road
F81b	Three commercial buildings	On west and east sides of North 1 <sup>st</sup> Avenue, north of East Westmore Road
F81b	22 residences and 4 commercial buildings	On west side of North Campbell Avenue
F81b	Two residences and a community center	On the south side of East River Road, east of North of Cactus Boulevard
F81b	60 townhome residences	On the eastside of Country Club Road, west of East Allen Road
F81b	10 residences and 1 light industrial buildings	North of east Greenlee Road, east of North Country Club Road
F81b	Two recreation buildings	East of North Alvernon Way, north of East Paradise Falls Drive
F81b	A residence and two outstructures	West of North Craycroft Road
F81b	A residence	East of North Craycroft Road, between East River Road and East Grant Road
F81b	Six commercial buildings, portions within Milestone Commercial	On East Grant Road, east of North Wilmot Road, and North of East Tanque Verde Road
F81b	Seven residences and 11 commercial buildings	On eastside of North Kolb Road, south of East Tanque Verde Road
F81b	Four commercial buildings	On north side of East Speedway Boulevard, east of North Kolb Road
F81b	Two large office buildings	On south side of East Speedway Boulevard, on the eastside of North Finance Center Drive and East Rosewood Street.
F81a	Hotel	On the southwest corner of South Prudence Road and East Broadway Boulevard
F81a	Six office buildings	East of South Pantano Road and south of East 22 <sup>nd</sup> Street
F81a	Community center	North of Research Loop, east of South Pantano Road
F81a	Six storage buildings	North of East Golf Links Road, west of South Pantano Parkway
F81a	Two residences	North of East Drexel Road and east of Melpomence Way
<b>Total</b>	<b>Residences</b>	<b>119</b>
	<b>Commercial</b>	<b>42</b>
	<b>Light Industrial</b>	<b>6</b>
	<b>Other</b>	<b>4</b>

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