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Western Power
Kojonup-Albany Electricity Transmission Line
Corridor Selection
Addendum
May 2008



Background to the Addendum

Following the publication of the *Kojonup-Albany Electricity Transmission Line Corridor Selection Report*, it was identified that revisions to some sections of the impact assessment data were needed as follows:

- ▶ The assessment of the Green link between Sector B and Sector E; and
- ▶ The views assessment for each of the options between Kojonup and Sector D.

These revisions are the subject of this Addendum, and are discussed further below.

The revisions do not affect the outcome of the preferred corridor, which is mostly Red with a section of Yellow as shown in Figure 7 of the main report, however this Addendum presents the revised data for accuracy and completeness.

This Addendum should be read in conjunction with the main report.

Assessment of the Green link between Sector B and Sector E

The revisions to Green link (between Sector B and Sector E) were needed due to some of the criteria being double-counted in the section where the Green link overlaps with either the Red corridor or the Blue corridor.

This occurred as a result of the way the boundaries were created within which to measure the criteria.

The changes made to the data, and the full outcomes of the MCA and the graph of the rankings, are shown in the tables at the end of this Addendum.

As mentioned, these revisions do not affect the outcome of the preferred corridor, which is mostly Red with a section of Yellow.

For the section between Kojonup and Sector D, **Option 7 (RRRY) remains the preferred corridor option** on average and across all stakeholder groups.

There was some re-arrangement of the ranking of the subsequent options, with Option 11 (BGRY) now ranked second (previously fourth), and Option 5 (YRRY) now ranked third (previously second). The weighted score of Option 7 (RRRY) was approximately 4.5% greater than that of the second ranked option, with the five highest ranked options all with weighted scores within approximately 11% of each other.

The impact assessments and scores for the section from Sector D to Albany were not affected by these revisions. As discussed in the main report, for this section, the Red corridor is the preferred option overall and across all stakeholder groups.

Assessment of views for each option between Kojonup and Sector D

Whilst reviewing all of the data at this time, it was also identified that some double-counting had occurred in the views assessment, at the points where the Blue, Red and Yellow corridors intersect between Kojonup and Sector D.

For this particular assessment, the double-counting was a result of the way in which the four different distance bands were used to count roads, residences and tourism and other sites affected. It is the only assessment to be affected in this way, and does not affect the section from Sector D to Albany.



As undertaking this assessment for the entire corridor options is an extensive exercise, we have used a sensitivity analysis approach to account for the overlap. This sensitivity test has been applied after the revisions to the data for the Green link described above, and so includes both the revised Green link data and the sensitivity test.

The approach used was to test whether the outcome would change if Option 7 (RRRY) had a higher impact on views than anticipated, compared to the other options. To test this, the scores for each of the indicators in the assessment of views were increased by 25%, compared to the remaining options.

This is the same as saying that the impact of Option 7 (RRRY) on views is worse than it was previously (less preferred) by an amount of 25%.

The sensitivity test showed that with this change to the performance of Option 7 (RRRY), it remained ranked first on average, and across the majority of the stakeholder groups. Option 11 (BGRY) remains ranked second on average, and from the perspective of most stakeholder groups.

Kojonup - Albany Electricity Transmission Line Corridor Selection
Raw scores by sector

Notes:

- b refers to a higher score being a better outcome, or a *benefit*
c refers to a higher score being a worse outcome, or a *cost*
- Data for the views assessment contains some double-counting in the areas where the Blue, Red and Yellow corridors intersect between Kojonup and Sector D. This has been accounted for through a sensitivity analysis, as detailed in the text of the Addendum.

1 Revisions to data for the Green link (Sector B to Sector E) are shown in bold red

Criteria	Indicators	Measure	Unit	Scores by Sector													
				Green B-E	Yellow Koj-A	Yellow A-C	Yellow C-D	Yellow D-Alb	Red Koj-A	Red A-E	Red E-C	Red C-D	Red D-Alb	Blue Koj-B	Blue B-D	Blue D-Alb	Cost or benefit ¹
Direct private land impacts	Proximity to homesteads	Number of homesteads within each corridor	number	0	5	29	17	21	4	0	19	26	29	10	52	25	c
	Property numbers	Number of properties, in terms of lots, within or intersected by each corridor	number	0	43	194	70	83	41	30	150	88	79	40	257	82	c
	Property size	Number of properties within or intersected by each corridor that are less than 100 acres in area	number	0	15	24	12	13	12	7	8	23	13	14	31	15	c
Business impacts	Loss of productive land after construction	Probability of extent of productive land lost after construction for each business use type	area (ha)	0	1	50	70	42	1	1	40	55	40	1	86	39	c
	Loss of aesthetic attributes in corridor	Number of businesses in each corridor that rely on visual appreciation to attract business	number	0	0	0	1	0	0	0	0	0	0	0	3	0	c
	Loss of aesthetic attributes within 2 km of corridor	Number of businesses within 2 km of each corridor that rely on visual appreciation to attract business	number	0	0	0	1	1	0	0	1	2	1	0	2	1	c
	High land capability	Level of impact on high-capability land based on the land capability rating for agricultural purposes along each corridor	area (ha)	0	0	4,357	1,302	1,827	0	0	2,102	1,126	956	0	1,425	710	c
	Low land capability	Level of impact on low-capability land based on the land capability rating for agricultural purposes along each corridor	area (ha)	0	175	1,793	232	745	168	120	2,298	443	1,553	235	3,903	1,651	b
Land operation impacts	Bio-security risk	Number of properties in each corridor that have had weeds recorded within the last five years	number	1	1	12	1	2	0	4	10	2	2	1	19	2	c
	Airstrips and traffic	Number of airstrips for agricultural spraying or other land operation purposes located in each corridor	number	0	0	1	0	0	0	0	0	1	1	2	2	2	c
Impacts on public infrastructure	Impacts on other services / utilities	Number of public services or utilities that may potentially be impacted by transmission line, including water, communications and rail	number	0	0	0	0	0	0	0	0	0	0	0	0	0	c
Views ²	Roads	Length of roads where the corridor is the foreground (within 500 m) and views are affected	length (km)	4	7	57	31	23	5	3	45	24	14	10	60	15	c
		Length of roads where the corridor is mid-distant (between 500 m and 4 km) and views are affected	length (km)	59	156	451	210	268	142	75	370	250	198	150	540	173	c
		Length of roads where the corridor is distant (between 4 km and 7 km) and views are affected	length (km)	98	176	451	249	222	172	108	298	203	212	186	557	233	c
		Length of roads where the corridor is far distant (between 7 km and 16 km) and views are affected	length (km)	636	630	1,599	1,170	1,699	614	637	1,554	1,137	1,605	695	2,182	1,601	c
	Residences	Number of residences/buildings where the corridor is the foreground (within 500 m) and views are affected	number	0	4	21	11	16	3	0	12	13	23	4	55	19	c
		Number of residences/buildings where the corridor is mid-distant (between 500 m and 4 km) and views are affected	number	54	342	391	182	318	309	83	293	241	299	310	514	312	c
		Number of residences/buildings where the corridor is distant (between 4 km and 7 km) and views are affected	number	84	600	364	211	265	604	120	228	195	331	589	525	326	c
		Number of residences/buildings where the corridor is far distant (between 7 km and 16 km) and views are affected	number	1,158	622	1,731	1,698	8,553	601	1,139	1,774	1,737	8,354	695	4,073	8,854	c
	Tourism / recreation sites / significant features	Number of sites where the corridor is the foreground (within 500 m) and views are affected	number	0	0	1	1	1	0	0	1	0	0	0	1	1	c
		Number of sites where the corridor is mid-distant (between 500 m and 4 km) and views are affected	number	0	4	6	6	7	3	1	6	7	8	4	22	10	c
		Number of sites where the corridor is distant (between 4 km and 7 km) and views are affected	number	2	3	8	10	6	4	2	5	13	7	3	12	4	c
		Number of sites where the corridor is far distant (between 7 km and 16 km) and views are affected	number	13	8	25	25	38	8	13	23	22	35	12	48	37	c
Impacts on recreation	Land-based recreation	Number of recreational amenities, including walking trails, camping areas and other recreation sites, within each corridor	number	0	0	0	6	1	0	0	4	1	0	0	0	0	c
	Aerial recreation	Potential level of impact of each corridor on aerial recreation	scale	0	0	0	0	0	0	0	0	0	0	0	0	0	c
Electromagnetic fields	Proximity to homesteads	Number of homesteads within the corridor or 500 m of the corridor	number	0	11	56	33	59	10	0	43	36	45	17	86	46	c
Indigenous heritage	Ethnographic and archaeological sites	Number of ethnographic or archaeological Indigenous heritage sites within each corridor	number	0	0	7	2	0	0	1	2	2	0	1	9	0	c
Cultural (non-Indigenous) heritage	Heritage sites	Number of heritage sites, as listed on the Heritage Council of Western Australia database, located within each corridor	number	0	0	0	0	0	0	0	0	0	0	0	0	0	c
Flora and vegetation	Native vegetation	Area of native vegetation within each corridor	area (ha)	59	275	4,261	2,320	1,514	236	135	3,439	1,734	938	303	4,186	834	c
	Restrictive covenants and memorials	Number of covenants or memorials within each corridor	number	0	0	32	7	3	0	0	30	1	4	0	43	4	c
	Declared Rare Flora	Number of occurrences of Declared Rare Flora within each corridor	number	0	0	0	2	0	0	0	0	1	2	0	9	3	c
	Priority Flora	Number of occurrences of Priority Flora within each corridor	number	0	0	2	1	2	0	0	0	1	4	0	14	7	c
	Threatened Ecological Communities	Number of occurrences of Threatened Ecological Communities within each corridor	number	0	0	0	0	0	0	0	0	0	0	0	0	0	c
	Fragmentation	Area of remnant native vegetation transected by the transmission line	area (ha)	0	0	2,503	1,270	641	0	0	495	1,087	81	0	930	75	c
Fauna	Threatened Species	Number of Threatened Species expected to occur within each corridor	number	0	0	1	0	0	0	0	0	0	2	0	2	2	c
Hydrology	Rivers and creeks	Area of riparian vegetation that could potentially be impacted by crossings of rivers or creeks	area (ha)	0	1	160	17	17	1	17	89	49	14	7	163	14	c
	Wetlands	Area of wetlands located in each corridor	area (ha)	0	0	49	0	41	0	0	93	64	8	0	48	53	c
	Salt affected land	Area of saline affected land located within each corridor	area (ha)	4	168	357	60	9	143	34	391	46	14	122	398	17	c
Project cost	Construction cost	Estimate of the project cost	\$	1,695,840	5,125,600	32,728,000	11,275,200	9,973,600	4,285,600	2,225,760	28,173,600	11,164,800	8,756,800	5,746,400	36,316,000	8,606,400	c
	Easement compensation	Cost of easement compensation along each of the transmission lines	\$	89,250	263,900	1,828,500	1,113,000	1,061,000	225,750	119,000	1,383,250	1,123,500	1,008,500	297,850	2,103,800	994,550	c
Construction issues	Road crossings	Number of road crossings within each corridor	number	0.0	3.0	26.0	13.0	10.0	2.0	1.0	20.0	13.0	7.0	3.0	32.0	6.0	b
	River/creek crossings	Number of river/creek crossings within each corridor	number	1.0	3.0	32.0	6.0	5.0	3.0	1.0	31.0	10.0	4.0	7.0	5.0	3.0	c
	Dam crossings	Number of dam crossings within each corridor	number	10.0	74.0	388.0	150.0	142.0	63.0	34.0	356.0	161.0	178.0	76.0	579.0	179.0	c

Kojonup - Albany Electricity Transmission Line Corridor Selection
Criteria scores by option - indicator level
Kojonup to Sector D

Notes:
1. b refers to a higher score being a better outcome, or *abeneffit*
c refers to a higher score being a worse outcome, or *acost*
2. All scores standardised from 0 to 1 for each indicator
Standardised for benefits, so a value of 1 is a better outcome

Criteria	Indicators	Measure	Unit	Indicator Scores by Option													Cost or benefit ¹
				1YYY	2YYR	3RYR	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	
Direct private land impacts	Proximity to homesteads	Number of homesteads within each corridor	number	51	60	50	59	41	50	40	49	57	56	46	55	62	c
	Property numbers	Number of properties, in terms of lots, within or intersected by each corridor	number	307	325	305	323	293	311	291	309	330	328	260	278	297	c
	Property size	Number of properties within or intersected by each corridor that are less than 100 acres in area	number	51	62	48	59	42	53	39	50	53	50	34	45	45	c
Business impacts	Loss of productive land after construction	Probability of extent of productive land lost after construction for each business use type	area (ha)	121	107	122	107	112	97	112	97	88	88	111	97	88	c
	Loss of aesthetic attributes in corridor	Number of businesses in each corridor that rely on visual appreciation to attract business	number	1	0	1	0	1	0	1	0	3	3	1	0	3	c
	Loss of aesthetic attributes within 2 km of corridor	Number of businesses within 2 km of each corridor that rely on visual appreciation to attract business	number	1	2	1	2	2	3	2	3	2	2	2	3	2	c
	High land capability	Level of impact on high-capability land based on the land capability rating for agricultural purposes along each corridor	area (ha)	5,659	5,483	5,659	5,483	3,404	3,228	3,404	3,228	1,425	1,425	3,404	3,228	1,425	c
Land operation impacts	Low land capability	Level of impact on low-capability land based on the land capability rating for agricultural purposes along each corridor	area (ha)	2,200	2,411	2,193	2,404	2,825	3,036	2,818	3,029	4,198	4,191	2,765	2,976	4,138	b
	Bio-security risk	Number of properties in each corridor that have had weeds recorded within the last five years	number	14	15	13	14	16	17	15	16	25	24	13	14	20	c
Impacts on public infrastructure	Airstrips and traffic	Number of airstrips for agricultural spraying or other land operation purposes located in each corridor	number	1	2	1	2	0	1	0	1	2	2	2	3	4	c
	Impacts on other services / utilities	Number of public services or utilities that may potentially be impacted by transmission line, including water, communications and rail	number	0	0	0	0	0	0	0	0	0	0	0	0	0	c
Views 2	Roads	Length of roads where the corridor is the foreground (within 500 m) and views are affected	length (km)	95	88	92	85	85	78	83	76	74	72	91	84	71	c
		Length of roads where the corridor is mid-distant (between 500 m and 4 km) and views are affected	length (km)	818	858	803	843	811	851	797	837	830	815	790	830	690	c
		Length of roads where the corridor is distant (between 4 km and 7 km) and views are affected	length (km)	876	830	872	825	831	785	827	781	940	935	831	785	743	c
		Length of roads where the corridor is far distant (between 7 km and 16 km) and views are affected	length (km)	3,400	3,367	3,384	3,351	3,991	3,958	3,976	3,943	4,084	4,069	4,055	4,022	2,877	c
	Residences	Number of residences/buildings where the corridor is the foreground (within 500 m) and views are affected	number	36	38	35	37	27	29	26	28	59	58	27	29	59	c
		Number of residences/buildings where the corridor is mid-distant (between 500 m and 4 km) and views are affected	number	915	974	882	941	900	959	867	926	993	960	839	898	824	c
		Number of residences/buildings where the corridor is distant (between 4 km and 7 km) and views are affected	number	1,175	1,159	1,179	1,163	1,159	1,143	1,163	1,147	1,329	1,333	1,112	1,096	1,114	c
	Tourism / recreation sites / significant features	Number of residences/buildings where the corridor is far distant (between 7 km and 16 km) and views are affected	number	4,051	4,090	4,030	4,069	5,233	5,272	5,212	5,251	6,992	6,971	5,325	5,364	4,768	c
		Number of sites where the corridor is the foreground (within 500 m) and views are affected	number	2	1	2	1	2	1	2	1	1	1	2	1	1	c
		Number of sites where the corridor is mid-distant (between 500 m and 4 km) and views are affected	number	16	17	15	16	17	18	16	17	27	26	16	17	26	c
		Number of sites where the corridor is distant (between 4 km and 7 km) and views are affected	number	21	24	22	25	20	23	21	24	19	20	20	23	15	c
	Impacts on recreation	Number of sites where the corridor is far distant (between 7 km and 16 km) and views are affected	number	58	55	58	55	69	66	69	66	82	82	73	70	60	c
Land-based recreation		Number of recreational amenities, including walking trails, camping areas and other recreation sites, within each corridor	number	6	1	6	1	10	5	10	5	0	10	5	0	c	
Aerial recreation		Potential level of impact of each corridor on aerial recreation	scale	0	0	0	0	0	0	0	0	0	0	0	0	c	
Electromagnetic fields		Proximity to homesteads	Number of homesteads within the corridor or 500 m of the corridor	number	100	103	99	102	87	90	86	89	97	96	93	96	103
Indigenous heritage	Ethnographic and archaeological sites	Number of ethnographic or archaeological Indigenous heritage sites within each corridor	number	9	9	9	9	5	5	5	5	10	10	5	5	10	c
Cultural (non-Indigenous) heritage	Heritage sites	Number of heritage sites, as listed on the Heritage Council of Western Australia database, located within each corridor	number	0	0	0	0	0	0	0	0	0	0	0	0	c	
Flora and vegetation	Native vegetation	Area of native vegetation within each corridor	area (ha)	6,857	6,271	6,817	6,231	6,170	5,584	6,130	5,544	4,656	4,616	6,121	5,535	4,489	c
	Restrictive covenants and memorials	Number of covenants or memorials within each corridor	number	39	33	39	33	37	31	37	31	43	43	37	31	43	c
	Declared Rare Flora	Number of occurrences of Declared Rare Flora within each corridor	number	2	1	2	1	2	1	2	1	9	9	2	1	9	c
	Priority Flora	Number of occurrences of Priority Flora within each corridor	number	3	3	3	3	1	1	1	1	14	14	1	1	14	c
	Threatened Ecological Communities	Number of occurrences of Threatened Ecological Communities within each corridor	number	0	0	0	0	0	0	0	0	0	0	0	0	0	c
	Fragmentation	Area of remnant native vegetation transected by the transmission line	area (ha)	3,772	3,590	3,772	3,590	1,765	1,583	1,765	1,583	930	930	1,765	1,583	930	c
Fauna	Threatened Species	Number of Threatened Species expected to occur within each corridor	number	1	1	1	1	0	0	0	0	2	2	0	0	2	c
Hydrology	Rivers and creeks	Area of riparian vegetation that could potentially be impacted by crossings of rivers or creeks	area (ha)	178	210	178	210	125	157	125	157	182	182	114	145	171	c
	Wetlands	Area of wetlands located in each corridor	area (ha)	49	113	49	113	93	158	93	158	48	48	93	158	48	c
	Salt affected land	Area of saline affected land located within each corridor	area (ha)	584	571	560	546	652	638	627	614	602	578	576	563	520	c
Project cost	Construction cost	Estimate of the project cost	\$	49,128,800	49,018,400	48,288,800	48,178,400	46,800,160	46,689,760	45,960,160	45,849,760	45,363,200	44,523,200	46,891,040	46,780,640	42,062,400	c
	Easement compensation	Cost of easement compensation along each of the transmission lines	\$	3,205,400	3,215,900	3,167,250	3,177,750	2,879,150	2,889,650	2,841,000	2,851,500	2,575,950	2,537,800	2,883,350	2,893,850	2,401,650	c
Construction issues	Road crossings	Number of road crossings within each corridor	number	42	42	41	41	37	37	36	36	36	35	36	35	b	
	River/creek crossings	Number of river/creek crossings within each corridor	number	41	45	41	45	41	45	41	45	10	10	45	49	12	c
	Dam crossings	Number of dam crossings within each corridor	number	612	623	601	612	614	625	603	614	697	686	592	603	655	c

Standardised Matrix															Cost or benefit ²
1YYY	2YYR	3RYR	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	Cost or benefit ²		
0.50	0.09	0.55	0.14	0.95	0.55	1.00	0.59	0.23	0.27	0.73	0.32	0.00	b		
0.33	0.07	0.36	0.10	0.53	0.27	0.56	0.30	0.00	0.03	1.00	0.74	0.47	b		
0.39	0.00	0.50	0.11	0.71	0.32	0.82	0.43	0.32	0.43	1.00	0.61	0.61	b		
0.01	0.43	0.00	0.42	0.30	0.72	0.29	0.71	0.98	0.98	0.31	0.73	1.00	b		
0.67	1.00	0.67	1.00	0.67	1.00	0.67	1.00	0.00	0.00	0.67	1.00	0.00	b		
1.00	0.50	1.00	0.50	0.50	0.00	0.50	0.00	0.50	0.50	0.00	0.50	0.00	b		
0.00	0.04	0.00	0.04	0.53	0.57	0.53	0.57	1.00	1.00	0.53	0.57	1.00	b		
0.00	0.11	0.00	0.11	0.32	0.42	0.31	0.42	1.00	1.00	0.29	0.39	0.97	b		
0.92	0.83	1.00	0.92	0.75	0.67	0.83	0.75	0.00	0.08	1.00	0.92	0.42	b		
0.75	0.50	0.75	0.50	1.00	0.75	1.00	0.75	0.50	0.50	0.50	0.25	0.00	b		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b		
0.00	0.30	0.09	0.39	0.38	0.68	0.48	0.77	0.85	0.95	0.16	0.45	1.00	b		
0.24	0.00	0.33	0.09	0.28	0.04	0.36	0.13	0.17	0.25	0.41	0.17	1.00	b		
0.33	0.56	0.35	0.58	0.55	0.79	0.57	0.81	0.00	0.02	0.55	0.79	1.00	b		
0.57	0.59	0.58	0.61	0.08	0.10	0.09	0.12	0.00	0.01	0.02	0.05	1.00	b		
0.70	0.64	0.73	0.67	0.97	0.91	1.00	0.94	0.00	0.03	0.97	0.91	0.00	b		
0.46	0.11	0.66	0.31	0.55	0.20	0.75	0.40	0.00	0.20	0.91	0.56	1.00	b		
0.67	0.73	0.65	0.72	0.73	0.80	0.72	0.78	0.02	0.00	0.93	1.00	0.92	b		
0.99	0.98	1.00	0.99	0.59	0.58	0.60	0.59	0.00	0.01	0.56	0.55	0.75	b		
0.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	b		
0.92	0.83	1.00	0.92	0.83	0.75	0.92	0.83	0.00	0.08	0.92	0.83	0.08	b		
0.40	0.10	0.30	0.00	0.50	0.20	0.40	0.10	0.60	0.50	0.50	0.20	1.00	b		
0.89	1.00	0.89	1.00	0.48	0.59	0.48	0.59	0.00	0.00	0.33	0.44	0.81	b		
0.40	0.90	0.40	0.90	0.00	0.50	0.00	0.50	1.00	1.00	0.00	0.50	1.00	b		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b		
0.18	0.00	0.24	0.06	0.94	0.76	1.00	0.82	0.35	0.41	0.59	0.41	0.00	b		
0.20	0.20	0.20	0.20	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	b		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b		
0.00	0.25	0.02	0.26	0.29	0.54	0.31	0.55	0.93	0.95	0.31	0.56	1.00	b		
0.33	0.83	0.33	0.83	0.50	1.00	0.50	1.00	0.00	0.00	0.50	1.00	0.00	b		
0.88	1.00	0.88	1.00	0.88	1.00	0.88	1.00	0.00	0.00	0.88	1.00	0.00	b		
0.85	0.85	0.85	0.85	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	b		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b		
0.00	0.06	0.00	0.06	0.71	0.77	0.71	0.77	1.00	1.00	0.71	0.77	1.00	b		
0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	b		
0.33	0.00	0.33	0.00	0.88	0.55	0.88	0.55	0.29	0.29	1.00	0.67	0.41	b		
0.99	0.40	0.99	0.40	0.59	0.00	0.59	0.00	1.00	1.00	0.59	0.00	1.00	b		
0.51	0.61	0.70	0.80	0.00	0.10	0.19	0.29	0.38	0.56	0.57	0.67	1.00	b		
0.00	0.02	0.12	0.13	0.33	0.35	0.45	0.46	0.53	0.65	0.32	0.33	1.00	b		
0.01	1.00	0.06	0.05	0.41	0.40	0.46	0.45	0.79	0.83	0					

Kojonup - Albany Transmission Line Corridor Selection
 Multi-criteria analysis (by additive weighting) and ranking of options
 Kojonup to Sector D

Criteria	Criteria Weightings by Stakeholder Group										Criteria Scores by Option													Standardised Scores														
	Property owner	Property manager / tenant	Local business	Regional business	Industry group	Local environment / community group	Local Government	State Government agency	State or Federal politician	Average all	1YYY	2YYR	3RY	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGY	12BGR	13BB	Cost or benefit	1YYY	2YYR	3RY	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGY	12BGR	13BB	
Direct private land impacts	11.84	10.91	11.74	12.43	12.05	11.48	10.80	10.83	13.44	11.78	0.41	0.05	0.47	0.11	0.73	0.38	0.79	0.44	0.18	0.24	0.91	0.56	0.36	b	0.41	0.00	0.48	0.07	0.79	0.38	0.86	0.45	0.15	0.22	1.00	1.00	0.59	0.36
Business impacts	11.29	10.65	11.34	11.81	10.73	11.06	10.70	9.35	13.44	11.14	0.34	0.42	0.33	0.41	0.46	0.54	0.46	0.54	0.70	0.70	0.46	0.54	0.69	b	0.00	0.23	0.00	0.22	0.35	0.58	0.35	0.57	1.00	1.00	0.35	0.57	0.99	
Land operation impacts	10.14	9.88	10.42	10.14	9.69	10.45	10.39	9.28	7.38	10.11	0.83	0.67	0.88	0.71	0.88	0.71	0.92	0.75	0.25	0.29	0.75	0.58	0.21	b	0.88	0.65	0.94	0.71	0.94	0.71	1.00	0.76	0.06	0.12	0.76	0.53	0.00	
Impacts on public infrastructure	5.79	5.73	5.96	5.46	6.77	5.33	7.47	6.35	7.42	5.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Views	8.45	7.79	8.44	8.58	8.53	9.14	8.08	6.04	5.24	8.39	0.51	0.57	0.55	0.61	0.50	0.55	0.53	0.59	0.22	0.25	0.52	0.58	0.80	b	0.51	0.61	0.57	0.67	0.48	0.58	0.54	0.64	0.00	0.06	0.52	0.62	1.00	
Impacts on recreation	5.64	5.52	5.66	5.28	6.12	5.89	5.78	5.27	5.95	5.72	0.20	0.45	0.20	0.45	0.00	0.25	0.00	0.25	0.50	0.50	0.00	0.25	0.50	b	0.40	0.90	0.40	0.90	0.00	0.50	0.00	0.50	1.00	1.00	0.00	0.50	1.00	
Electromagnetic fields	8.89	8.67	8.88	8.70	6.18	8.03	8.60	4.90	6.82	8.67	0.18	0.00	0.24	0.06	0.94	0.76	1.00	0.82	0.35	0.41	0.59	0.41	0.00	b	0.18	0.00	0.24	0.06	0.94	0.76	1.00	0.82	0.35	0.41	0.59	0.41	0.00	
Indigenous heritage	3.88	4.24	3.68	3.74	4.42	3.95	4.41	5.59	1.49	3.96	0.20	0.20	0.20	0.20	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	b	0.20	0.20	0.20	0.20	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	
Cultural (non-Indigenous) heritage	4.62	5.14	4.57	4.42	4.87	5.14	6.27	6.07	3.72	4.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Flora and vegetation	7.54	7.99	7.50	7.70	7.38	8.04	7.37	8.51	10.49	7.59	0.34	0.50	0.35	0.50	0.56	0.72	0.56	0.72	0.32	0.32	0.57	0.72	0.33	b	0.05	0.44	0.06	0.45	0.60	0.99	0.61	1.00	0.00	0.01	0.61	1.00	0.03	
Fauna	6.75	7.43	6.68	6.78	6.82	7.16	6.07	7.98	6.73	6.83	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	b	0.50	0.50	0.50	0.50	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	
Hydrology	7.51	7.17	7.67	7.35	7.19	8.24	7.29	6.58	7.42	7.48	0.61	0.34	0.67	0.40	0.49	0.22	0.55	0.28	0.56	0.62	0.72	0.45	0.80	b	0.67	0.21	0.77	0.31	0.46	0.00	0.57	0.11	0.58	0.68	0.86	0.99	1.00	
Project cost	3.47	4.11	3.35	4.06	5.56	2.48	3.44	6.89	6.04	3.64	0.01	0.01	0.09	0.09	0.37	0.37	0.45	0.46	0.66	0.74	0.36	0.36	1.00	b	0.00	0.00	0.08	0.08	0.37	0.37	0.45	0.45	0.66	0.74	0.36	0.36	1.00	
Construction issues	4.19	4.77	4.11	3.55	3.68	3.62	3.33	6.35	4.43	4.23	0.67	0.60	0.66	0.59	0.43	0.36	0.41	0.35	0.38	0.37	0.42	0.35	0.45	b	1.00	0.79	0.96	0.75	0.25	0.04	0.21	0.00	0.11	0.07	0.21	0.00	0.32	
Sum	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	4.79	4.30	5.12	4.63	7.38	6.87	7.69	7.19	4.12	4.45	7.29	6.80	5.15		4.80	4.52	5.20	4.92	7.19	6.90	7.59	7.30	3.91	4.31	7.26	6.97	5.70	
Rank											9	12	8	10	2	5	1	4	13	11	3	6	7		10	11	8	9	4	6	1	2	13	12	3	5	7	

Criteria	1YYY	2YYR	3RY	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGY	12BGR	13BB
Direct private land impacts	4.89	0.00	5.72	0.84	9.39	4.50	10.23	5.34	1.78	2.62	11.84	6.95	4.23
Business impacts	0.05	2.55	0.00	2.50	4.00	6.50	3.95	6.44	11.29	11.24	3.91	6.41	11.20
Land operation impacts	8.95	6.56	9.55	7.16	9.55	7.16	10.14	7.76	6.60	1.19	7.76	5.37	0.00
Impacts on public infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Views	4.29	5.13	4.79	5.63	4.04	4.88	4.55	5.39	0.00	0.50	4.43	5.27	8.45
Impacts on recreation	2.25	5.07	2.25	5.07	0.00	2.82	0.00	2.82	5.64	5.64	0.00	2.82	5.64
Electromagnetic fields	1.57	0.00	2.09	0.52	8.37	6.80	8.89	7.32	3.14	3.66	5.23	3.66	0.00
Indigenous heritage	0.78	0.78	0.78	0.78	3.88	3.88	3.88	3.88	0.00	0.00	3.88	3.88	0.00
Cultural (non-Indigenous) heritage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flora and vegetation	0.39	3.34	0.45	3.39	4.53	7.48	4.59	7.53	0.00	0.05	4.60	7.54	0.22
Fauna	3.37	3.37	3.37	3.37	6.75	6.75	6.75	6.75	0.00	0.00	6.75	6.75	0.00
Hydrology	5.02	1.54	5.81	2.33	3.48	0.00	4.27	0.79	4.33	5.12	6.43	2.95	7.51
Project cost	0.00	0.00	0.29	0.29	1.28	1.28	1.57	1.57	2.28	2.57	1.25	1.25	3.47
Construction issues	4.19	3.30	4.03	3.14	1.05	0.16	0.89	0.00	0.46	0.30	1.90	0.01	1.34
Sum	35.75	31.65	39.13	35.03	56.31	52.21	59.69	55.59	29.52	32.90	56.95	52.85	42.06
Rank	9	12	8	10	3	6	1	4	13	11	2	5	7

Criteria	1YYY	2YYR	3RY	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGY	12BGR	13BB
Direct private land impacts	4.50	0.00	5.28	0.77	8.66	4.15	9.43	4.92	1.64	2.41	10.91	6.40	3.90
Business impacts	0.05	2.40	0.00	2.35	3.77	6.13	3.72	6.08	10.65	10.60	3.69	6.04	10.57
Land operation impacts	8.71	6.39	9.29	6.97	9.29	6.97	9.88	7.55	0.58	1.16	7.55	5.23	0.00
Impacts on public infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Views	3.95	4.73	4.42	5.19	3.72	4.50	4.19	4.97	0.00	0.47	4.08	4.85	7.79
Impacts on recreation	2.21	4.97	2.21	4.97	0.00	2.76	0.00	2.76	5.52	5.52	0.00	2.76	5.52
Electromagnetic fields	1.53	0.00	2.04	0.51	8.16	6.63	8.67	7.14	3.06	3.57	5.10	3.57	0.00
Indigenous heritage	0.85	0.85	0.85	0.85	4.24	4.24	4.24	4.24	0.00	0.00	4.24	4.24	0.00
Cultural (non-Indigenous) heritage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flora and vegetation	0.42	3.54	0.47	3.59	4.80	7.93	4.86	7.98	0.00	0.06	4.87	7.99	0.23
Fauna	3.72	3.72	3.72	3.72	7.43	7.43	7.43	7.43	0.00	0.00	7.43	7.43	0.00
Hydrology	4.79	1.47	5.55	2.23	3.32	0.00	4.08	0.76	4.14	4.89	6.14	2.82	7.17
Project cost	0.00	0.01	0.34	0.35	1.51	1.52	1.85	1.86	2.70	3.05	1.47	1.48	4.11
Construction issues	4.77	3.76	4.58	3.57	1.19	0.19	1.01	0.00	0.52	0.34	1.02	0.01	1.52
Sum	35.49	31.82	38.74	35.07	56.11	52.44	59.36	55.69	28.82	32.06	56.50	52.83	40.81
Rank	9	12	8	10	3	6	1	4	13	11	2	5	7

Criteria	1YYY	2YYR	3RY	4RYR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGY	12BGR	13BB
Direct private land impacts	4.85	0.00	5.68	0.83	9.32	4.47	10.15	5.30	1.77	2.60	11.74	6.89	4.19
Business impacts	0.05	2.56	0.00	2.51	4.02	6.52	3.96	6.47	11.34	11.28	3.92	6.43	11.25
Land operation impacts	9.20	6.74	9.81	7.36	9.81	7.36	10.42	7.97	0.61	1.23	7.97	5.52	0.00
Impacts on public infrastructure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Views	4.28	5.12	4.78	5.62	4.03	4.88	4.54	5.38	0.00	0.50	4.42	5.26	8.44
Impacts on recreation	2.26	5.09	2.26	5.09	0.00	2.83	0.00	2.83	5.66	5.66	0.00	2.83	5.66
Electromagnetic fields	1.57	0.00	2.09	0.52	8.36	6.79	8.88	7.31	3.13	3.66	5.22	3.66	0.00
Indigenous heritage	0.74	0.74	0.74	0.74	3.68	3.68	3.68	3.68	0.00	0.00	3.68	3.68	0.00
Cultural (non-Indigenous) heritage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flora and vegetation	0.39	3.32	0.44	3.37	4.51	7.44	4.56	7.49	0.00	0.05	4.57	7.50	0.22
Fauna	3.34	3.34	3.34	3.34	6.68	6.68	6.68	6.68	0.00	0.00	6.68	6.68	0.00
Hydrology	5.13	1.57	5.94	2.38									

Kojonup - Albany Transmission Line Corridor Selection
Summary of outcomes of multi-criteria analysis and ranking of options

Ranking of Options by Stakeholder Group

Stakeholder Group	Kojonup to Sector D													Sector D to Albany		
	1YYY	2YYR	3RYR	4YR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	Yellow	Red	Blue
Property owner	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
Property manager / tenant	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
Local business	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
Regional business	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
Industry group	10	12	8	9	4	6	1	3	13	11	2	5	7	2	1	3
Local environment / community group	9	11	8	10	3	6	1	4	13	12	2	5	7	2	1	3
Local Government	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
State Government agency	9	11	8	10	3	6	1	4	13	12	2	5	7	2	1	3
State or Federal politician	12	13	9	11	4	6	1	3	10	8	2	5	7	2	1	3
Average all	9	12	8	10	3	6	1	4	13	11	2	5	7	2	1	3
Unweighted	10	11	8	9	4	6	1	2	13	12	3	5	7	2	1	3

Relative Value of Options by Stakeholder Group

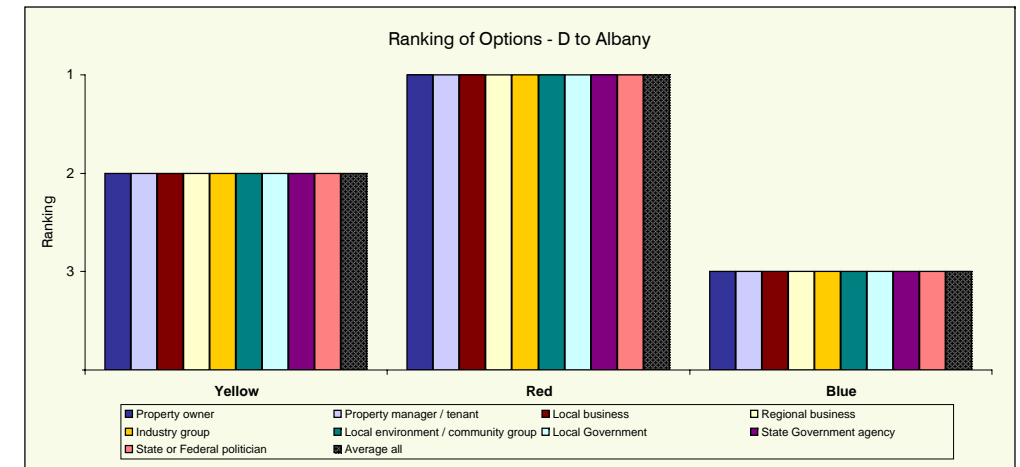
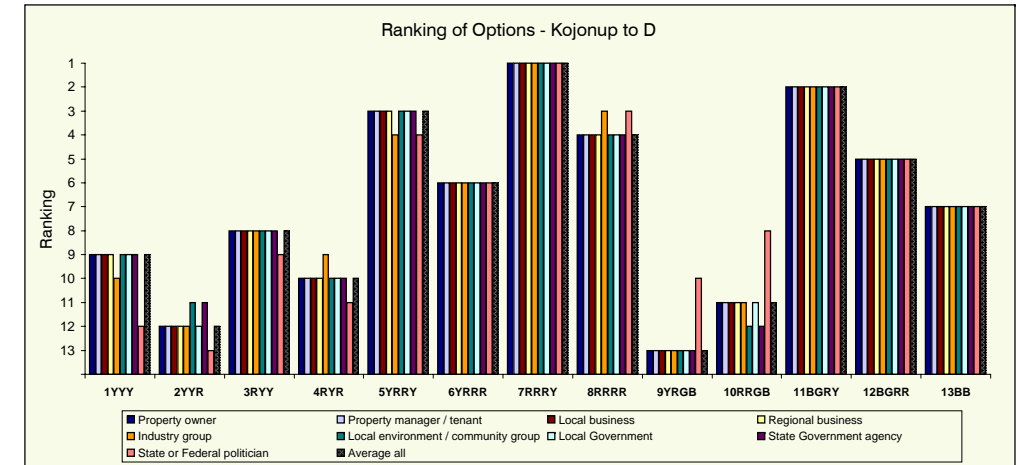
Stakeholder Group	Kojonup to Sector D													Sector D to Albany		
	1YYY	2YYR	3RYR	4YR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	Yellow	Red	Blue
Property owner	35.8	31.7	39.1	35.0	56.3	52.2	59.7	55.6	29.5	32.9	57.0	52.9	42.1	42.7	64.8	30.9
Property manager / tenant	35.5	31.8	38.7	35.1	56.1	52.4	59.4	55.7	28.8	32.1	56.5	52.8	40.8	43.1	62.8	30.6
Local business	35.9	31.7	39.3	35.1	56.2	52.0	59.6	55.4	29.6	33.0	56.9	52.7	42.1	42.7	64.9	30.8
Regional business	35.1	31.0	38.6	34.5	56.8	52.7	60.3	56.2	29.9	33.4	57.6	53.5	42.8	42.8	65.8	31.4
Industry group	34.6	31.3	38.0	34.7	54.4	51.1	57.7	54.4	29.6	33.0	56.0	52.7	43.7	41.7	63.5	30.3
Local environment / community group	36.3	32.6	39.7	36.0	56.4	52.6	59.7	56.0	28.9	32.3	57.5	53.8	42.2	43.2	64.8	29.1
Local Government	34.1	30.5	37.4	33.8	54.5	50.9	57.8	54.2	28.6	31.9	54.9	51.3	40.3	40.1	62.5	29.9
State Government agency	35.0	31.8	38.0	34.8	54.0	50.7	57.0	53.7	27.6	30.6	55.4	52.2	40.2	44.9	57.8	28.3
State or Federal politician	32.0	29.7	35.2	32.9	52.6	50.3	55.8	53.5	33.0	36.2	54.6	52.3	44.5	44.7	66.0	33.5
Average all	35.7	31.7	39.1	35.1	56.2	52.2	59.6	55.5	29.5	32.8	56.9	52.9	42.1	42.7	64.5	30.8
Unweighted	4.8	4.5	5.2	4.9	7.2	6.9	7.6	7.3	3.9	4.3	7.3	7.0	5.7	5.30	7.88	4.29

Percentage Difference from Rank 1 by Stakeholder Group

Stakeholder Group	Kojonup to Sector D													Sector D to Albany		
	1YYY	2YYR	3RYR	4YR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	Yellow	Red	Blue
Property owner	-40.1%	-47.0%	-34.4%	-41.3%	-5.7%	-12.5%	0.0%	-6.9%	-50.5%	-44.9%	-4.6%	-11.5%	-29.5%	-34.1%	0.0%	-52.3%
Property manager / tenant	-40.2%	-46.4%	-34.7%	-40.9%	-5.5%	-11.7%	0.0%	-6.2%	-51.5%	-46.0%	-4.8%	-11.0%	-31.2%	-31.3%	0.0%	-51.3%
Local business	-39.8%	-46.8%	-34.1%	-41.1%	-5.7%	-12.7%	0.0%	-7.0%	-50.4%	-44.7%	-4.6%	-11.6%	-29.4%	-34.1%	0.0%	-52.5%
Regional business	-41.7%	-48.5%	-36.0%	-42.8%	-5.8%	-12.6%	0.0%	-6.8%	-50.4%	-44.6%	-4.4%	-11.2%	-29.0%	-35.0%	0.0%	-52.3%
Industry group	-40.1%	-45.8%	-34.2%	-39.9%	-5.8%	-11.5%	0.0%	-5.7%	-48.7%	-42.8%	-3.1%	-8.8%	-24.2%	-34.3%	0.0%	-52.3%
Local environment / community group	-39.2%	-45.5%	-33.5%	-39.8%	-5.7%	-12.0%	0.0%	-6.3%	-51.6%	-46.0%	-3.7%	-10.0%	-29.4%	-33.3%	0.0%	-55.0%
Local Government	-41.0%	-47.1%	-35.3%	-41.4%	-5.7%	-11.9%	0.0%	-6.2%	-50.5%	-44.8%	-5.0%	-11.1%	-30.2%	-35.8%	0.0%	-52.2%
State Government agency	-38.5%	-44.3%	-33.3%	-39.0%	-5.3%	-11.0%	0.0%	-5.8%	-51.7%	-46.4%	-2.7%	-8.5%	-29.4%	-22.3%	0.0%	-51.1%
State or Federal politician	-42.7%	-46.8%	-37.0%	-41.1%	-5.8%	-9.9%	0.0%	-4.1%	-40.9%	-35.1%	-2.2%	-6.3%	-20.3%	-32.3%	0.0%	-49.3%
Average all	-40.0%	-46.7%	-34.3%	-41.1%	-5.7%	-12.4%	0.0%	-6.7%	-50.5%	-44.9%	-4.5%	-11.2%	-29.4%	-33.8%	0.0%	-52.3%

Ranking of Options by Criteria

Criteria	Kojonup to Sector D													Sector D to Albany		
	1YYY	2YYR	3RYR	4YR	5YRRY	6YRRR	7RRRY	8RRRR	9YRGB	10RRGB	11BGRY	12BGRR	13BB	Yellow	Red	Blue
Direct private land impacts	7	13	5	12	3	8	2	6	11	10	1	4	9	1	1	3
Business impacts	12	10	13	11	7	4	8	5	1	2	9	6	3	3	2	1
Land operation impacts	4	9	2	7	2	7	1	5	12	11	5	10	13	1	2	3
Impacts on public infrastructure	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Views	10	5	7	2	11	6	8	3	13	12	9	4	1	3	1	2
Impacts on recreation	9	4	9	4	11	6	11	6	1	1	11	6	1	3	1	1
Electromagnetic fields	10	12	9	11	2	4	1	3	8	6	5	6	12	3	1	2
Indigenous heritage	7	7	7	7	1	1	1	1	11	11	1	1	11	1	1	1
Cultural (non-Indigenous) heritage	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Flora and vegetation	10	8	9	7	6	3	5	2	13	12	4	1	11	1	2	3
Fauna	7	7	7	7	1	1	1	1	11	11	1	1	11	1	2	2
Hydrology	5	11	3	10	8	13	7	12	6	4	2	9	1	2	1	3
Project cost	13	12	11	10	7	6	5	4	3	2	9	8	1	3	2	1
Construction issues	1	3	2	4	6	11	8	13	9	10	7	12	5	1	3	2





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