

Savings Generated from use of Angle Dolly Stringing Blocks

Notes:

As a rule-of-thumb on jobs to date, the use of Angle Dollies has saved two crew hours per angle structure on a single circuit project. However this value can vary depending upon the project scope as shown below. The savings can be broken down as follows:

- 1) The use of the Angle Dolly stringing blocks eliminate the need to stop the pull to change out skookum blocks or X-100 blocks at each angle structure for each of the phase and fiber pulls and at the hard angle structures only for the static wire pulls.
Assume an average of 20 minute savings per block by eliminating the need to stop the pull, change out a block and restart the pull.
- 2) Additional savings are generated by not having to slow down or stop each wire pull because of issues caused at the angle structures such as when the wire jumps out and gets wedged between the dolly wheel and frame.
Assume an average of 30-minute savings for each phase, fiber and/or static wire on each pull.
- 3) This analysis does **not** take into account the substantial man-hour savings by not having to install angle arms or positioning a man and bucket truck at each angle to hold out the stringing block nor the value of improved safety and lower project risks.

Project Types		Iowa Single Ckt	Calf Single Ckt	Iowa Dbl Ckt	Calf Dbl Ckt
Note	Description	Ave Size, New Const	Ave Size, Recond	Large Reconductor	Large, New Const
	Number of Phases Installed	3	3	6	6
	Number of OHGW/OPGWs Installed	1	1	2	2
	Number of Phases Removed	0	3	6	0
	Number of OHGW/OPGWs Removed	0	1	2	0
	Location	Iowa	California	Iowa	California
	Man & Equipment Hourly Rate (\$/hr)	150	250	150	250
	Crew Size (# of men)	15	15	18	18
	Number of Wire Setups with Angle Structures	6	6	12	12
	Total Number of Angles on Project	15	15	45	45
	Number of Angle Dollies Used on Project	18	18	30	30
	Pull in Conductors:				
1	Hrs saved by not changing out blocks (per angle)	1.00	1.00	2.00	2.00
1	Savings Generated	\$ 33,750	\$ 56,250	\$ 243,000	\$ 405,000
2	Hours Saved Pulling each of the Phases	1.50	1.50	3.00	3.00
2	Savings Generated	\$ 20,250	\$ 33,750	\$ 97,200	\$ 162,000
	Pull in OPGW or OHGW:				
1	Hrs saved by not changing out blocks (per angle)	0.33	0.33	0.67	0.67
1	Savings Generated	\$ 11,250	\$ 18,750	\$ 81,000	\$ 135,000
2	Hours saved pulling each of the OPGW/OHGW's	0.50	0.50	1.00	1.00
2	Savings Generated	\$ 6,750	\$ 11,250	\$ 32,400	\$ 54,000
	(Reconductor Projects only):				
2	Less Time to Pull Out Old Phases (hrs)	0.00	1.50	3.00	0.00
2	Savings Generated	\$ -	\$ 33,750	\$ 97,200	\$ -
2	Less Time to Pull Out Old Shieldwire (hrs)	0.00	0.50	1.00	0.00
2	Savings Generated	\$ -	\$ 11,250	\$ 32,400	\$ -
	Total Savings Generated	\$ 72,000	\$ 165,000	\$ 583,200	\$ 756,000
	Total Savings per Angle Dolly Used	\$ 4,000	\$ 9,167	\$ 19,440	\$ 25,200
	Crew hours saved total	32.00	44.00	216.00	168.00
	Crew hours saved by note 1	20.00	20.00	120.00	120.00
	Crew hours saved by note 2	12.00	24.00	96.00	48.00