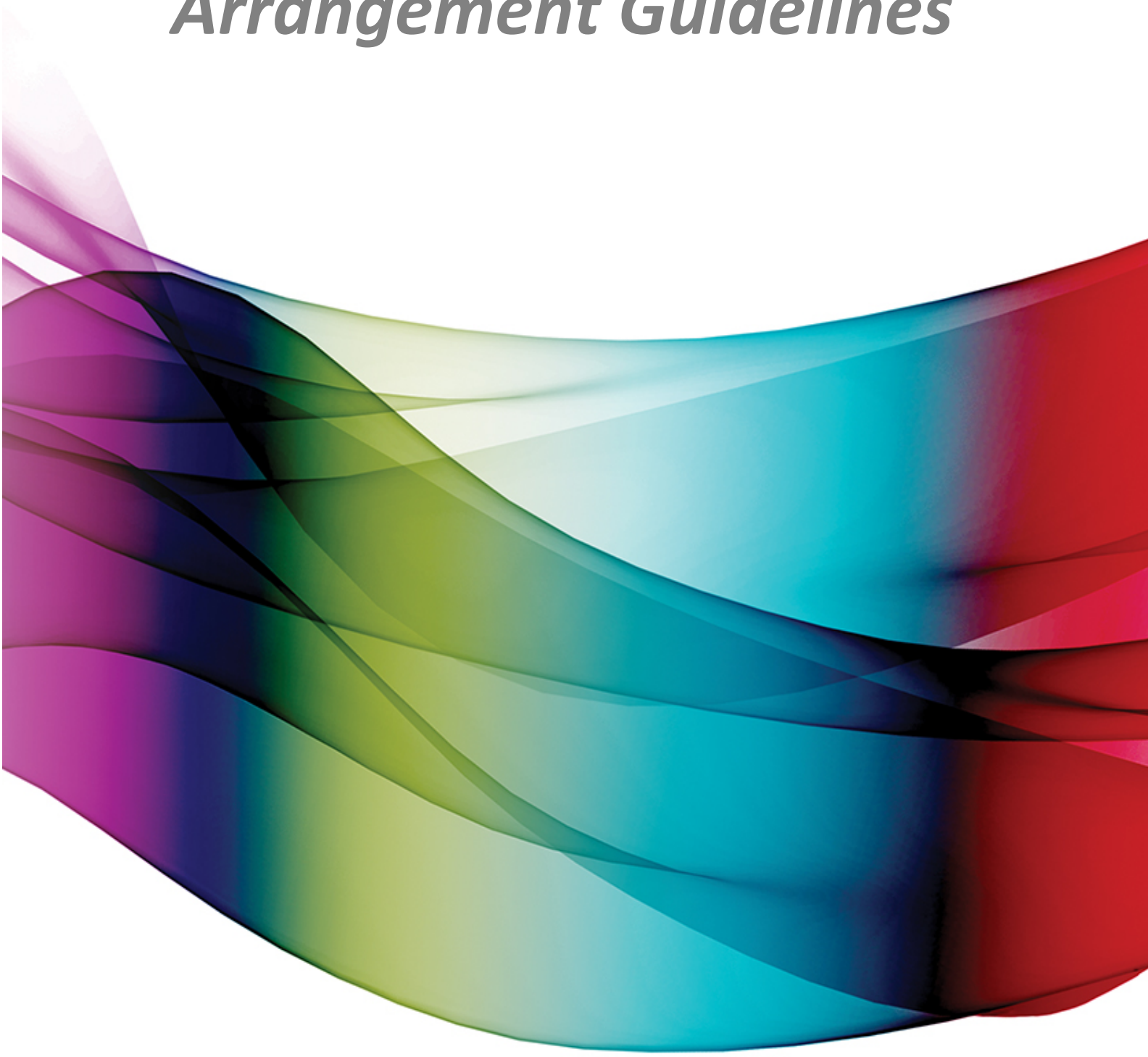
TasNetworks
Delivering your power

Irrigation Concessional Arrangement Guidelines



The aim of this Guideline is to provide additional detail and context when interpreting the Distribution Connection Pricing Policy when managing irrigation connections. This Guideline should assist in ensuring our practices align with the Tasmanian Government's policy on irrigation subsidies.

Who is an Irrigator customer?

A customer in respect of an installation for which all or a significant part (>90%) of the anticipated load is required for the purposes of pumping water:

- to irrigate crops or pasture; or
- that is subsequently used as part of an irrigation scheme to irrigate crops or pasture.

Irrigators are treated in a similar manner to all other customers requiring load connections, but, in line with State concessional arrangements where they receive a range of subsidies, TasNetworks has "allowances" which should be netted off their customer capital contribution for new connections.

The allowances for both small and large new irrigator connections are not applicable to modifications to existing irrigator connections except for the transformer allowance.

New irrigation connections

Irrigation projects with demand below the augmentation threshold (equivalent of a basic or standard customer project) are not required to contribute to augmentation services.

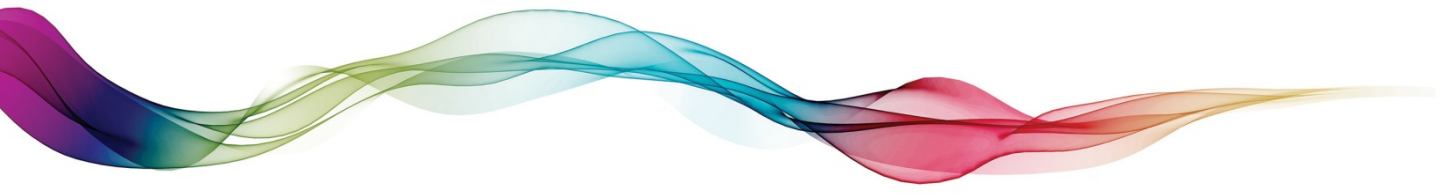
The cost associated with the provision of required transformer capacity necessary to meet the pumping loads of irrigation customers and related irrigator equipment is generally the largest component of extension services charges.

An irrigator requesting a connection service that requires extension services (other than transformers) should pay the direct costs associated with the provision of those assets, less any incremental revenue rebate.

Irrigation projects below the augmentation threshold are exempt from any augmentation charges.

Irrigation connection modification/alteration

A large irrigator requesting a modification to an existing connection is to pay the direct costs associated with any modification of connection assets required to accommodate that request and the costs associated with any augmentation required to accommodate that request.



Sometimes it will be necessary to alter the physical configuration of the existing distribution network to allow the construction of a network extension or complete a connection alteration. If a network alteration is required to allow connection of a irrigation customer project, the costs associated with this physical reconfiguration of the distribution network should be borne by the irrigator.

The costs include all costs associated with any work on the existing distribution network (other than network augmentation) necessary to allow a network extension or connection alteration for a large irrigator may include:

- any costs associated with extra assets to reinforce the mechanical strength of the distribution network to accommodate the connection, such as tee-off stays, tee-off stay-poles, tee-off cross-arms and tee-off insulators; less
- a cost equal to the depreciated value of any existing recoverable assets that need to be replaced.

Allowances

Connection Asset allowance

This allowance is provided to irrigation connections where the application for low voltage supply require TasNetworks to install an service. The allowance varies depending on the number of phases for an overhead service and the terminating enclosure for an underground service. The allowance includes:

- Service conductor or cable;
- Service fuse equipment;
- Service terminating equipment;
- Service enclosure equipment e.g. turret or cabinet

Irrigation customers should provide a customer capital contribution towards the cost of design

Network extension allowance

This allowance is up to $10,000. It is based on the estimated cost of a 2-span extension along a public road. It includes variables such as vegetation clearing, live line work, traffic management, stays any easements etc. The $10,000 is the maximum allowance. If the costs of the network extension are less than $10,000 then the allowance equals those costs. Any ‘underspend’ cannot be used to offset costs in other areas.

Transformer allowance

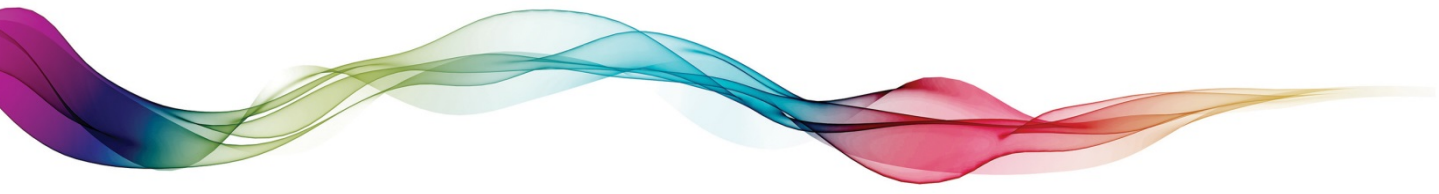
TasNetworks will size transformer assets to meet the expected load of the irrigation installation.

- **Additional transformers**
  If an irrigation installation requires more than one transformer, the customer is required to pay for each additional transformer, except for:

Centre pivot installations

Centre pivot installations that require a separate transformer for the centre pivot are not required to provide a customer capital contribution towards the cost of that transformer.
Centre pivot installations will therefore receive a second transformer allowance for the provision of that transformer for the centre pivot only. *This provision will only apply to large irrigation installation connections.*

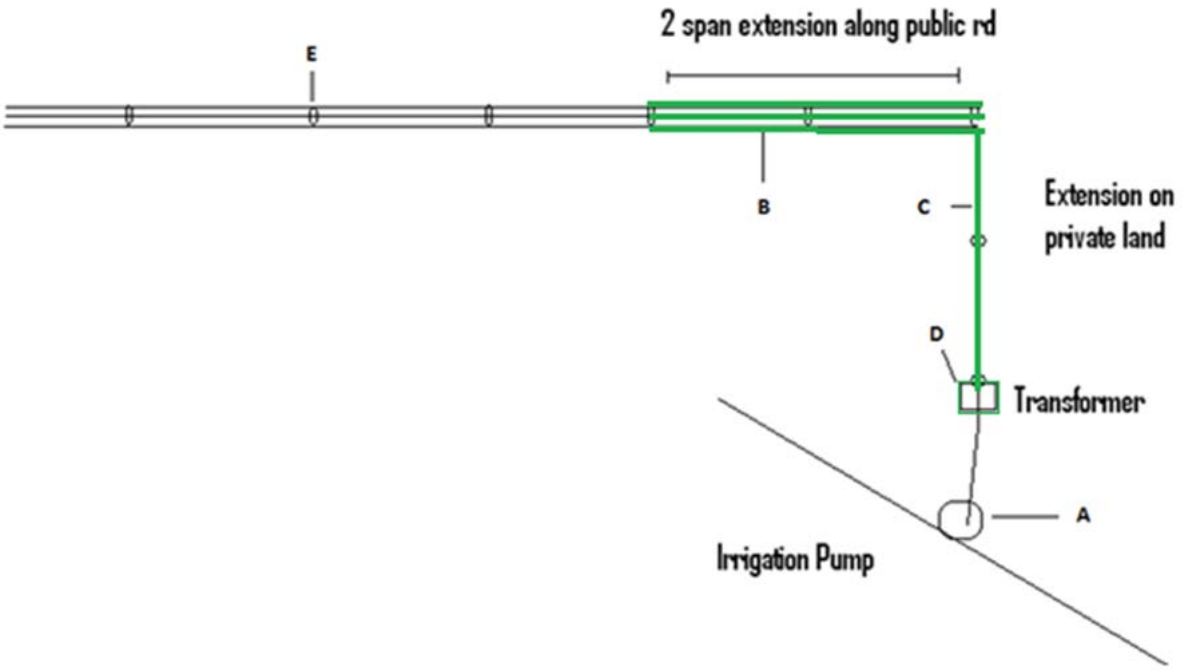
Irrigation connections are not required to provide a customer capital contribution towards the cost of a single dedicated transformer for an irrigation installation. *This allowance is only available if it is impractical to supply the pump from an existing transformer.*



Appendix

Diagram Example 1:

150 kVA connection, no augmentation costs, includes extension on public road and private land + transformer



Example: 1 – 150 kVA connection, no augmentation costs, includes extension on public road and private land + transformer

Complex Irrigation Project			
Item	**Component**	**Cost**	**Customer Charge**
A	Connection service	$750 (single span + fuses)	$0
	Extensions		
B	• Extensions to the network Public Road (Excl Tx)	2 spans ($9,000)	$0 (equivalent 2 free spans)
C	• Extensions to the network across Private Property (Excl Tx)	2 spans ($9,500) (*But only where above network extension allowance)	$9,500
D	• Transformer extension services	$18,400	$0
E	Augmentation services Including transformation	$0 No augmentation works	$0
	Revenue Rebate	Revenue Rebate = offset on item **B**, 2 spans along public road $9,500	Used for item **B**
	Totals	**Total project cost $37,650**	**Customer charge $9,500**

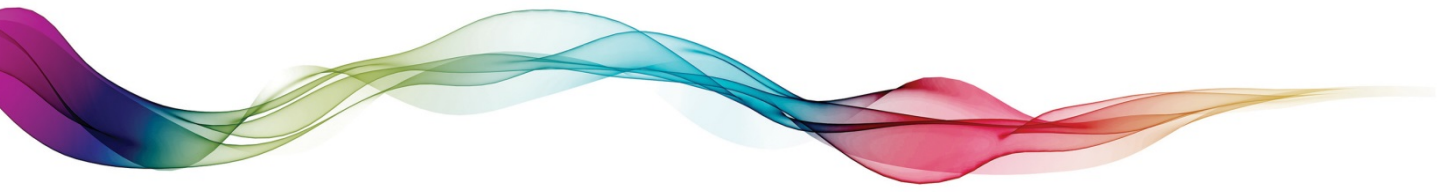
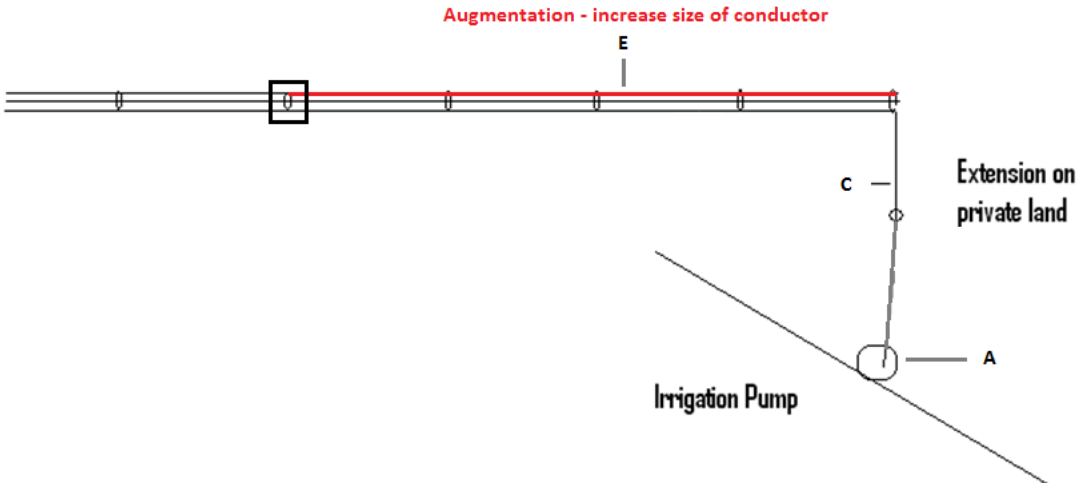


Diagram Example 2:

120 kVA connection, augmentation costs, includes extension on private land only



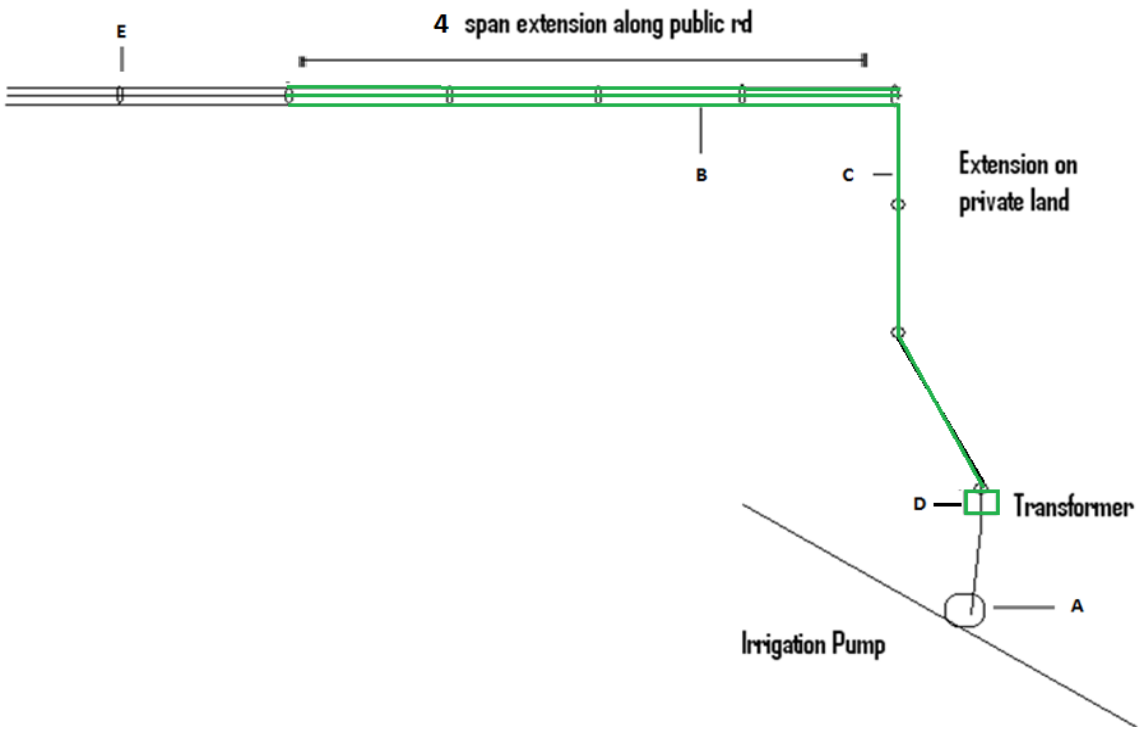
Example: 2 – 120kVA connection, augmentation costs, includes extension on private land only

Complex Irrigation Project

Item	Component	Cost	Customer Charge
A	Connection service	$750 (single span + fuses)	$0
	Extensions		
B	• Extensions to the network Public Road (Excl Tx)	N/A	$0 (equivalent 2 free spans)
C	• Extensions to the network across Private Property (Excl Tx)	1 span ($5,000) (*But only where above network extension allowance)	$5,000
D	• Transformer extension services	N/A	$0
E	Augmentation services Including transformation	Upgraded size of conductor (est $12,000)	= (demand estimate – threshold allowance) x unit rate =(120-70) * $298 = $14,900
	Revenue Rebate	Revenue Rebate noting no public road extension = the greater of 1/3 of the public road extension offset ($10,000), or individually calculated rebate. = Individually calc assessment assume $7,000	$7,000
	Totals	**Total project cost $17,750**	**Customer charge $12,900**

Diagram Example 3:

200 kVA connection, no augmentation costs, includes extension on public road and private land + 200 kVA transformer



Example: 3 – 200kVA connection, no augmentation costs, includes extension on public road and private land + 200 kVA transformer

Complex Irrigation Project

Item	Component	Cost	Customer Charge
A	Connection service	$750 (single span + fuses)	$0
	Extensions		
B	• Extensions to the network Public Road (Excl Tx)	4 spans $22,000	$11,000 (equivalent 2 free spans)
C	• Extensions to the network across Private Property (Excl Tx)	3 spans = $18,000	$18,000
D	• Transformer extension services	$22,400	$0
E	Augmentation services	N/A	$0
	Revenue Rebate	Revenue Rebate = = the greater of the public road extension offset (est $10,000), or individually calculated rebate. $11,000 offset on item **B**, 2 spans along public road	Used for item **B**
	Totals	**Total project cost $63,150**	**Customer charge $29,000**

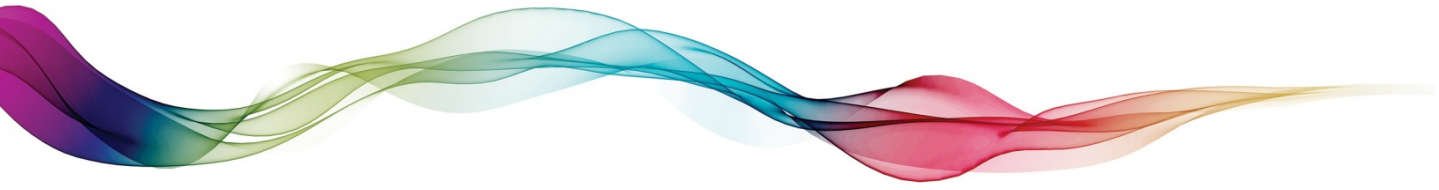
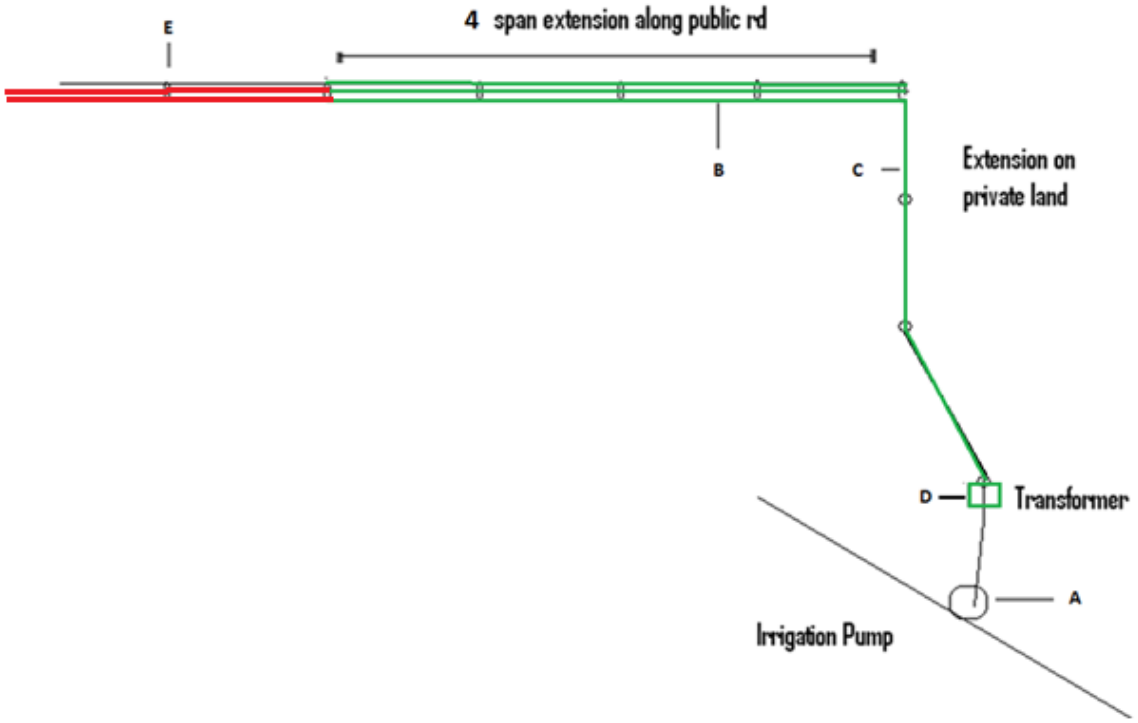


Diagram Example 4:

60 kVA connection requires upgrade SWER line to 3 phase - augmentation costs, includes extension on public road and private land + 100 kVA transformer



Example: 4 – 60kVA connection requires upgrade SWER line to 3 phase – augmentation costs, includes extension on public road and private land + 100KVA transformer			
Complex Irrigation Connection			
Item	**Component**	**Cost**	**Customer Charge**
A	Connection service	$750 (single span + fuses)	$0
	Extensions		
B	• Extensions to the network Public Road (Excl Tx)	4 spans $22,000	$11,000 (equivalent 2 free spans)
C	• Extensions to the network across Private Property (Excl Tx)	3 spans = $18,000	$18,000
D	• Transformer extension services	$12,400	$0
E	Augmentation services While connection only 60KVA – threshold is 25 kVA for SWER lines	$20,000	$0 = (demand estimate – threshold allowance) x unit rate =(60-25) * $298 = $10,430
	Revenue Rebate	Revenue Rebate = = the greater of the public road extension offset (est $10,000), or individually calculated rebate. $11,000 offset on item **B**, 2 spans along public road	Used for item **B**
	Totals	**Total project cost $73,150**	**Customer charge $28,430**

Note: Because the connection is to an existing SWER line the 25kVA threshold applies.

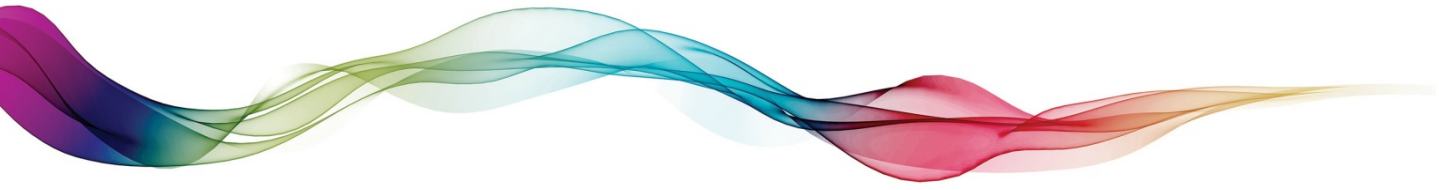
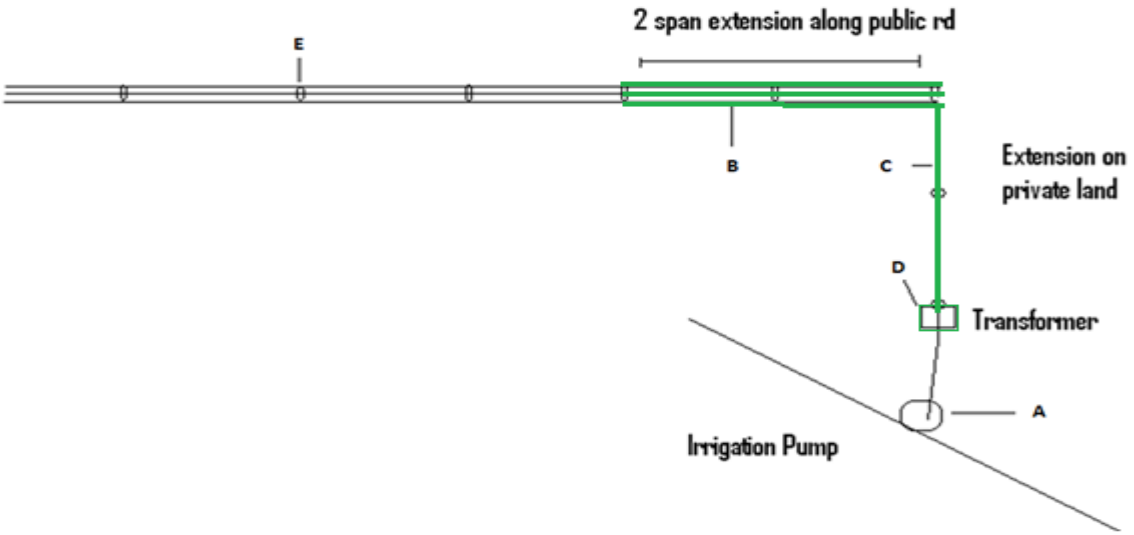


Diagram Example 5:

60 kVA connection – no augmentation costs, includes extension on public road and private land + 100 kVA transformer



Example: 5 – 60kVA connection, no augmentation costs, includes extension on public road and private land + 100KVA transformer			
Standard Irrigation Project			
Item	**Component**	**Cost**	**Customer Charge**
A	Connection service	$750 (single span + fuses)	$0
	Extensions		
B	• Extensions to the network Public Road (Excl Tx)	2 spans $9,000	$0 (equivalent 2 free spans)
C	• Extensions to the network across Private Property (Excl Tx)	2 spans = $11,000	$11,000
D	• Transformer extension services	$12,400	$0
E	Augmentation services	N/A	$0
	Revenue Rebate	Revenue Rebate = = the greater of the public road extension offset (est $10,000), or individually calculated rebate. $11,000 offset on item **B**, 2 spans along public road	Used for item **B**
	Totals	**Total project cost $33,150**	**Customer charge $11,000**