



Qorshaha Horumarinta Aagga Tamarta Korontada Somaliland

15 May, 2019

Qorshaha korontada | Somaliland

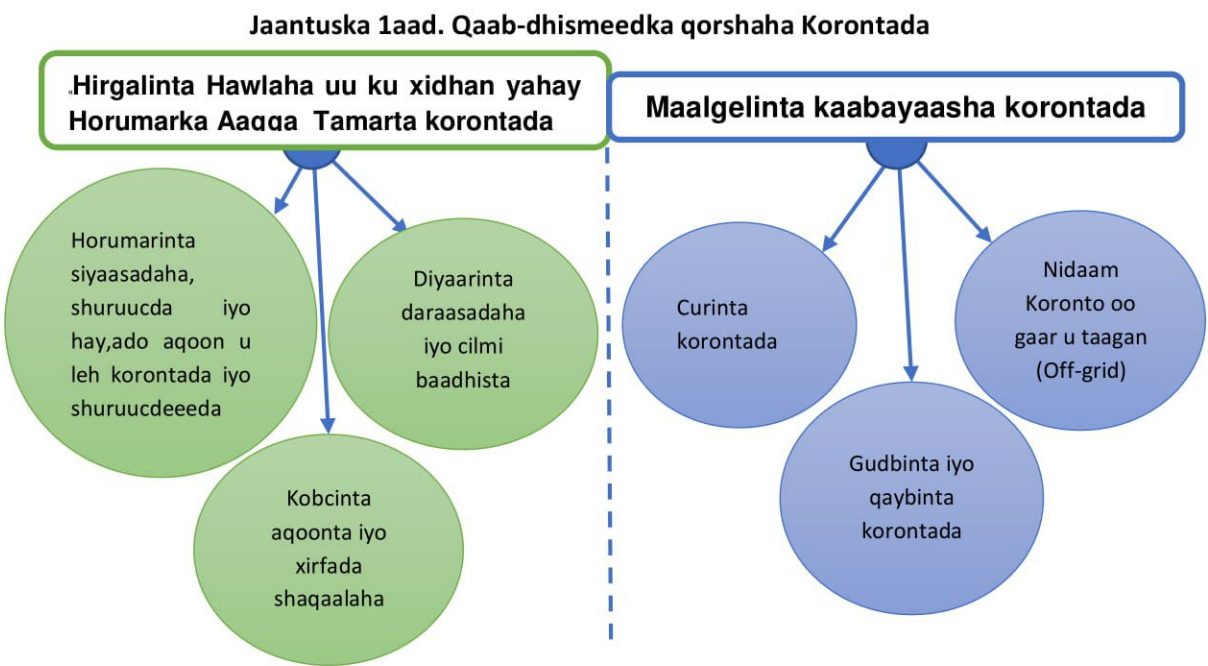
**QORSHAHA HORUMARINTA AAGGA TAMARTA
KORONTADA EE SOMALILAND**

1. Warbixin kooban – Qorshaha Korontada

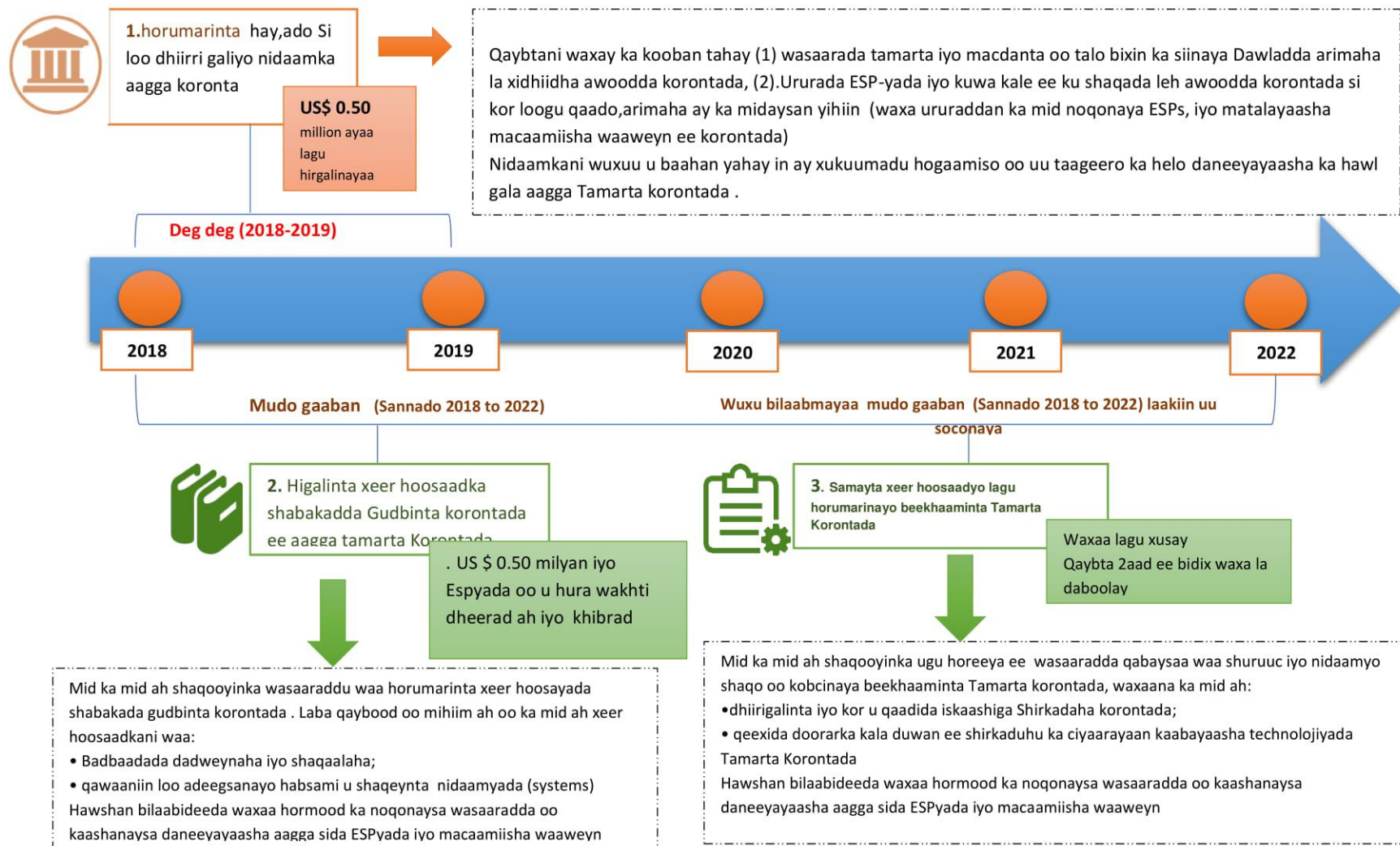
Qaybtani waxay soo koobaysaa oo soo bandhigaysaa qorshaha horumarinta aagga tamarta korontada ee Somaliland.

Waxaanay ka kooban tahay labba qaybood

- (i) Hirgalinta hawlaha uu ku xidhan yahay horumarka aagga tamarta korontadu
- (ii) Maalgelinta kaabayaasha korontada



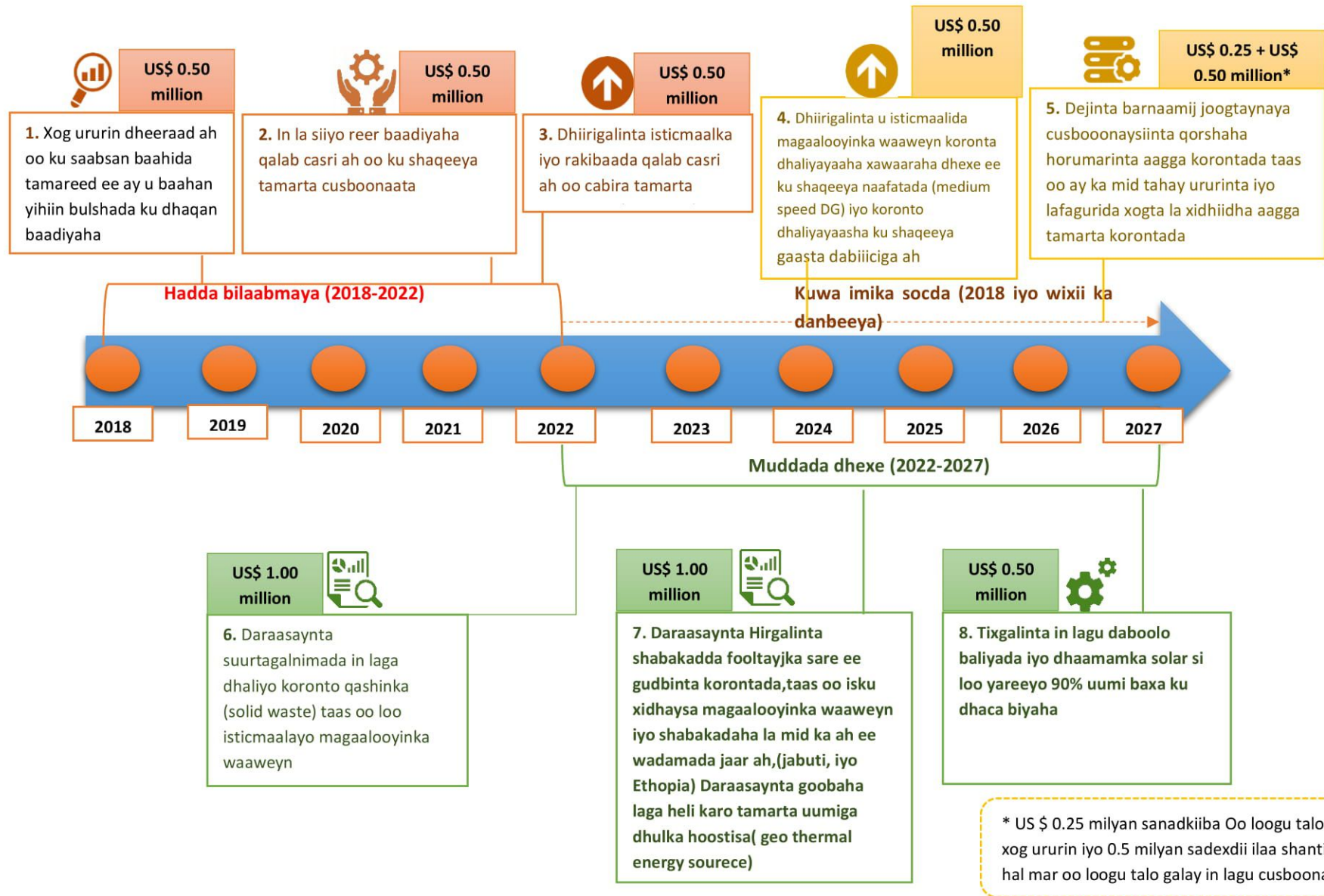
1.1 Hirgalinta hawlaha uu ku xidhan yahay horumarka aagga tamarta korontadu guud ahaan.



Shaxrda 2. Hirgalinta hawlaha uu ku xidhan yahay horumarka aagga tamarta korontadu guud ahaan

#	Faahfaahin	Miisaniyada
1	<p>Qaybtani waxay ka kooban tahay (1) wasaarada tamarta iyo macdanta oo talo bixin ka siinaya Dawladda arimaha la xidhiidha awoodda korontada, (2).Ururada ESP-yada iyo kuwa kale ee ku shaqada leh awoodda korontada si kor loogu qaado,arimaha ay ka midaysan yihiin (waxa ururaddan ka mid noqonaya ESPs, iyo matalayaasha macaamiisha waaweyn ee korontada)</p> <p>Nidaamkani wuxuu u baahan yahay in ay Dawladdu hogaamiso oo ay taageero ka helaya islamarkaana kaashanaysa daneeyayaasha ka hawl gala aagga Tamarta korontada .</p>	US\$ 0.50 million ayaa lagu hirgalinayaa
2	<p>Mid ka mid ah shaqooyinka wasaaraddu waa horumarinta xeer hoosayada shabakada gudbinta korontada . Laba qaybood oo mihiim ah oo ka mid ah xeer hoosaadkani waa:</p> <ul style="list-style-type: none"> • Badbaadada dadweynaha iyo shaqaalaha; • qawaaniin loo adeegsanayo habsami u shaqeynta nidaamyada (systems) <p>Hawshan bilaabideeda waxaa hormood ka noqonaysa wasaaradda oo kaashanaysa daneeyayaasha aagga sida ESPyada iyo macaamiisha waaweyn.</p>	US \$ 0.50 milyan iyo Espyada oo u hura wakhti dheerad ah iyo khibrad
3	<p>Mid ka mid ah shaqooyinka ugu horeeya ee wasaaradda qabaysaa waa shuruuc iyo nidaamyo shaqo oo kobcinaya beekhaaminta Tamarta korontada, waxaana ka mid ah:</p> <ul style="list-style-type: none"> •dhiirigalinta iyo kor u qaadida iskaashiga Shirkadaha korontada; • qeexida doorarka kala duwan ee shirkaduhu ka ciyaarayaan kaabayaasha teknolojiyada Tamarta Korontada <p>Hawshan bilaabideeda waxaa hormood ka noqonaysa wasaaradda oo kaashanaysa daneeyayaasha aagga sida ESPyada iyo macaamiisha waaweyn</p>	Xaga sare ku xusan

Waxqabyada khuseeya Dawlada



Waxqabyada khuseeya Dawlada

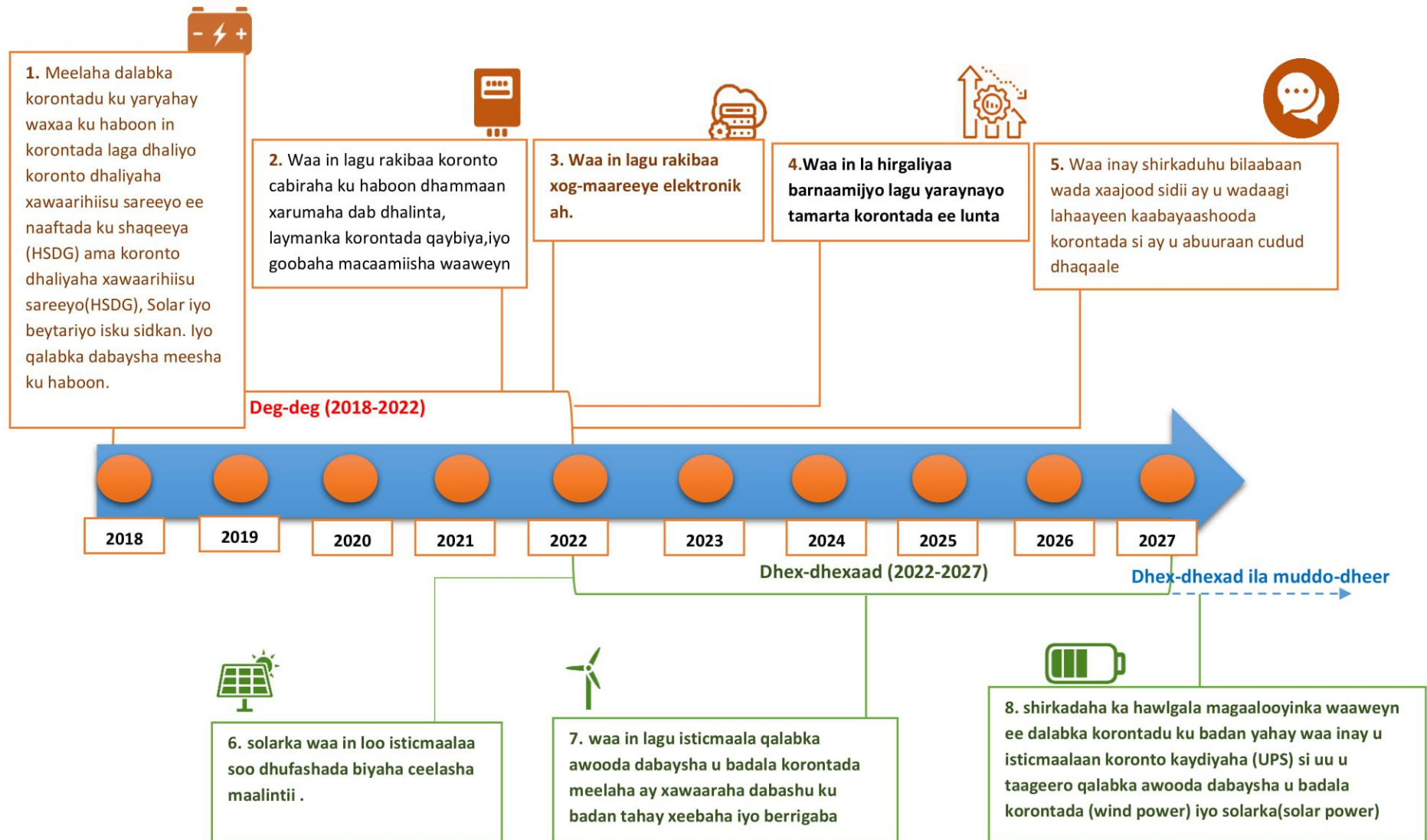
Shaxda 1. Waxqabadyada khuseeya Dawlada

#	Faahfaahin	Miisaniyada
1	Barnaamijka wuxuu ka taageerayaa xoolo-dhaqatada baahidoododa tamareed ee u suurto galinaysa hirgalinta dhaqdhaqaaqyadooda ganacsiga ee la xidhiidha hab nololeedkooda reer guuranimu,	US\$0.50 million
2	Barnaamijka wuxuu ka kooban yahay rakibaada qalabka tamarta qoraxda (solar) ka dhaliya iyo beetariyadiisa kuwaas oo ku filan qoys kali ah, amma dhawr	US\$ 0.50 million oo loogu talagalay dhiirigalin (promotion) iibka alaabtan waxa loo daynayaa aaga ganacsiga gaar loo leeyahay (private sector)
3	Tani waxay u suurto galinaysaa shirkadaha korontada inay ogaadaan rarka saaran layn kasta oo koronto, isla markaana aya isbarbar dhigaan rarka korontada iyo tamarta laga iibiyey macaamiisha si loo ogaado xadiga tamarta korontada ee lunta	US\$ 0.50 million dhiirigalin oo kaliya.
4	Dhiirigalinta u isticmaalida magaalooyinka waaweyn koronta dhaliyayaaha xawaaraha dhexe ee ku shaqeeya naaftada (medium speed DG) iyo koronto dhaliyayaasha ku shaqeeya gaasta dabiiciga ah. Taas oo keenaysa inay shirkadaha korontada u dhigmo kharash badan, oo uu uga soo hadho maalgalinta ay ku sameeyaan shirkadahooda iyo kharashka sanadlaha ah ee ay galaan. Qorshayaal dhiirigaliineed ayaa loo baahanayaa si logu qalqaaliyo shirkadaha inay u guuraan isticmaalka qalabka kor ku xusan (MSD generators and gas turbines).	US\$ 0.50 million.

5	<p>Qorshaha horumarinta aagga korontada kasta waxa kaliya ee isticmaalkiisu uu sax yahay inta malaha (assumptions) loo cuskaday samayntiisu uu saxsan yahay sidaa darteed Laba qodob ayaa mihiim ah.</p> <ul style="list-style-type: none"> In la fahmo isla markaana la darso dhaqaalaha somaliland guud ahaa iyo is bedelada waaweyn ee ka dhexdhacaya. In la dhiso saldhig xogta lagu kaydiyo(data base) oo dhamaystiran isla markaana la isku halayn karo <p>Dawladdu, iyada oo isticmalaysa miisaniyadeedaa, waa in ay cusbooneysiisaa qorshaha horumarinta aagga korontada sanad walba taas oo ka bilaabmayso 3da ilaa 5ta sanno ee ugu horeeya .</p> <p>Waxay dawladdu kaashan kartaa la taliyayaal caalami ah si ay dib ugu sameeyaan guud ahaa qorshaha horumarinta aagga korontada una soo saaraan mid cusub iyaga oo ka eegaya dhinacyo cusub.</p>	<p>US\$ 0.25 million sanad kasta oo lagu talagalay xog-ururin iyo \$ 0.50 milyan oo saddex illaa shan sano ee kastaba lagu kharashgareeyo cusboonaysiinta qorshaha horumarinta aagga tamarta korontada.</p>
6	<p>Hawshan waxaa lagu samayn doonaa nidaamka u badalida ashyaada dabiiciga ah ee qashinka ku jira, ee loo badalayo tamar iyo nidaamka burburinta qashinka iyada oo la isticmaalayo heerkul aad u sareeya, hawlahaan waa in laga fuliyaa qashin qubyada waaweyn ee magaalooyinka gaar ahaan, arintani waxay si toos ah u khusaysaa magaalada Hargeisa.</p> <p>Xajmiga, goobta, nooca warshada korontada ka dhalinaysa qashinka, habka loo ururinayo qashinka, qiyaasta kharashka ay kalifayso hawshani, iyo saamaynta dhaqaale waa in si wanaagsan loo darsaa.</p>	<p>US \$ 1.00 milyan oo loogu talagalay in lagu fulliyo daraasaddaha oo ay ka mid tahay in la xisaabiyo maalgalinta ay u baahan tahay hirgalinta warshadaasi.</p>
7	<p>Arintani somaliland waxay u suurto galinaysaa inay ka faaidaysato(1)abuurida cudud dhaqaale oo midaysan si loo dhiso warshado koronto oo waaweyn taas ay wadaagi karaan shirkaduhu(2)dhisida warshado koronto dhalineed oo waaweyn oo ku shaqaynaya awooda biyaha (large hydro plants) Ogolaanshaha xarumaha waaweyn ee korontada, (3) soo dajinta shidaalo aan imika laga isticmaalin wadanka sida gaasta dabiiciga ah, oo laga soo dajiyo wadamada khaliijka iyo bariga dhexe</p>	<p>US \$ 1.00 milyan oo loogu talagalay daraasado iyo kobcinta iskaashiga wadamada jaarka.</p>

	4) koddinta iyo siinta adeeg la isku halayn karo xarumaha waaweyn ee korontada lagu isticmaalo	
8	<p>Tani waxay suurtagalin doonta in loo curiyo koronto macaamiisha ka ag dhaw, isla markaana waxay u u jaxaasi doontaa biyaha ku jira goobaha kala duwan ee biyaha lagu kaydiyo, kuwaas oo loo isticmaalo arimaha la xidhiidha waraabka beeraha iyo magaaloyinka</p> <p>Marka mashaariicdan la hirgalinaayo waa in la tixgaliyaa arimaha deegaanka iyo fayd dhawrka bulshada</p> <p>Rakibaada qalabkani wuxuu faaido u yahay dhamaan aaggaga biyaha iyo tamarta korontada</p>	<p>US \$ 0.50 milyan Looogu talagalay daraasado lagu ogaanayo goobaha ku haboon in solar lagu daboolo kaydka biyaha sida baliyada iyo dhaamamka islamarkaana lagu ogaado in dhaqaale ahaan hawsha noocan ahi ay istaahil tahay in la hirgaliyo, mashaariic tijaabo ahna la raaciyo.</p>

Hawlaha ku haboon in la hirgaliyo si loo horumariyo shirkadaha korontada (ESP-yada)



Jaantuska 2aad. Hawlaha ku haboon in la hirgaliyo si loo horumariyo shirkadaha korontada (ESP-yada)

#	Faah-faahin	miisaniyad
1	Hawshani waxay u baahatahay nidaamyo iskood u shaqaynaya (automation) iskoodna isku raaci kara (synchronisation). Tani waxay lagama maarmaan ka dhigaysaa in wadanka gudihiisa laga bilaabo goobo tababaro, kuwaas oo ku saabsan farsamada koronto dhaliyayaasha, sidii iskood ay u wada shaqayn lahaayeen (automation) isuna raaci lahaayeen(synchronisation)	Qaybtan kharashkeedii waxa lagu daray Qaybta ka hadlaysa maalgalinta kaabayaasha korontada.
2	Arintani waxay u suurta galinaysaa shirkadaha korontada inay ogaadaan isla markaana la socdaan rarka koronto ee saaran laymankooda isla markaana ay isbarbar dhig ku samayn karaan rarkooda koronto iyo tamarta koronto ee ay ka iibiyeen macaamiisha si ay u ogaadaan xadiga tamarta koronto ee ka lunta	Qaybtan kharashkeedii waxa la raaciyeey qaybta kharashaadka shaqo ee shirkadaha (ESP normal operating expenses)
3	<p>Tani waxay u suurta galinayaa shirkadaha inay si joogta ah uga waryahaan</p> <ul style="list-style-type: none"> In ay si wanaagsan u xafidaan macluumaadka la xidhiidha hantidooda sida ,Goobaha, kharashaadka iyo qiimayaasha,sanadihii la rakibay iyo xiliyada badalaada. Curinta, iibka iyo tamarta koronta ee lunta <p>Hadaba nidaamyada noocan ahi waxay fududaynayaan dib u cusboonaysiinta faylasha iyo in si fudud dib loogu heli karo faylasha luma.</p>	US\$ 50 to 100 oo dolar shirkadiiba arintani waliba waxay ku xidhan tahay baaxada shirkada iyo qaabka heshiiyada ganacsi ee ay shirkaduhu la galayaan adeeg bixiyayaasha caalamiga ah ee iibinaya softwererdan
4	<p>Barnaamijyada waa in loo kala qaybiyaa saddex qaybood:</p> <ul style="list-style-type: none"> Barnaamij cabiraad ah sida kor ku xusan si loo ogaado xadiga tamarta korontada ee lunta iyo 	Waxay ku xidhan tahay baaxada shirkada iyo sida

#	Faah-faahin	miisaniyad
	<p>halka ay ku luto</p> <ul style="list-style-type: none"> Qorshe habaysan, oo lagu maalgalinayo sidii dib loogu habayn lahaa laymanka koronda taas oo la abaarayo yaraynta tamarta korontada ee lunta Qorshe habaysan oo isugu jira dabagal, wacyigalin,iyo anshax marin lagu abaarayo yaraynta tamarta koronta ee la xado. 	ay uga go,antahay in la yareeyo tamarta korontada ee lunta.
5	<p>Arintani waxay khusaysaa shirkadaha korontada oo dhan gaar ahaan magaalooyinka ama goobaha kaliya ee ay dhawr shirkadood ka wada hawl galaan. Cudud dhaqaale (Economies of scale) waxa loo abuuri karaa sidan hoos ku xusan.</p> <ul style="list-style-type: none"> In la wadaago dabdhalayayaasha aadka u waaweyn ee aad uga roon inay shirkad kaliyi isticmaasho In la wada yeesho laymanka qaybinta awooda koronada. In ay shirkaduhu isku darsadaan goobaha adeeg bixinta si ay u wanaajiyaan beekhaaminta shaqada <p>Wadaagida arimaha aynu kor ku soo xusnay waxa fududayn kara marka taageero badan la siiyo wasaaradda taas oo suurto galinaysa inay diyaariso dhammaan shuruucda ku haboon ee suurta galinaya wadaaga arimaha kor ku xusan.</p>	1.0 million US dollar
6	<p>Tani waxay meesha ka saaraysaa kharashkii ku bixi jiray naaftada, koronto dhaliyayaasha xawaarahoodu sareeyana waxaa loo isticmaali karaa koronto dhalin meelo kale oo dalab koronto ka jiro.</p>	Waa qayb ka mid ah fidinta adeega koronto bixineed ee shirkadaha si ay u daboolaan korontada goobahooda kale looga baahan yahay.
7	<p>Si looga dhaliyo awooda dabaysha koronto, looma baahna oo kaliya in la dhiso oo la hirgaliyo koronto dhaliyayaasha awooda dabaysha u badala koronto ee waxa kale oo loo baahan yahay in la</p>	Waxa la raaciyey qaybta maalgalinta kaabayasha

#	Faah-faahin	miisaniyad
	<p>dajiyo barnaamij habaysan oo abaaraya tababarka iyo kobcinta xirfada farsamada iyo shaqo abuurka ee bulshada.</p> <p>Waxa kale oo barnaamijka ka mid ah in la kobciyo korna loo qaado aqoonta iyo kartida muwaadiniinta arimahan ku shaqada leh, iyo in xidhiidh farsamo lala sameeyo shirkadaha dhisa koronto dhaliyayaasha awooda dabaysha u badala korontada, si loo xaqiijiyo dhamaystirka warshado si sax ah u shaqeynaya, waxa kale oo la socda in barnaamijkan maaraynta iyo qorshaha dayactirka ee warshadaha dabaysha.</p>	korontada
8	<p>Arintani waxay kor u qaadaysaa in lagu soo kordhiyo koronto laga dhaliyey tamarta cusboonaata mareegaha korontada waxaanay yaraynaysaa kharashka ku baxa naaftada</p>	Waxa la raaciyey qaybta maalgalinta kaabayasha korontada



A. Hirgalinta barnaamij casri ah oo ku saabsan iskood uga shaqaysiinta (automation) iyo israacinta (synchronization) dhamaan koronto dhaliyayaasha ee ay hada haystaan shirkada korontadu iyo kuwa mustaqbalka u qorshaysan inay iibsadaan

- Ilaa US450 koronto dhaliyahiiba
- Xadiga koronto dhaliyayaasha ay imika haystaan shirkaduhu US 0.5 milyan



B. In la hirgaliyo isticmaalka koronto dhaliyayaasha xawaaraha dhexe ee ku shaqeeya naaftada iyo koronto dhaliyayasha ku shaqeeya gaasta dabiiciga ah, kuwaas oo loo adeegsanayo magaalooyinka waaweyn ee dalabka badan ee korontada leh

A3. New units 2029-2037: **US\$ 0.7 million.**

B3. 2029-37: **US\$ 450 million.**

A2. New units 2023-2028: **US\$ 0.5 million.**

B2. 2023-28: **US\$ 150 million.**

A1. New units 2019-2022: **US\$ 1.6 million.**

B1. 2018-22: **US\$ 240 million.**

2037
2036
2035
2034
2033
2032
2031
2030
2029
2028
2027
2026
2025
2024
2023
2022
2021
2020
2019
2018

C3. 2029-37: **US\$ 130 million.**

D3. 2029-37: **US\$ 40 million.**

C2. 2023-28: **US\$ 70 million.**

D2. 2023-28: **US\$ 25 million.**

C1. 2018-22: **US\$ 170 million.**

D1. 2018-22: **US\$ 45 million.**



C. Kordhinta isticmaalka solarka si ay door wayn uga ciyaarto koronto dhalinta maalintii



D. Dhisida layman koronto oo fooltayjkoodu sareeyo (sub-transmission) iyo dib u hayabaynta laymanka koronto qaybinta (distribution systems)

jaantuska 3aad. Hawlaha xidhiidha maalgalinta kaabayaasha koronto.

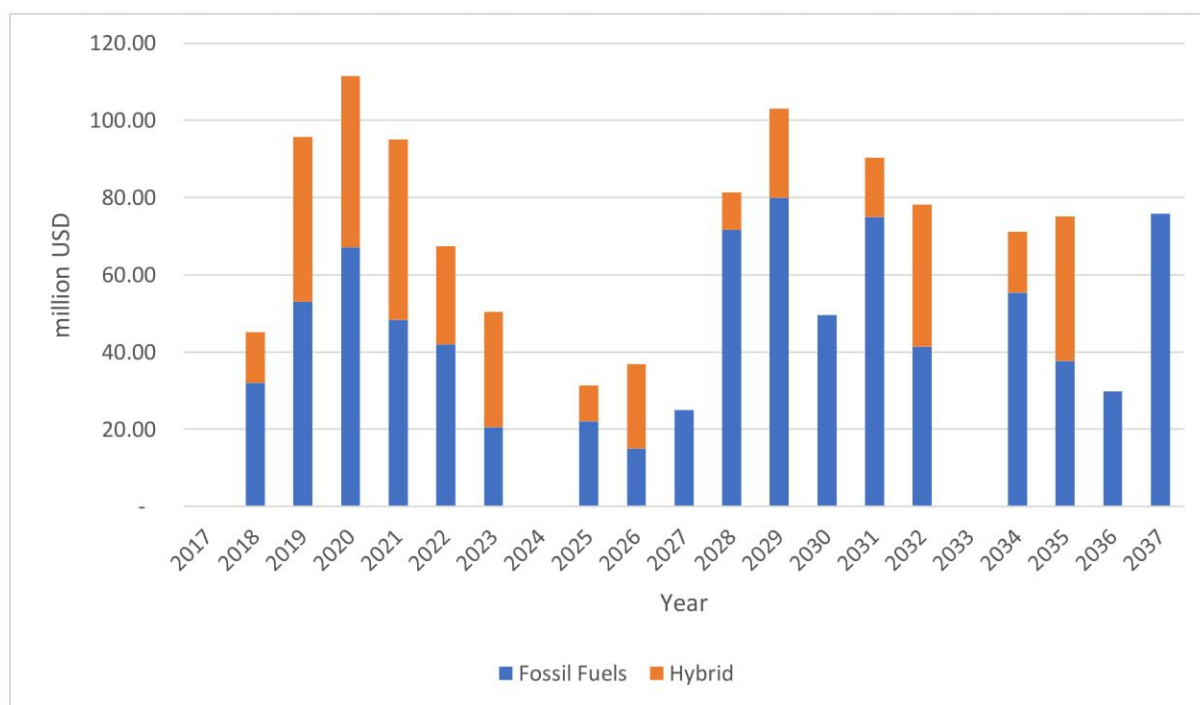
#	Faah-faahin	miisaniyad
A	<p>Maxsuulka maalgalinta kor ku xusani waxay noqondoontaa:</p> <ul style="list-style-type: none"> Inuu hagaago isla markaana uu beekhaamo isticmaalka iyo naafto cunka koronto dhaliyayaasha ku shaqeeya naaftadu. In kor loo qaado dayactirka lana dheereeyo cimriga koronto dhaliyayaasha ku shaqeeya naaftada. Ogaanshaha xadiga korontada la dhaliyey ee dhacda ah ee shirkad walba, kaas oo lala barbar dhigayo xadiga koronto ee laga iibiyey macaamiisha si loo ogaado xadiga awooda koronto ee ka luma shirkad kasta Shirkaduhu waxay awood u yeelanayaan inay si degdeg ah uga jawaaban dalabka koronto ee koraya iyagoo kaga jawaabaya kordhinta koronto dhalinta, taas oo ay ku lamaan tahay shabakadaha laymanka koronto qaybinta oo xamilka rarqaadkooda si wanaagsan loo miisaamay <p>Si hawlahani ay u hirgalaan waxa loo baahan yahay in tababar farsamo oo casri ah iyo taageeraba la siiyo shaqaalaha farsamo yaqaanad ah ee shirkadaha</p>	<p>Ilaa US \$4,500 koronto dhaliyihiiba.</p> <ul style="list-style-type: none"> Koronto dhaliyayaasha imika yaala: US\$ 0.5 million; Kuwa cusub 2019 – 2022: US \$1.6 million; Kuwa cusub 2023 – 2028: US \$0.5 million; kuwa cusub 2029 – 2037: US \$0.7 million.
B	<p>Magaalooyinka waaweyn ee somaliland gaar ahaan (Hargeisa, Berbera, Buroa, Borama) waxa la rajeynayaa mutaqbalka dhaw inay u baahan doonaan koronto dhaliyayaal cabirkoodu u dhexeeyo 2,000 ilaa 5,000 kilowat. Koronto dhaliyayaasha xawaaraha dhexe ee ku shaqeeya naaftada iyo koronto dhaliyayasha ku shaqeeya gaasta dabiiciga ah labbadooda noocba waxa laga qaadanayaa cabirada kor ku xusan. isugaynta labbadaa nooc ee dab dhaliye waliba marka la isku raaciyiyo si otomaatik ah (automation and synchronisation equipment) waxay siinayaan korontada ugu jaban uguna beekhaamka badan magaalooyinkaas</p>	<ul style="list-style-type: none"> 2018/22: US\$140 million; 2023/28: US \$80 million; 2029/37: US \$200 million.
C	<p>Waa in lagu daraa Solarka ku xidhan mareegta korontada (Grid-tied solar PV) si loo yareeyo kharashaadka ku baxa naaftada isla markaana loo kordhiyo koronto dhalinta maalintii laga dhalinaayo tamarta cusboonaata, taas oo loo isticmaalayo wax soo saarka (manufacturing) iyo macaamisha ganacsatada waaweyn. Hawshani waxa ay sidii loogu talagalay u qabsoomi kartaa marka koronto dhaliyayaasha xawaarahoodu dhereeyo ee naaftada ku shaqeya lagaga shaqeysiiyo heer</p>	<ul style="list-style-type: none"> 2012/22: US \$170 million; 2023/28: US \$70 million; 2029/37: US \$130 million;

#	Faah-faahin	miisaniyad
	beekhaameedkooda(efficient zone) kaas oo ah 80 -100%. Solarka ku xidhan mareegta korontada ee lagu darayo systemku waa inay dabooshaa 20 – 25 % oo koronto dhalin ah maallintii.	
D	<p>Si loo hirgaliyo hawlahaan hoos ku xusan waxa loo baahan yahay xadigan maal-galineed:</p> <ul style="list-style-type: none"> • Kasoo qaadida awooda korontada goobaha cusub ,kuwaas oo isugu gaynaya koronto dhalinta warshado waaweyn oo cusub • Isku xidhka laymanka koronto qaybinta ee shirkadaha kala duwan ee korontada ee ka hawlgala goobaha isku dhawdhaw • Dhisida layman koronto oo fooltayjka dhexe (11Kv,33Kv,66Kv) iyo layman koronto oo fooltayjkoodu sareeyo(132Kv) • Dhisida barkulan koronto oo ka samaysan safeexado maar ah (bus-bars) kuwaas oo suurta galinaya inay kulmiyaan koronto ka timid koronto dhaliyayaal kala duwan • Dib-u habayn lagu sameeyo laymanka korontada qaybiya, si loo beekhaamiyo awooda koronto ee loo qaybinayo macaamiisha 	<ul style="list-style-type: none"> • 2018/22: US \$45 million; • 2023/28: US \$25 million; • 2029/37: US \$40 million.

Maalgalinta kaabayaasha koronto ee kor ku xusani waa maalgalin wayn oo daboolaysa wadanka oo dhan

jaantuska 11aad ee hoos ku sawiran wuxuu muujinayaa maalgelinta loo baahan yahay in lagu maalgaliyo warshadaha koronto ee ku shaqeeya shidaalka saliida sida naaftada iyo gaasta, si ay u haqab tiraan dalabka koronto iyadoo xisaabta lagu darayo ka soo kabashada awooda koronto ee lunta iyo adeeg koronto oo joogto ah, waxa kale oo ku jirta solar systemka lagu darayo.

jaantuska 2. Maalgalinta koronto dhalineed ee Somaliland iyadoo lagu daray sixir bararka



Source: Unicon

Maadaama oo nidaam go'aan qaadasho oo kala duwan loo baahan yahay marka mid kasta la eegayo kharashkiisa ugu yar ee maalgashi, waxaa mid kasta loola dhaqmay si gaar ah, kharashka ugu yar ee maalgalineed wuxuu noqonayaa in la doorto koronto dhalinta ku salaysan shidaalka saliida, laakiin waxa iyaduna badan kharash sanadeedkeda gaar ahaan kharashka sanad laha ah ee shidaalka kaas oo ka dhigaya mid ka qaalisan marka la xisaabiyo cimrigiisa, nidaamka tamarta isku sidkan (Hybrid) dhinaca kale qiimaha kharash ee ku baxaaya guud ahaan cimriga nidaamka tamarta isku sidkan (Hybrid system) iyadoo xata lagu daray rakibaada solarka wuxuu si aad ah u yaraynayaa kharashka sanad laha ah ee shidaalka, sidaa awgeed kharashka guud oo u kala baxaya, kharashka ugu horeeya ee maalgalinta (Capital) kharashka uu ku shaqeynaayo systemku (operating), kharashka dayac tirka iyo shidaalka ee guud ahaan muddada saadasha daraasada ayaa la yareynayaa

fiiro gaar ah.

Jaantusku waxa kaliya ee uu sharxayaa kharashka maalgalinta, laakiin ma muujinayo kharashka guud ee muddada cimriga systemka,
Shaxda soo socotaa waxay sharxaysaa macluumaad shaxaysan kaas oo muujinaya mudooyinka gaaban, dhexe iyo ta ugu dheer.

jaantuska 4. Maalgalinta koronto dhalineed oo la soo koobay

2018 – 2022 (USD million)	2023 – 2028 (USD million)	2029 – 2337 (USD million)	Total (USD million)
<i>Kuwa ku shaqeeya shidaalka qaydhin</i>			
242	154	445	841
<i>Unugyada qasabadaha oo kali ah – oo lagu daray maalgalinta shidaalka qaydhin</i>			
172	70	128	370