# MINISTRY OF ENERGY OF THE REPUBLIC OF AZERBAIJAN <br> ENERGY REGULATORY AGENCY 



## Mr.Abdulla Zayed

Head, Development \& Investment (Central Asia \& Russia), Abu Dhabi Future Energy Company PJSC - Masdar
Subiect Overhead Tranmission Lines: Area 60 Solar PV Project

Dear Mr Abdulla,
I hope this letter finds you and Masdar team well.
I refor to the Project Documents signed between the Ministry of Energy of the Repubtic of Azerbaijan, Azerenerii and Abu Dhabi Future Energy Company PJSC - Masdar ("Masdar") dated $7^{\text {th }}$ April 2021. We would like to reiterate the importance of the continued collaboration between Masdar and the main stakeholders in the Republic of Azerbaijan to support the development activities related to the 230 MW Wac solar project at Area 60 (the "Project").

In relation to the single-circuit 330 kV overhead transmission line, 55 km long (the "OHL"), we hereby confirm that the OHL is not being built solely for the purposes of Project. The OHL will serve a number of other projects and plants in future.

The Government of the Republic of Azerbaljan ("GOA") has already established Alat Trade Zone next to the area of the Project (located in the Alat region), and electricity demand is expected to increase significantly in future in that area from a mixture of public and private sector enterprises.

Yours sincerely.


Appendix B Proposed Project Layout

SITE BOINDARY AREA $=5495340 \mathrm{~m}^{2}$
SIIE BONDARY AREA＝${ }^{\text {FENCE AREA5489726m }}$ FELCE PERTIETER＝1 1225 m
Systeu specification DC C．APACITY＝310．99MIII
AC CAPCCITY＝26．6 84WIW
Equipuent quavitities
5142 TOTAL TRACKERS 575904 TOTAL MODLLES
20568 TOTAL STRIVG
29 mv Stations
20 Power blocks with 177 trackers each
grer
PV module Specifications：
LRF5－2PHBD $520-545 \mathrm{M}$
RATED PONER＝540W
OPEN CIRCUIT VOLTAGE＝49．50 ModULE EFFIICIENCY＝21．1\％
INVERTER SPECIFICCATION HUAVEI SUN2000－200KTL
max PV InPUT Voltacee 1500 V AC OUTPUT PONER＝209． 12 kVA a38． $2^{\circ}$
mounting systew specificatio
BIFACIIL SINGLE AXIS TRACKER
4 STRINGS PER TRaCKER
Tracking angie range：$\pm 60^{\circ}$
Azimuth $=0^{\circ}$
PITcH
LEGEND

## PV Trackers <br> Road in site

Access road
MV Transformer
Fence
Camera

| （DEC）东方电气 <br> DONGFANG ELECTRIC |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Appouke |  | Area 60 Solar Power proect |  | $\begin{array}{\|c\|c\|c\|c\|} \hline \text { Bidding STAGE } \\ \hline \text { General layoutSECTON } \\ \hline \end{array}$ |  |
| verafeo |  |  |  |  |  |
| Examed |  | General Layout of PV Plant |  |  |  |
| वHeced |  |  |  |  |  |  |  |
| descoued |  |  |  |  |  |  |  |
| oraw |  |  |  |  |  |
|  | wowre，Pre | Scme | $\square$ | DAIE | 2021.10 |
| d．CNa |  | оramig no． |  |  |  |

Appendix C Key Features along the OHL Route

| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL - 12 | $\begin{gathered} 356944.2 \\ 4 \end{gathered}$ | 4424914.31 | Livestock farm outside the OHL route |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RL-1 | $\begin{gathered} 356924.3 \\ 3 \end{gathered}$ | 4423989.15 | Baku-Gazakh-Georgia railway |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| CR-1 | $\begin{gathered} 356824.5 \\ 5 \end{gathered}$ | 4423851.13 | At this point, indicated as CR-1 in the KMZ file, there is a green area located on the right side of the road between the Baku-Gazakh-Georgia railway and the Baku-Gazakh-Astara-Georgia highway. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RL-1 | $\begin{gathered} 356695.1 \\ 6 \end{gathered}$ | 4423649.98 | Baku-Gazakh-AstaraGeorgia highway |  |




| Cosem |  | combes | \%omeme | momambe |
| :---: | :---: | :---: | :---: | :---: |
| ${ }_{\text {w }}^{2}$ | ${ }_{\text {saser }}$ | ${ }^{\text {ces }}$ |  |  |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| CR-3 | $\begin{gathered} 356311.5 \\ 6 \end{gathered}$ | 4423100.36 | There is an empty plot of land not used for planting here. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| TR-1 | $\begin{gathered} 355814.6 \\ 9 \end{gathered}$ | 4422378.82 | There is a shallow ditch passing perpendicular to the future route of 330 kV "Alyat SPP - Janub PP TL" at this point |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-2 | $\begin{gathered} 355667.9 \\ 5 \end{gathered}$ | 4422161.92 | At this point, the dirt road runs parallel to future route of 330 kV "Alyat SPP - Janub PP" TL. |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| TR-2 | 355658.1 <br> 8 | The area is covered with <br> sparse vegetation. |  |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| TR-3 | 355420.2 <br> 9 | 4422008.87 | Two plastic water lines <br> cross the future route of <br> "Alyat SPP - Janub PP TL" <br> and there are naturally <br> growing tamariks bushes <br> located in this area. The <br> height of the bushes is <br> less than 4-5 m. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-3 | $\begin{gathered} 354833.9 \\ 2 \end{gathered}$ | 4422033.16 | From this point, there is a dirt road and through its right side is a shallow ditch pass. |  |









| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| TR-6 | $\begin{gathered} 353589.9 \\ 3 \end{gathered}$ | 4422082.19 | There is a massif of densely growing natural tamariks bushes at this point, not exceeding 3-4 m in height. |  |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RV-5 | $\begin{gathered} 353078.2 \\ 2 \end{gathered}$ | 4422092.30 | There is a massif of densely growing natural tamariks bushes at this point, not exceeding 3-4 m in height. A largediameter pipeline runs on the right side of the bush in the south direction. | Riv. 5 <br> TR27 |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL-13 | $\begin{gathered} 352016.8 \\ 7 \end{gathered}$ | 4422145.79 | At this point, a cattle farm is located approximately 400 m from the TL route. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL-14 | $\begin{gathered} 351003.7 \\ 4 \end{gathered}$ | $4422408.02$ | At this point there is a gas collection, processing and distribution station owned by SOCAR is located. |  |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-12 | $\begin{gathered} 349856.3 \\ 2 \end{gathered}$ | $4422042.37$ | At this point a dirt road is located that crosses the TL route and runs through the valleys to SOCAR's gas processing plant. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL-15 | $\begin{gathered} 349682.0 \\ 2 \end{gathered}$ | 4422250.95 | At this point the SOCAR's gas processing plant is located approximately 230 m to the right of the TL route. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-13 | $\begin{gathered} 349473.0 \\ 4 \end{gathered}$ | 4422016.97 | At this point, there is a dirt road leading to the oil and gas fields is located. There are operating wells on the right side of the road. | RD-18 |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| CR-5 | $\begin{gathered} 349345.8 \\ 5 \end{gathered}$ | 4421999.53 | At this point, there is a dirt road leading to the oil and gas fields is located. The surrounding plots of land are not used for planting. |  |







| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| CR-6 | $\begin{gathered} 345182.1 \\ 3 \end{gathered}$ | 4421517.92 | This area is a vacant plot of land with a relatively smooth relief, not used for agriculture and with sparse steppe vegetation. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| CR-7 | $\begin{gathered} 344525.3 \\ 9 \end{gathered}$ | 4421403.38 | This area is a vacant plot of land with a relatively smooth relief, not used for agriculture and with sparse steppe vegetation. |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RD-18 | 344079.4 <br> 4 | 4421348.82 | From this point a dirt <br> road runs parallel to the <br> route of the future TL |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL-17 | $\begin{gathered} 342843.1 \\ 7 \end{gathered}$ | 4421340.47 | At this point a cattle farm is located approximately 250 m to the right of the TL route. No one was on the farm during the inspection. |  |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-19 | $\begin{gathered} 342879.7 \\ 0 \end{gathered}$ | 4421114.28 | At this point a dirt road is located that crosses the TL route. |  |
|  |  |  |  |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| TR-8 | 343044.1 <br> 3 | 442139.69 | There are sparsely grown <br> tamariks bushes under <br> natural conditions at this <br> point. The height of the <br> bushes does not exceed <br> $2.5-3.0 ~ m . ~$ |  |






| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| GA-11 | $\begin{gathered} 336537.3 \\ 1 \end{gathered}$ | 4420853.26 | The land at this point consists of natural tamariks bushes. |  |
| RD-20 | $\begin{gathered} 335917.0 \\ 9 \end{gathered}$ | 4420968.33 | From this point a dirt road runs near the existing pipeline parallel to the TL route. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| RD-21 | $\begin{gathered} 335139.8 \\ 9 \end{gathered}$ | $4420860.62$ | There is no road, crossing the TL , at this point. |  |





| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| BL-19 | $\begin{gathered} 333329.1 \\ 4 \end{gathered}$ | $4420249.69$ | The Alat-Shirvan railway crosses the TL route from this point. |  |
| RV-10 | $\begin{gathered} 332879.0 \\ 7 \end{gathered}$ | 4420680.59 | From this point, a dirt road runs parallel to the TL route. | $[2 \times 020]$ |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| $\begin{aligned} & \text { EP-3 } \\ & \text { EP-4 } \end{aligned}$ | $\begin{gathered} 332042.8 \\ 3 \\ 331985.9 \\ 2 \end{gathered}$ | $\begin{aligned} & 4420592.01 \\ & 4420608.02 \end{aligned}$ | There are no electric towers at the points marked as EP-3 and EP-4 on KMZ-3 file. |  |
| RL-2 | $\begin{gathered} 331958.8 \\ 5 \end{gathered}$ | 4420605.61 | The Alyat-Shirvan railway crosses the TL route from this point. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-5 | $\begin{gathered} 331926.7 \\ 4 \end{gathered}$ | 4420622.23 | From this point, a lowvoltage power line runs parallel to the AlyatShirvan railway. | वlay |
|  |  |  |  |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| RD-22 | $\begin{gathered} 331296.7 \\ 5 \end{gathered}$ | $4420551.86$ | From this point a trench, excavated parallel to the surface pipeline, passes. |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :--- | :---: | :---: | :---: | :---: | :---: |
| GA-6 | 331219.6 <br> 3 | 4420528.35 | No greenery or shrubs <br> were observed at the <br> point marked GA-6 in <br> the KMZ-3 file. |  |
| RV-13 | 330937.3 <br> 6 | 4420524.15 | No waterways, ditches or <br> canals were found at the <br> point marked as RV-13 <br> in the KMZ-3 file. |  |





| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| PD-2 | $\begin{gathered} 329947.7 \\ 2 \end{gathered}$ | 4420430.24 | No water basin was observed at this point. |  |
| PD-3 | $\begin{gathered} 329397.2 \\ 8 \end{gathered}$ | 4420396.35 | No water basin was observed at this point. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-23 | $\begin{gathered} 329146.2 \\ 7 \end{gathered}$ | 4420390.63 | At this point, a dirt road crossing the TL was observed. |  |
| RD-24 | $\begin{gathered} 328955.4 \\ 8 \end{gathered}$ | 4420370.31 | There is a dirt road crossing the TL route at this point. | RD-24 |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-25 | $\begin{gathered} 328878.7 \\ 2 \end{gathered}$ | 4420369.42 | At this point, traces of a dirt road intersecting with the TL route are visible. | TRD-25 |
| RD-26 | $\begin{gathered} 328395.9 \\ 1 \end{gathered}$ | 4420346.12 | There is a dirt road crossing the TL route at this point. |  |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | At this point, the TL route intersects with the Shirvan collector. The distance between the two sides of the collector on the ground surface is more than 200 m , the distance between the ground surface and the water level in the collector is about 50 m . This collector is the most serious obstacle that crosses the TL route. |  |
| AR-2 | $\begin{gathered} 327757.8 \\ 6 \end{gathered}$ | 4420334.72 | At this point, traces of a dirt road intersecting with the TL route were observed. | $A R-2$ |







| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-30 | $\begin{gathered} 325452.0 \\ 6 \end{gathered}$ | 4420303.20 | From this point, a dirt road extends in the direction of Shirvan city. |  |
| GF-1 | $\begin{gathered} 325198.7 \\ 1 \end{gathered}$ | 4420314.44 | There is an empty area of low hills at this point. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| RD-31 | $\begin{gathered} 324966.9 \\ 1 \end{gathered}$ | 4420302.45 | From this point, a dirt road extends in the direction of Shirvan city. On the left side of the road, the towers of highvoltage overhead power lines are visible. |  |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-7 | $\begin{gathered} 324530.4 \\ 6 \end{gathered}$ | $4420281.38$ | From this point 4 OHLs parallel to each other pass at a certain distance. | $E P-7$ |
| EP-2 | $\begin{gathered} 324523.0 \\ 8 \end{gathered}$ | 4420325.85 | At this point, the same landscape is observed as at EP-7 point. From here 4 OHLs parallel to each other pass at a certain distance. |  |





| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-11 | $\begin{gathered} 324346.9 \\ 7 \end{gathered}$ | 4420263.83 | From this point 4 PTLs pass along the road, 2 on both sides of the road. Vegetation in the area is very poorly developed. | FP-11 |
|  |  |  |  |  |
| EP-10 | $\begin{gathered} 324337.7 \\ 5 \end{gathered}$ | 4420307.21 | The landscapefrom this point is the same as from EP-11 point. PTL passes through both sides of the road. |  |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| TR-12 | $\begin{gathered} 323973.0 \\ 1 \end{gathered}$ | 4420275.43 | At this point, the TL route intersects with the existing dirt road. |  |
| FW-7 | $\begin{gathered} 323863.1 \\ 7 \end{gathered}$ | 4420287.96 | The landscape at this point is the same as at FW-6 point, plastic pipeline runs through the area in the direction of Shirvan city. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| BL-21 | $\begin{gathered} 323699.0 \\ 2 \end{gathered}$ | 4420562.13 | This point is located about 300 m from the TL route. From this point high-voltage OHL passes, where administrative building and transmission station for mobile communications are located. |  |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-12 | $\begin{gathered} 323713.5 \\ 3 \end{gathered}$ | 4420332.16 | From this point highvoltage OHL passes, there is a dirt road along the route of this line. | $E P-12$ |
| RD-32 | $\begin{gathered} 323740.9 \\ 3 \end{gathered}$ | 4420285.37 | From this point a dirt road runs in the direction of the Shirvan city, and the terrain rises towards the city. The vegetation of the area is very poorly developed. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-13 | $\begin{gathered} 323464.7 \\ 5 \end{gathered}$ | $4420189.32$ | From this rising point, high-voltage OHL runs and dirt road passes under it. | $\text { EPF } 18$ |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-14 | $\begin{gathered} 323263.2 \\ 3 \end{gathered}$ | $4420075.83$ | At this point, highvoltage OHL passes through the top of the hill. There is a dirt road running along its route. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-33 | $\begin{gathered} 323246.8 \\ 0 \end{gathered}$ | $420046.76$ | At this point, highvoltage OHL passes through the top of the hill. There is a dirt road running along its route. |  |
| PD-4 | $\begin{gathered} 322970.2 \\ 2 \end{gathered}$ | 4419875.78 | At this point, the terrain was complex and intersected by numerous hollows. There is a possibility of water accumulation in the hollows during heavy rains. | PD-4 |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-16 | $\begin{gathered} 322889.2 \\ 2 \end{gathered}$ | $4419880.46$ | From this point, which has a relatively smooth relief, dirt road and lowvoltage OHL pass. |  |
| GA-9 | $\begin{gathered} 322888.3 \\ 2 \end{gathered}$ | 4419849.53 | To the right and left of this point, dirt road with poorly developed vegetation passes. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| RD-34 | $\begin{gathered} 322830.2 \\ 1 \end{gathered}$ | 4419821.08 | Dirt road passes from this point. The left side of the road is a deep valley and the right side is a relatively smooth plain. Towers of the highvoltage OHL are visible ahead. | $2 D-34$ |
| GF-2 | $\begin{gathered} 322733.0 \\ 7 \end{gathered}$ | 4419771.36 | Dirt road passes from this point. The left side of the road is a deep valley and the right side is a relatively smooth plain. Towers of the highvoltage OHL can be seen on the hill ahead. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| GF-3 | $\begin{gathered} 322558.4 \\ 6 \end{gathered}$ | $4419701.60$ | At this point, the landscape is similar to point GF-2, with highvoltage OHL towers on the slope of the opposite valley and on the top of the hill. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| FW-8 | $\begin{gathered} 322417.8 \\ 8 \end{gathered}$ | 4419621.09 | From this point, a largediameter surface pipeline passes through the dirt road and the right side of the road. There are towers of highvoltage OHL on the slope and above the hill in front. |  |
| RD-35 | $\begin{gathered} 322396.3 \\ 1 \end{gathered}$ | 4419601.35 | From this point a dirt road extends to the hill in front, and high and low voltage OHLs pass on the right and left sides of the road. | D-3 |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| TR-13 | $\begin{gathered} 322371.7 \\ 8 \end{gathered}$ | 4419615.68 | At this point the naturally growing tamariks bushes and the PTL passing through them are located. The height of some trees is about 5-6 m. | TR-1 |
| BL-3 | $\begin{gathered} 322305.9 \\ 8 \end{gathered}$ | 4419599.10 | At this point the private yard area is located, PTL passes behind it. The approximate height of the trees in the yard reaches $8-10 \mathrm{~m}$. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| RD-36 | $\begin{gathered} 322329.4 \\ 1 \end{gathered}$ | 4419573.21 | From this point, on the right and left sides, dirt road passes with naturally growing tamariks bushes. Currently, an underground pipeline, crossing the dirt road, is under construction here. | $R D-36$ |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-18 | $\begin{gathered} 322343.4 \\ 3 \end{gathered}$ | 4419559.15 | The area at this point is covered with naturally growing shrubs. There are trees planted on the side of the road, reaching a height of 7-8 $m$, on the left side of the area. |  |
| EP-19 | $\begin{gathered} 322307.0 \\ 2 \end{gathered}$ | 4419565.49 | Numerous PTLs pass through this point, which is densely covered with natural vegetation. The height of the bushes doesn't exceed 1.5-2.0 m. |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | The land at this point is densely covered with naturally growing tamariks and other steppe plants. Sahədən EVX-i keçir. There are artificially planted trees up to 6-8 m in height on the left side of the area. |  |
| GA-12 | $\begin{gathered} 322338.1 \\ 9 \end{gathered}$ | 4419505.37 | This point is covered with naturally growing shrubs and artificially planted trees up to 5-6 m in height. PTL passes through the area. | CA-1 |







| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| BL-7 | $\begin{gathered} 322088.9 \\ 5 \end{gathered}$ | 4419407.31 | At this point, there is a one-story building on a vacant plot of land covered with gravel. There are trees more than 10 m high on the left side of the building. Several high-voltage |  |



| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | At this point plot of land fenced with a metal mesh and covered with natural vegetation is located. A low-pressure gas pipeline passes through the land. Trees up to $8-10 \mathrm{~m}$ high have been planted on the left side of the area. |  |
| EX-5 | $\begin{gathered} 322006.0 \\ 8 \end{gathered}$ | 4419327.63 | Several surface pipelines pass through this point. There is a pile of soil excavated from a previously dug trench in the area. The area is covered with tamariks and sparse steppe plants. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| FW-9 | $\begin{gathered} 322023.1 \\ 0 \end{gathered}$ | 4419306.39 | Several surface pipelines and concrete trays pass through this point; there are remnants of an abandoned oil well behind the pipeline and high-voltage power lines | $\mathrm{F} \mathrm{~W}-9$ |
| EP-25 | $\begin{gathered} 321983.2 \\ 7 \end{gathered}$ | 4419305.87 | At this point, 3 highvoltage PTLs going to the Janub PP and concrete tray parallel to these lines are passing. The area is covered with low shrubs. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EX-4 | $\begin{gathered} 322030.1 \\ 4 \end{gathered}$ | 4419221.34 | Several pipelines, intersecting each other, run from this point. There is a pile of soil left from excavations in the area. The area is covered with sparse natural vegetation. | $E$ |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-27 | $\begin{gathered} 322041.5 \\ 0 \end{gathered}$ | 4419178.24 | There are several pipelines crossing the asphalt road At this point. There is surface pipeline on the right side of the road, and there are trees up to $6-8 \mathrm{~m}$ high on both sides. |  |
| RD-38 | $\begin{gathered} 322020.3 \\ 0 \end{gathered}$ | 4419174.22 | At this point, asphalt road with numerous power lines over it, and lighting poles on the right side are located. Natural shrubs grow on both sides of the road. | $R D-38$ |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-26 | $\begin{gathered} 322042.9 \\ 6 \end{gathered}$ | 4419166.49 | There are no electric or lighting poles at this point. | $\mathrm{HF}$ |
| EP-28 | $\begin{gathered} 322007.1 \\ 5 \end{gathered}$ | 4419103.78 | Numerous PTLs of different voltage pass through this area covered with low natural vegetation. | EP-28 |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| EP-29 | $\begin{gathered} 322048.3 \\ 3 \end{gathered}$ | 4419087.58 | Several PTLs and pipelines, crossing them, and concrete trays are located in this area, which is densely covered with low vegetation. |  |
| EP-30 | $\begin{gathered} 322047.1 \\ 4 \end{gathered}$ | 4419076.66 | The landscape at this point is the same as at point EP-29. | P-30 |



| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| EP-33 | 322008.3 <br> 7 | 4419073.76 | Numerous OHLs pass <br> parallel to each other <br> from this point, which is <br> densely covered with <br> low natural vegetation. |  |  |
| EP-34 |  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | From this point surface pipelines, parallel to each other and the PTL, crossing them, pass. There are stone building and trees up to $6-8 \mathrm{~m}$ high behind the pipes. The area is densely covered with natural vegetation. |  |
| EP-35 | $\begin{gathered} 322044.1 \\ 8 \end{gathered}$ | 4419022.80 | From this point, surface pipelines, parallel to each other, and numerous high-voltage PTLs pass. The area is densely covered with low natural vegetation. |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| PD-5 | $\begin{gathered} 322059.1 \\ 4 \end{gathered}$ | 4418955.79 | At this point, the area consists of a waterless depression densely covered with low natural vegetation. |  |
| EP-36 | $\begin{gathered} 322081.9 \\ 7 \end{gathered}$ | 4418881.29 | Numerous PTLs intersect at this point, densely covered with low natural vegetation. |  |





| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EP-41 | $\begin{gathered} 322121.2 \\ 0 \end{gathered}$ | 4418590.91 | This area, densely covered with low natural vegetation, is a natural depression and OHLs are visible in the background. |  |
| EP-42 | $\begin{gathered} 322071.1 \\ 4 \end{gathered}$ | 4418585.96 | From this point highvoltage PTL going to / from the Janub PP passes. The area is covered with low natural vegetation. | $0.42$ |


| Location <br> ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| EX-3 | 322101.9 <br> 9 | 418558.72 | There is an arch covered <br> with natural vegetation <br> in this area, where many <br> high and low voltage <br> OHLs pass parallel and <br> intersecting. |  |  |
| EP-43 |  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Numerous PTLs run parallel to each other in this area, which is densely covered with low natural vegetation. There is a production building on the left side of the area. |  |
| EP-44 | $\begin{gathered} 322110.6 \\ 1 \end{gathered}$ | 4418527.41 | Numerous PTLs run parallel to each other in this area, which is densely covered with low natural vegetation. | EP-44 |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| EX-2 | $\begin{gathered} 322120.2 \\ 1 \end{gathered}$ | 4418442.10 | No boring works were observed at EX-2 point. |  |
| RD-40 | $\begin{gathered} 322124.4 \\ 9 \end{gathered}$ | 4418423.87 | The area at this point consists of two dirt road forks. Dense low natural plants grow around the dirt roads. High-voltage OHL and pipes of industrial enterprise are visible in the background. |  |




| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | At this point, trench extends between numerous OHLs, which are parallel to each other. There was no water in the trench at the time of observation. The surrounding area is covered with dense natural vegetation. |  |
| EP-46 | $\begin{gathered} 322116.9 \\ 2 \end{gathered}$ | 4418258.08 | At this point, the last high-voltage OHLs going to / from the Janub PP were observed. |  |
|  |  |  |  |  |


| Location ID | Coordinates |  | Description | Number of point in KMZ file (above) / Actual photo of point (below) |
| :---: | :---: | :---: | :---: | :---: |
| FW-12 | $\begin{gathered} 322114.2 \\ 5 \end{gathered}$ | 4418244.23 | Remains of previous excavations were found in this area adjacent to the fence of the Janub PP building. |  |
|  |  |  |  |  |

