مدينة الملك عبد الله للطاقة
الذرية والمتجددة K•A•CARE

Service Catalogue K.A.CARE

How to Access E-Services

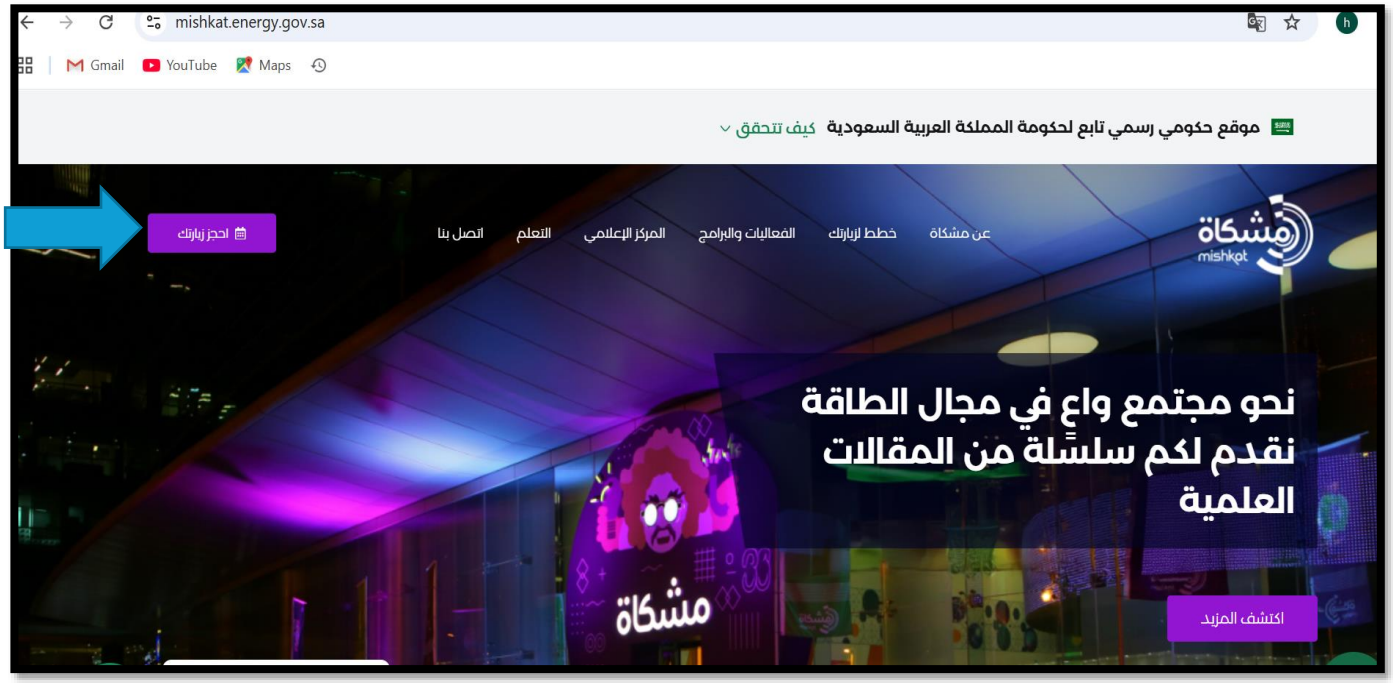
Beneficiaries can access all e-services through several available channels to ensure flexibility and ease of use. These channels are:

- The official website of Mishkat Interactive Center
- The official website of King Abdullah City for Atomic and Renewable Energy
- Tawakkalna Portal: Under the e-services of King Abdullah City for Atomic and Renewable Energy

Basic Steps to Access E-Services

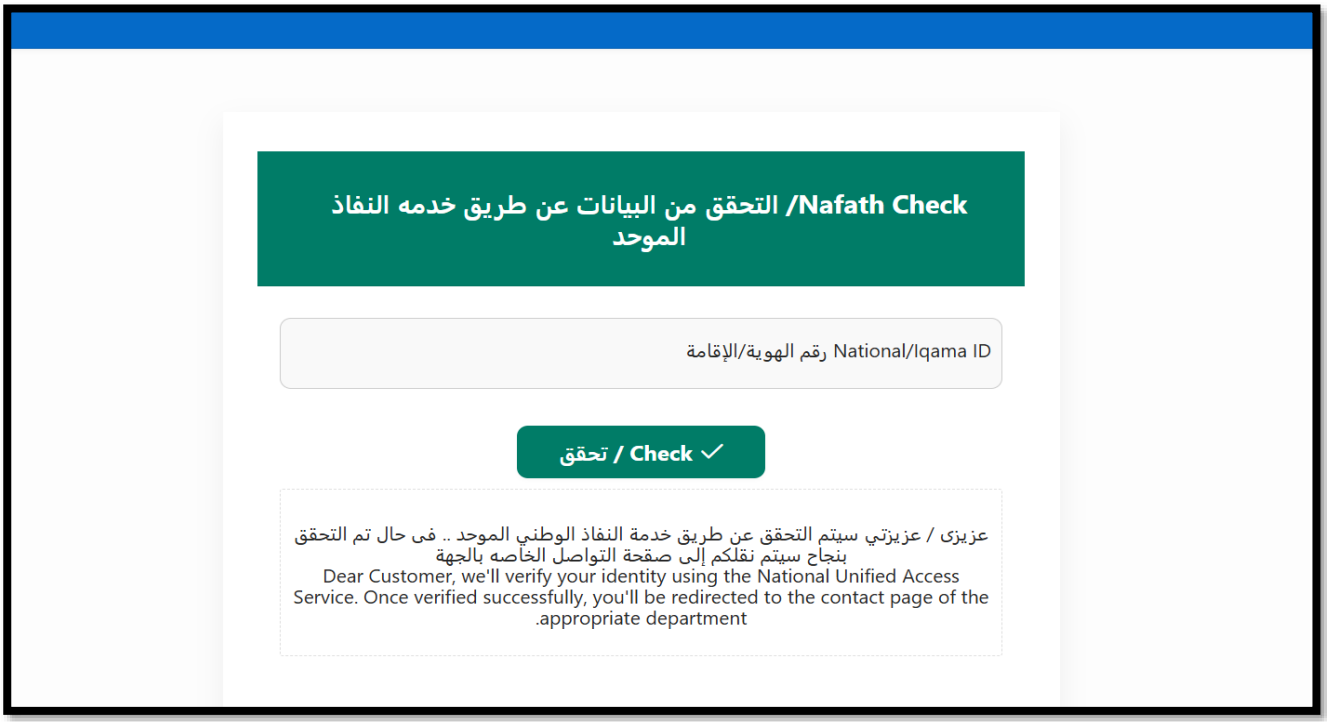
Book a Visit to Mishkat Interactive Center

1. Visit Mishkat Interactive Center website and click on "Book Your Visit"

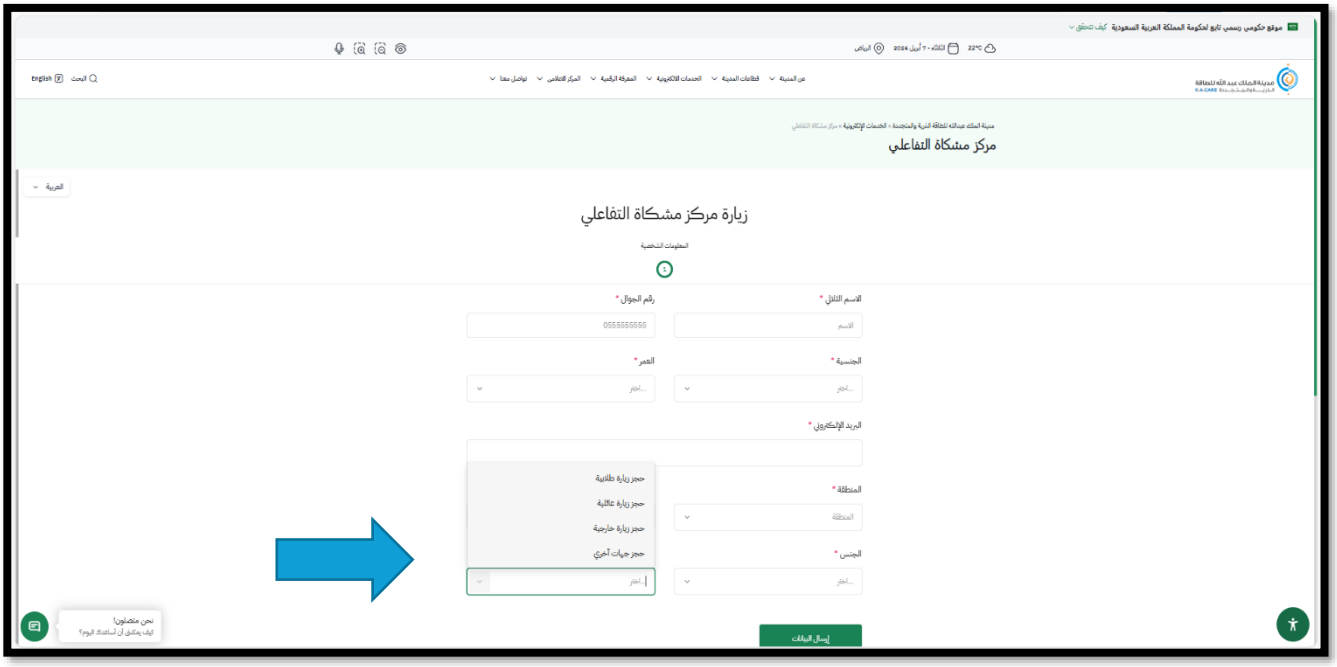


2. Click on “Start Service”

3. Enter your National/ Iqama ID to verify your identity using the National Unified Access Service.

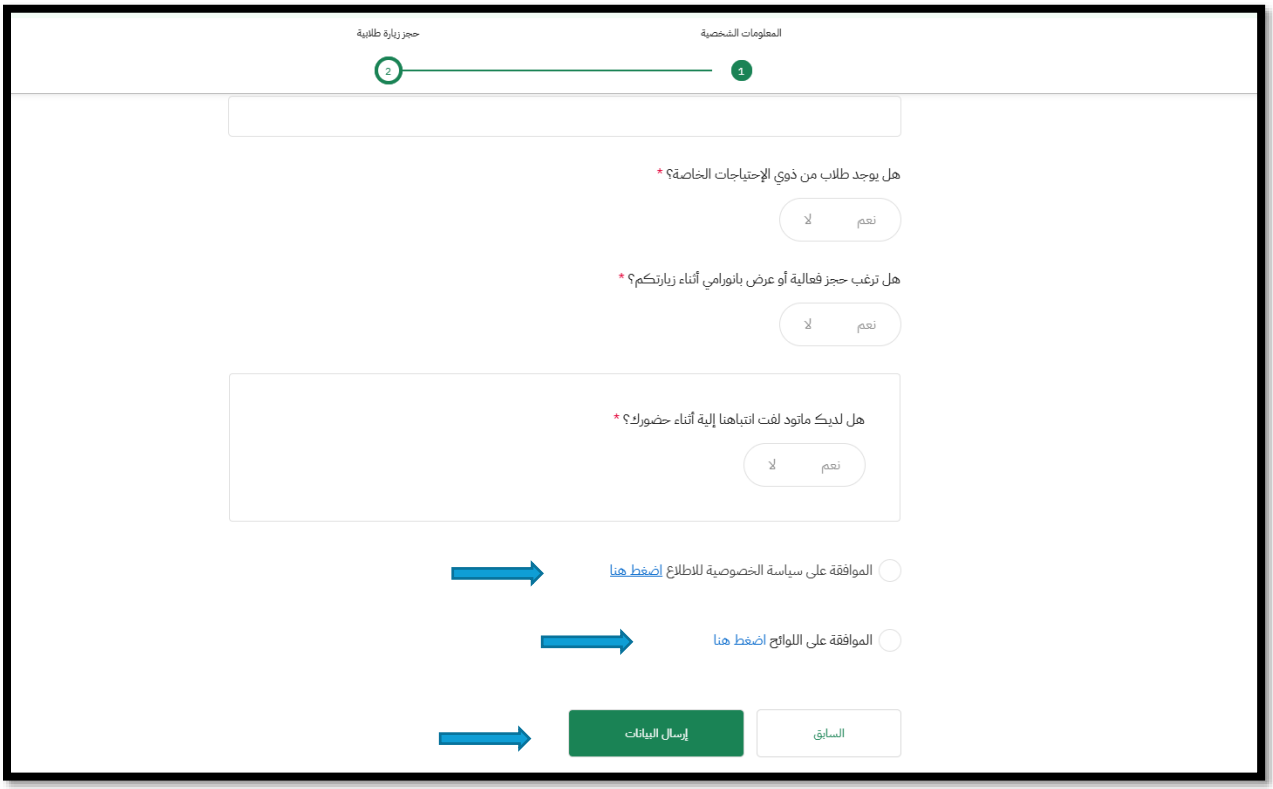


4. Complete your personal information and select the type of visit (student, family, external, or other).



5. Complete the required information related to the entity's name and supervisor's information

6. Review and agree to the Privacy Policy and Visit Regulations, then click on "Submit Data"



7. A confirmation message indicating successful submission of your application will appear, and an email and a text message containing your request number will be sent

Volunteering Mishkat Interactive Center

About E-Services

Mishkat Interactive Center provides a volunteering service for individuals who wish to volunteer at the Center.

Volunteer Service at Mishkat Interactive Center

Service Description

Mishkat Interactive Center provides a unique volunteering opportunity that enables volunteers to gain new experiences and develop their personal and professional skills. Through this service, volunteers can participate in organizing events, interact with visitors, and enhance their educational experience.

Service Requirements

- Verify your identity through Nafath
- Create an account on Mishkat Interactive Center website and complete the application form
- Create an account on the National Volunteer Platform
- Agree to Volunteering Regulations
- Agree to Privacy Policy

Service Completion Time

Two working days

Targeted Audience

Individuals and educational institutions

How to Access E-Services

Beneficiaries can access all e-services through several available channels to ensure flexibility and ease of use. These channels are:

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- The official website of King Abdullah City for Atomic and Renewable Energy
- Tawakkalna Portal: Under the e-services of King Abdullah City for Atomic and Renewable Energy

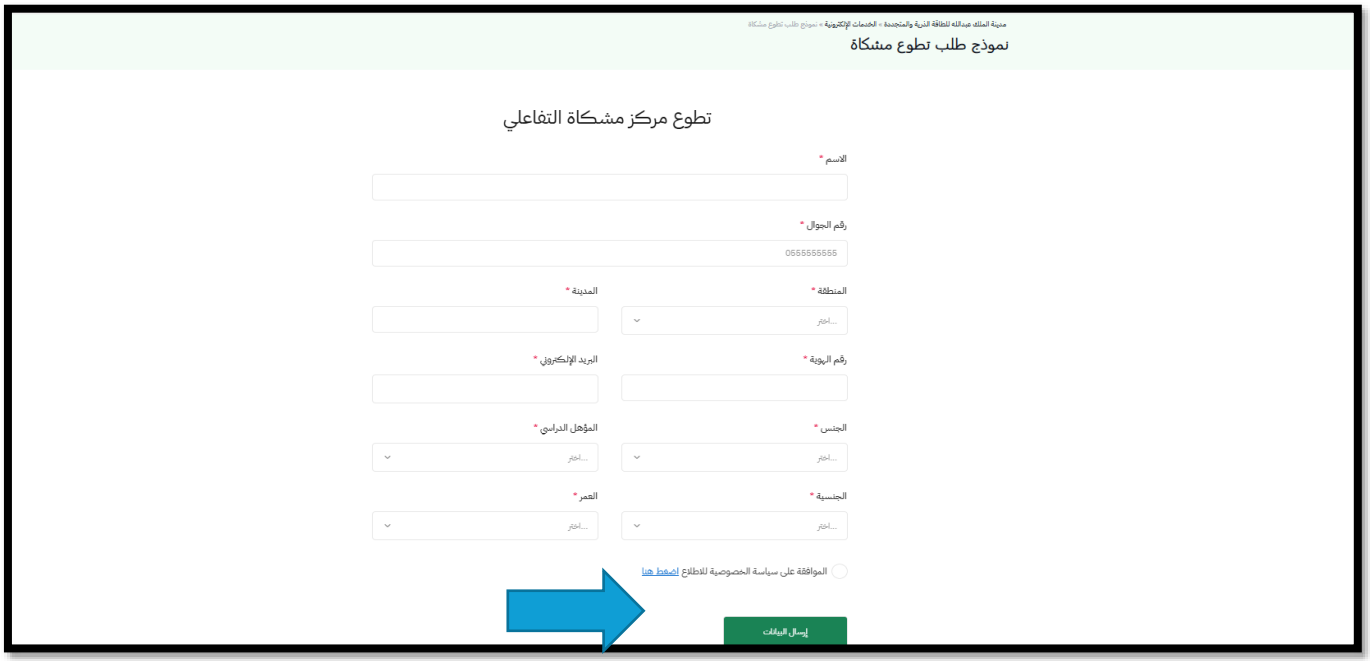
Basic Steps to Access E-Services

Volunteer Service at Mishkat Interactive Center

8. Access the e-services and select “volunteer service at Mishkat Interactive Center”.

9. Click on “Start Service”

10. Complete the application form with the required information, review and agree to the Privacy Policy, then click on “Submit Data”



4. A confirmation message indicating successful submission of your application will appear, and an email and a text message containing your request number will be sent

Renewable Resource Atlas Portal

Introduction

The Renewable Resource Atlas platform, established by King Abdullah City for Atomic and Renewable Energy (K.A.CARE), is a specialized digital platform designed to provide recent historical data on the Kingdom's solar and wind resources. The platform serves as a centralized hub providing stakeholders with the data essential for advancing sustainable energy infrastructure.

By synthesizing ground-based station measurements with advanced satellite-modeled data, the Atlas platform enables developers, researchers, and entities to optimize project siting and significantly reduce uncertainty in energy production estimates. This service catalogue serves as a formal guide to navigating the platform's technical ecosystem and accessing its suite of renewable energy services.

Service User Guide

Home Page

To access Atlas, open the Renewable Resource Atlas platform by clicking on the following link: https://reatlas.energy.gov.sa/en

Once the link is opened, the platform home page will be displayed (Figure 1). From here, users can begin navigating through the platform features and services.

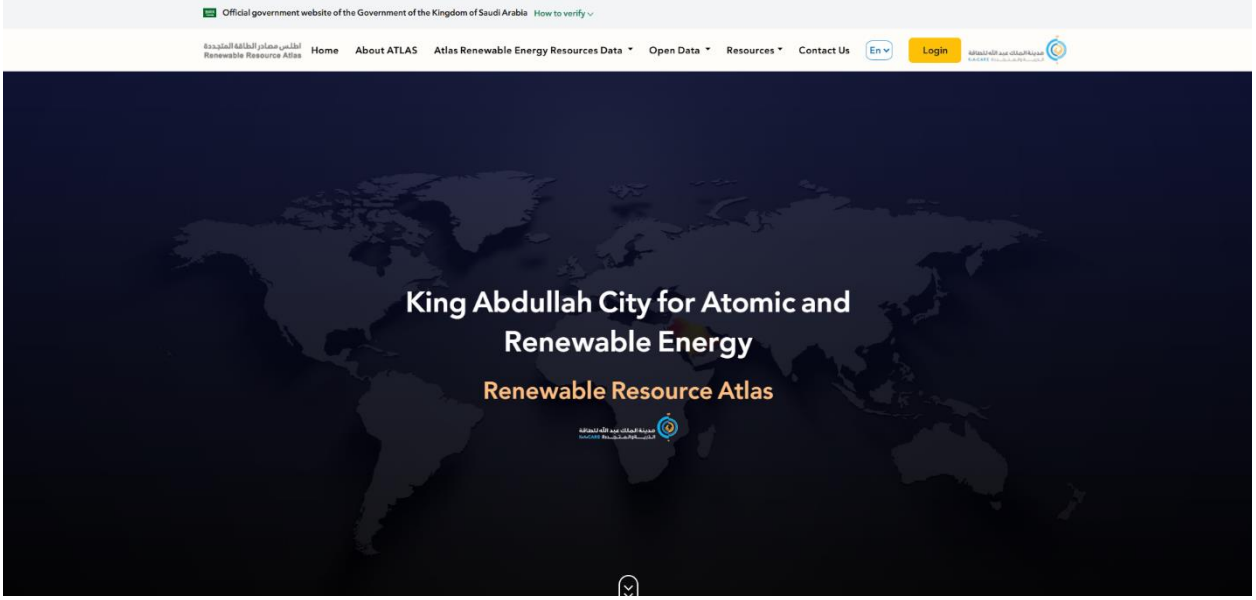


Figure 1: Atlas Home Page

On the home page, look for the expandable arrow located below the main interface. Click on the expandable arrow to reveal the full list of available services. After expanding the menu, users can browse the available services (Figure 2), which include:

- Solar Ground Stations
- Wind Ground Stations
- Solar Irradiance Estimation with Neural Network Algorithm (SIENNA) Model
- Typical Meteorological Year (TMY)

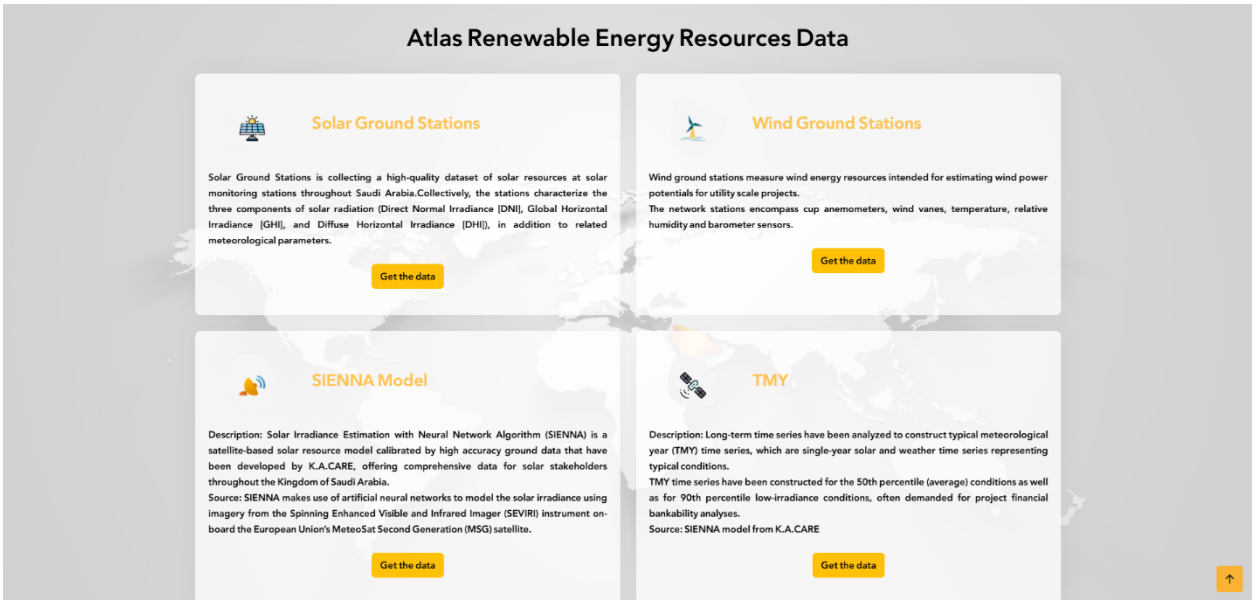


Figure 2: Atlas Renewable Energy Resources Data

About ATLAS

To learn more about the Kingdom's strategic goals for renewable energy and the technical specifications of the monitoring network, navigate to the top navigation bar of the platform.

Locate and click on the "About ATLAS" section (Figure 3).

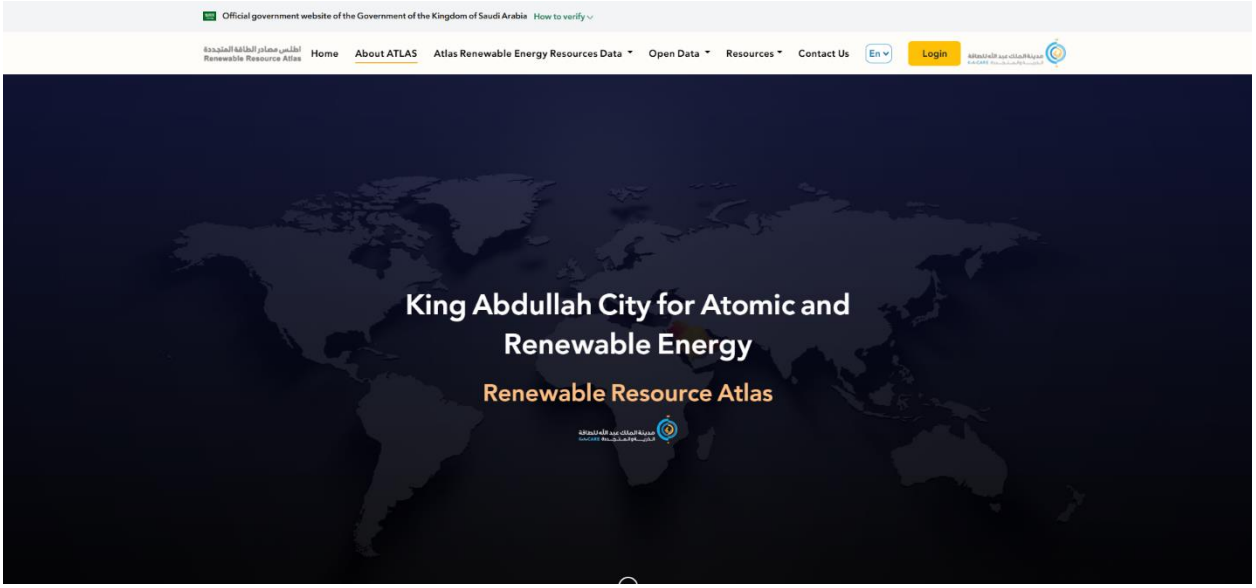


Figure 3: About ATLAS Tab

After clicking, the "About ATLAS" page will open (Figure 4). This page provides information on:

- Why is the Renewable Resource Atlas needed?
- What is contained in the Renewable Resource Atlas?

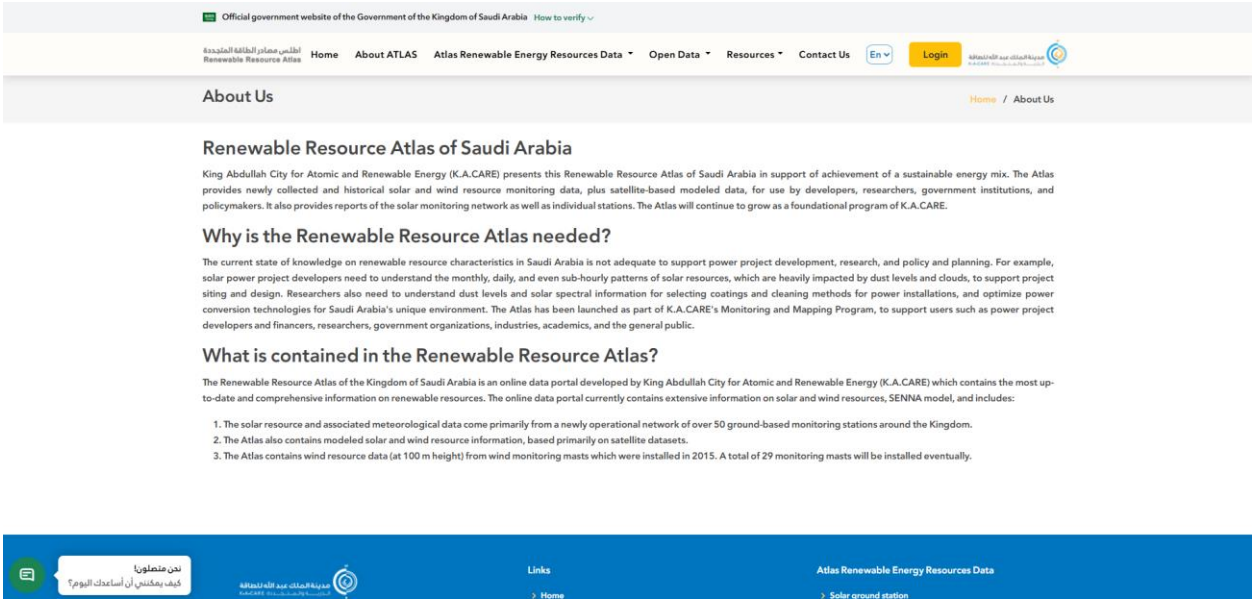


Figure 4: About ATLAS Page

Sign Up

To create a new account, navigate to the top-right corner of the platform and click on the **“Login”** button (Figure 5).

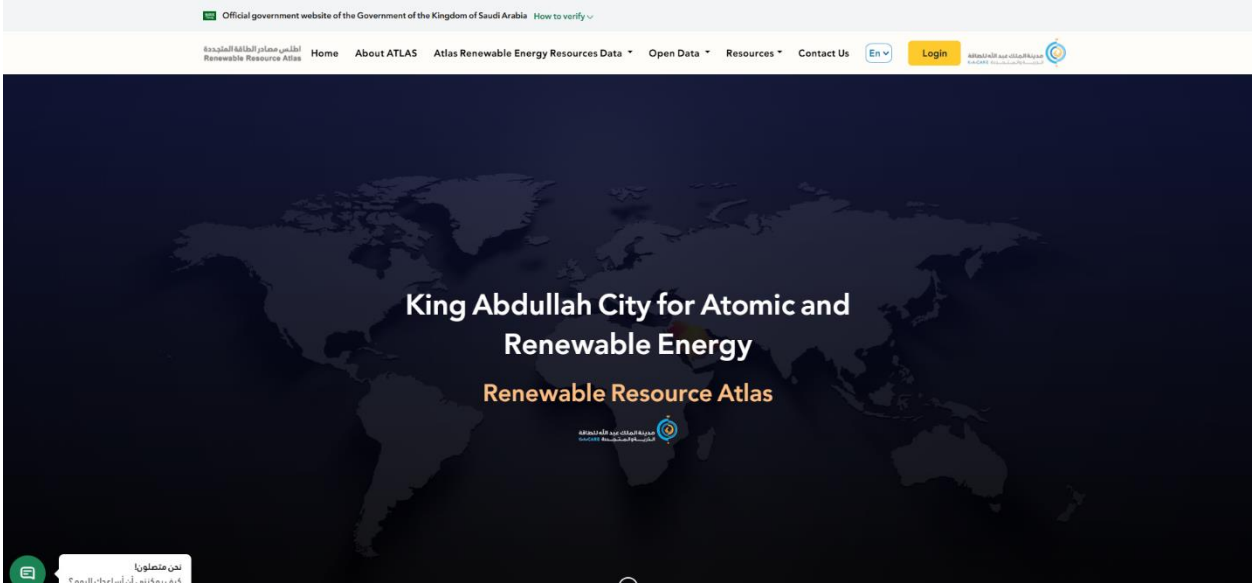


Figure 5: Login Tab

On the login page, click on: “If you don’t have Nafath Account please click Here” (Figure 6).

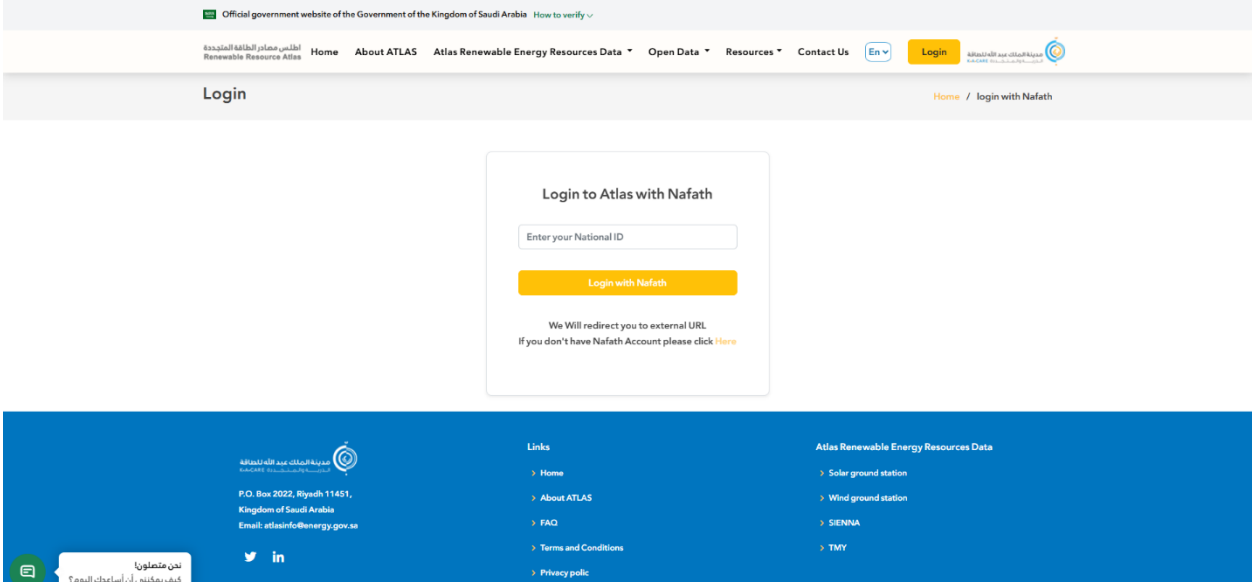


Figure 6: Sign Up Process

Then, click on “Sign up” (Figure 7).

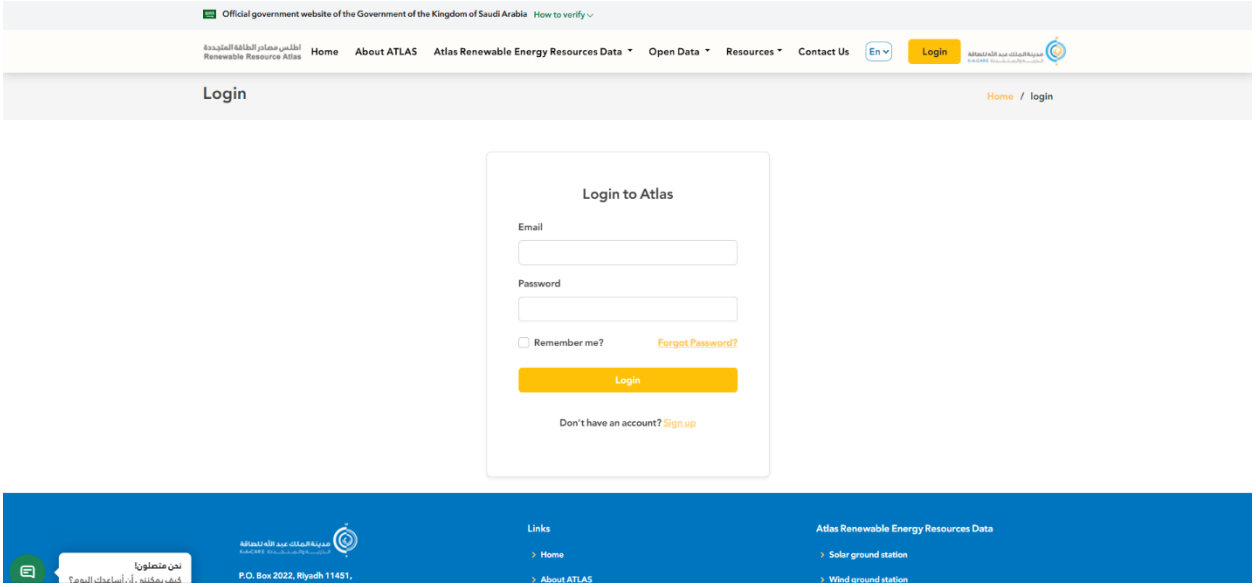


Figure 7: Sign Up Process

Once selected, the registration form page will open. Enter the required information in the registration form fields. Ensure all mandatory fields are completed accurately (Figure 8).

After completing the form, click on the “Register” button to submit the information.

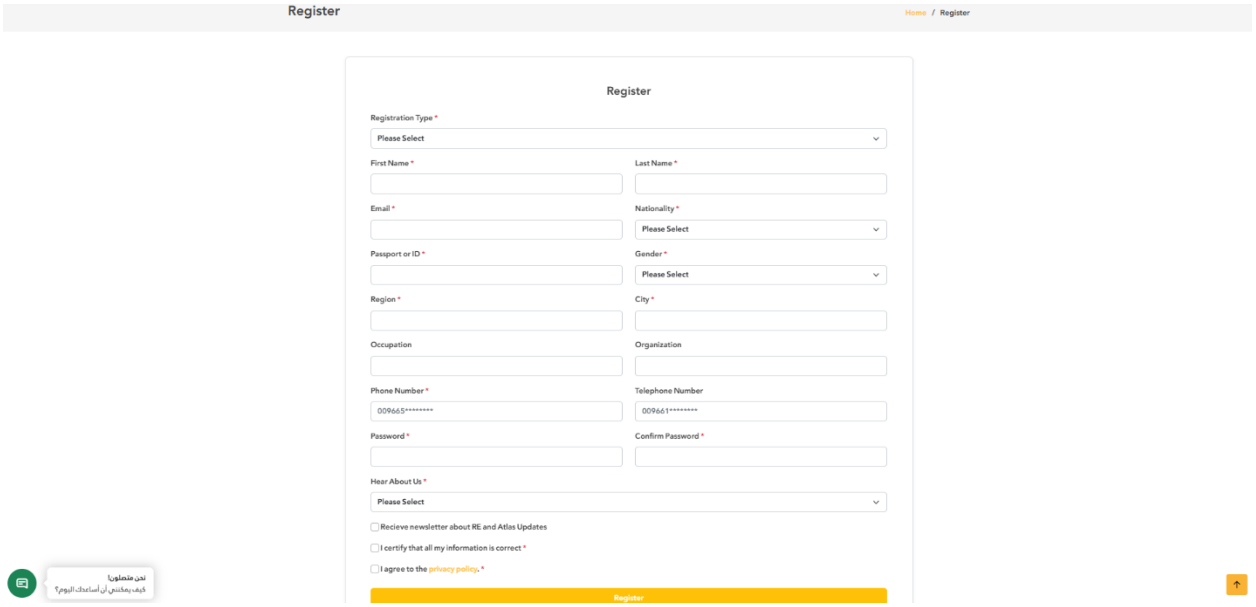


Figure 8: Registration Form

After submission, a verification email will be sent to the registered email address.

Open the email and follow the instructions to activate the account.

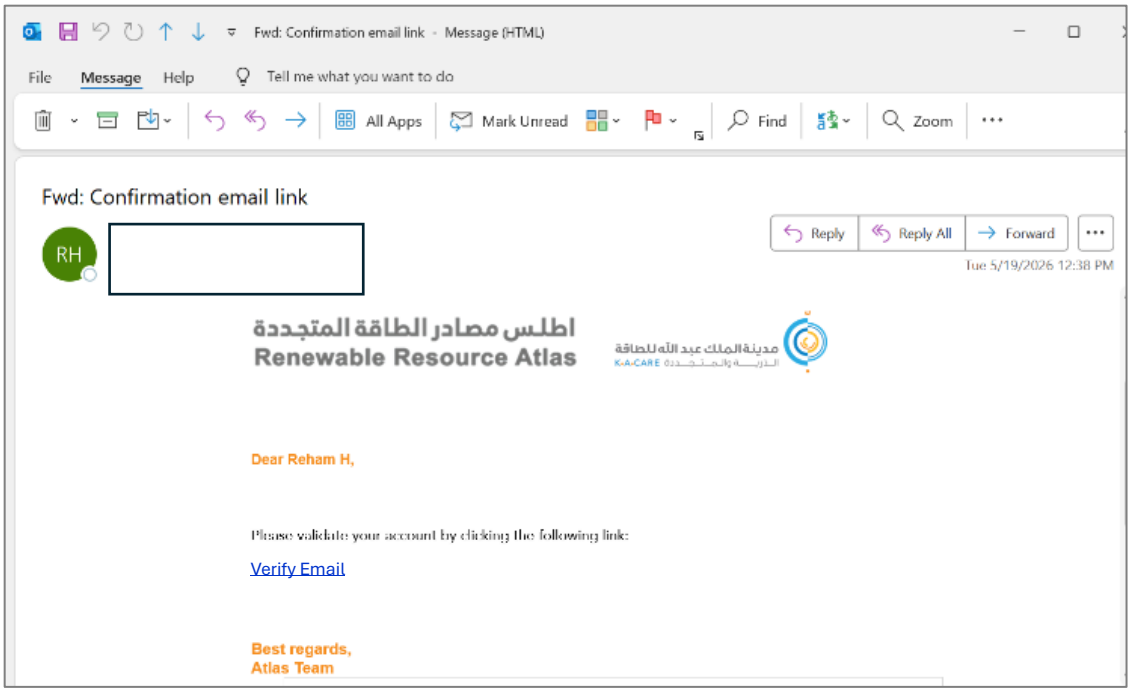


Figure 9: Email verification

Once the email is successfully verified, the account will be activated. The user can now use the account credentials to log in directly to the platform.

Log In

Users can access the Renewable Resource Atlas platform using one of two sign-in methods:

- Nafath (Single Sign-in)
- Email Account

Option 1: Log in via Nafath

Click on the “Login” button located at the top-right corner of the platform (Figure 10).

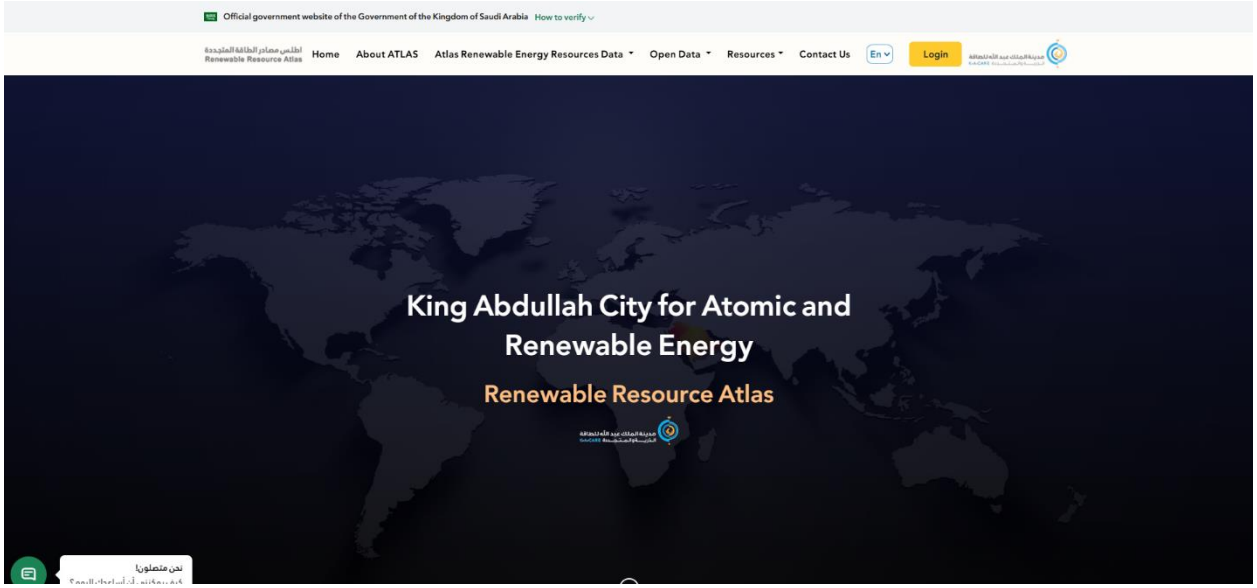


Figure 10: Login Tab

Proceed with the Nafath authentication process as prompted (e.g., via the Nafath mobile application) (Figure 11).

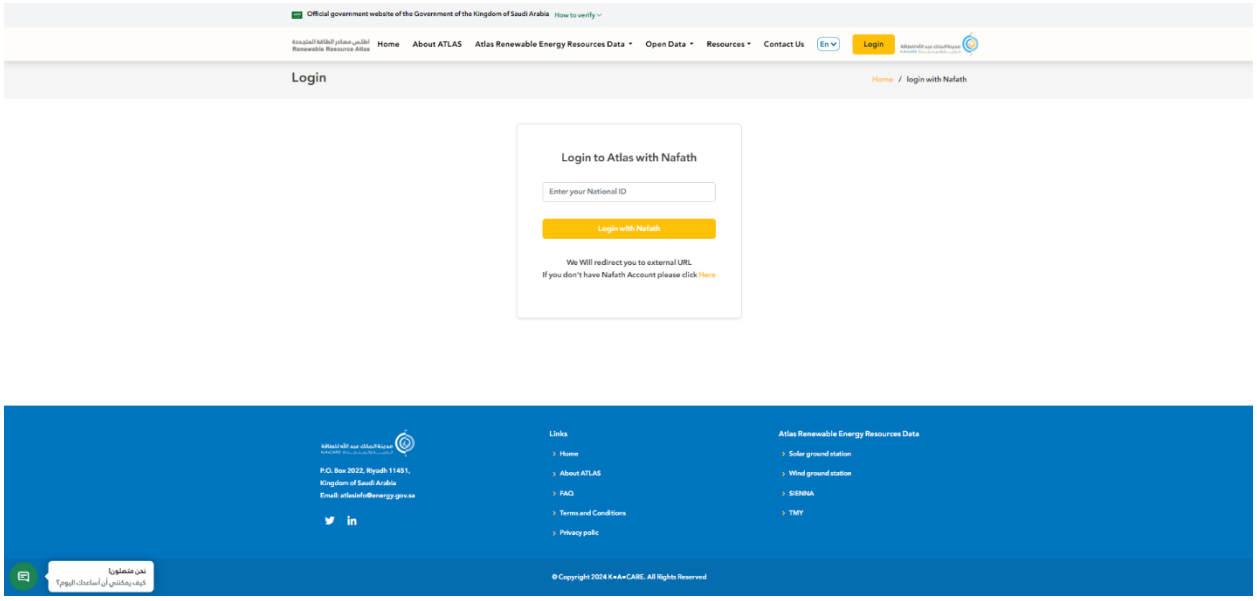


Figure 11: Login via Nafath

Once verification is successful, the user will automatically log in and redirect to the platform.

Option 2: Sign in via email

On the login page, click on the “If you don’t have Nafath Account please click Here” to sign in using an email account (Figure 12).

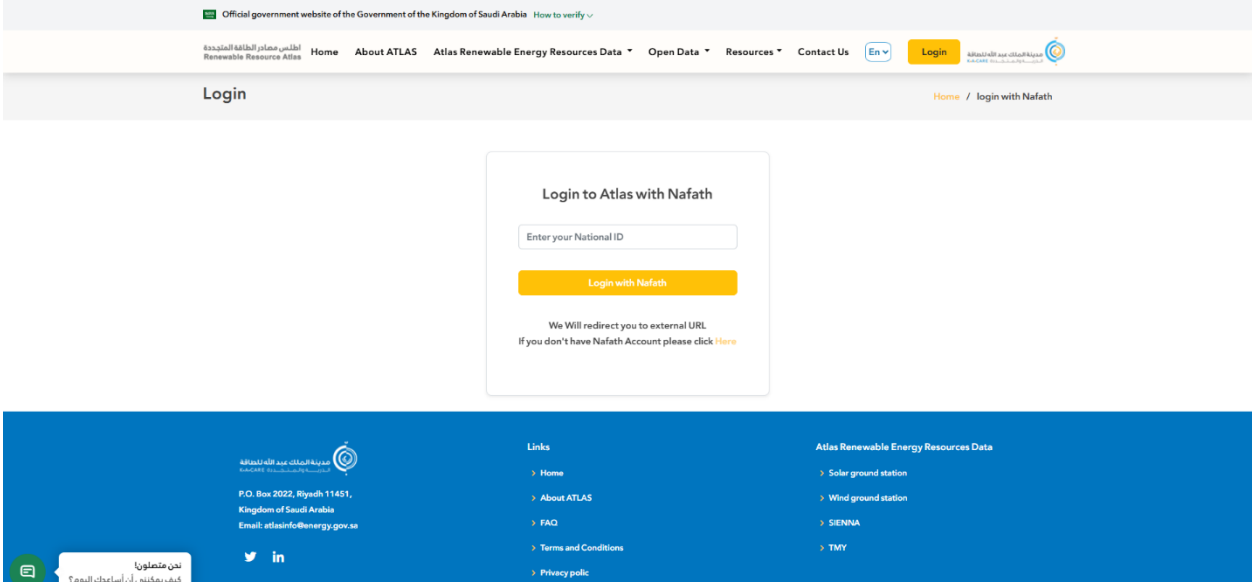


Figure 12: Login via email

Enter the registered email address and password in the provided fields. Then, click on the “Login” button to proceed (Figure 13).

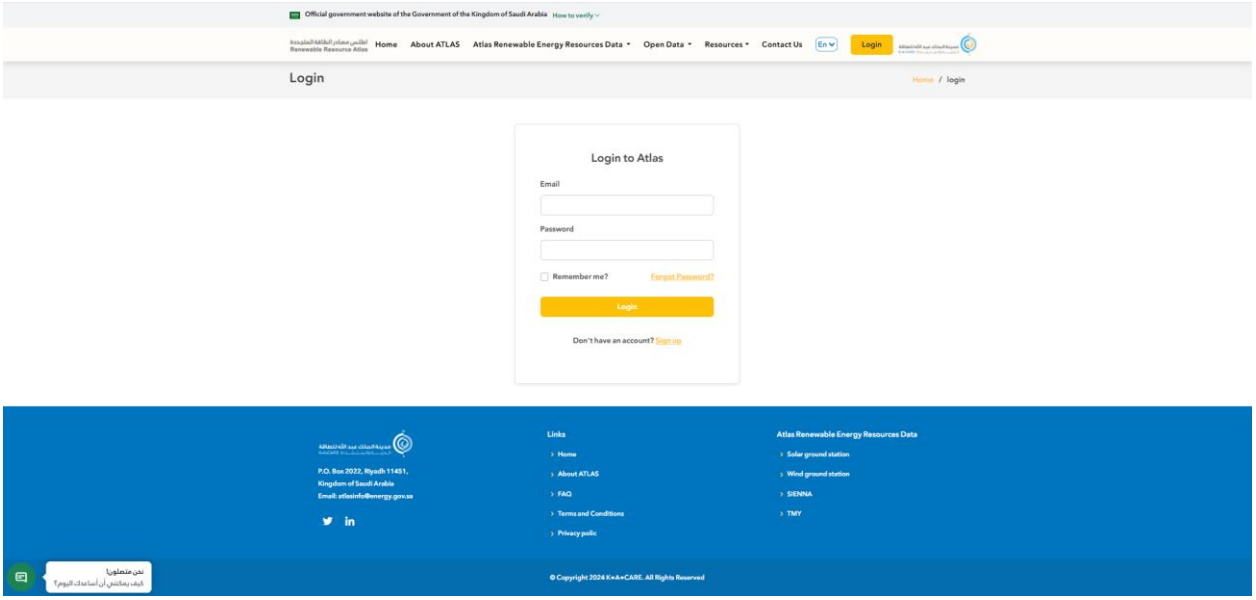


Figure 13: Login via email

An OTP (One-Time Password) will be sent to the registered email address. Enter the received code in the designated field to complete the login process (Figure 14).

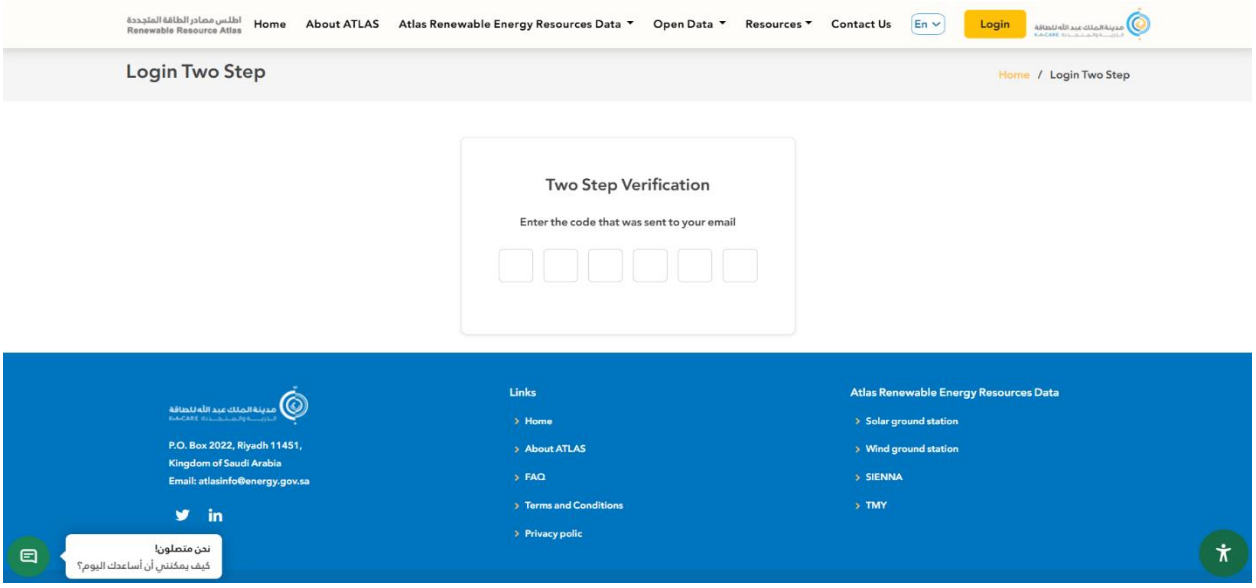


Figure 14: Two Step Verification Process

After successful verification, the user will be granted access to the Renewable Resource Atlas services.

Atlas Renewable Energy Resource Data

The Renewable Resource Atlas platform provides access to Atlas Renewable Energy Resource Data through the toolbar located at the top of the browser (Figure 15).

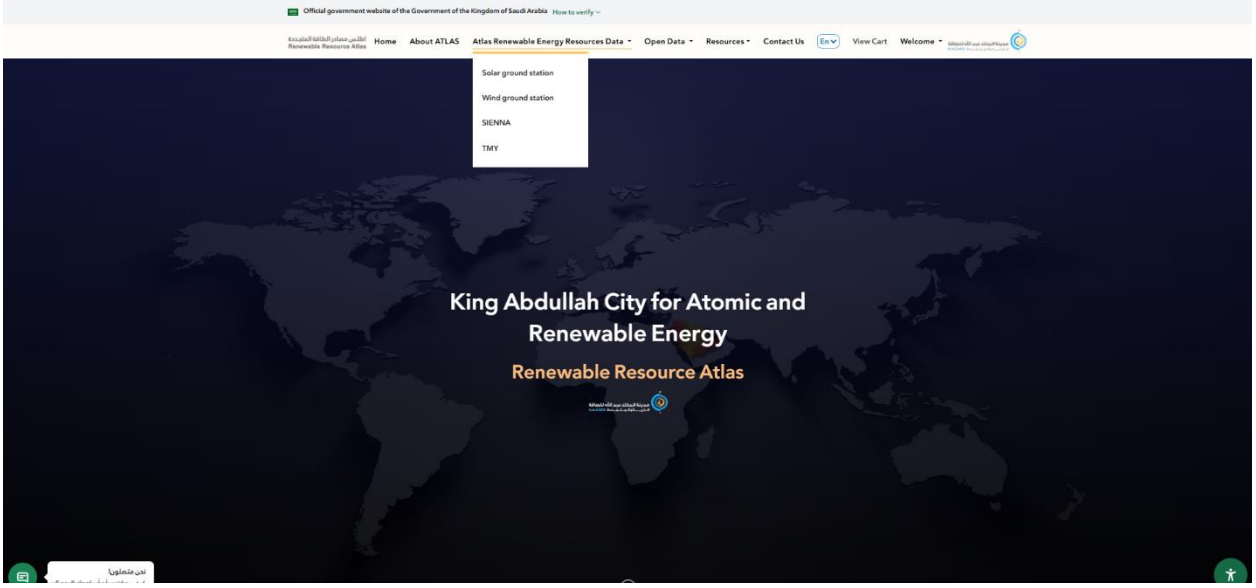


Figure 15: Atlas Renewable Energy Resource Data Tab

The following services are available under this section:

- Solar Ground Stations Service
- Wind Ground Stations Service
- SIENNA
- TMY

i. Solar Ground Stations Service

The Solar Ground Stations Service provides high-quality datasets of solar resources collected from monitoring stations across Saudi Arabia. The stations measure the following solar radiation components Direct Normal Irradiance (DNI), Global Horizontal Irradiance (GHI), and Diffuse Horizontal Irradiance (DHI), in addition to related meteorological parameters.

The table below demonstrates the parameters calculated within this service.

Basic Solar Parameters	Advanced Solar Parameters	
Air Temperature	Downwelling Infrared	Wind speed at 10m (std dev)
Wind Direction at 3m	Horizontal Visibility	Upwelling Infrared
Wind Direction at 3m (std dev)	Peak Wind Direction at 10m	Upwelling Shortave
Wind speed at 3m	Peak Wind Direction at 3m	
Wind speed at 3m (std dev)	Peak Wind Speed at 10m	
Azimuth Angle	Dewpoint Temperature	
Relative Humidity	Global PAR	
Barometric Pressure	Global Tilt Irradiance	
Diffuse Horizontal Irradiance (DHI)	Global UVA	
Direct Normal Irradiance (DNI)	Global UVB	
Global Horizontal Irradiance (GHI)	Precipitation	
Zenith Angle	Wind Direction at 10m	
Peak Wind Speed at 3m	Wind Speed at 10m	

* Reference: Atlas website

To begin the data request process, click on “Request Service” (Figure 16).

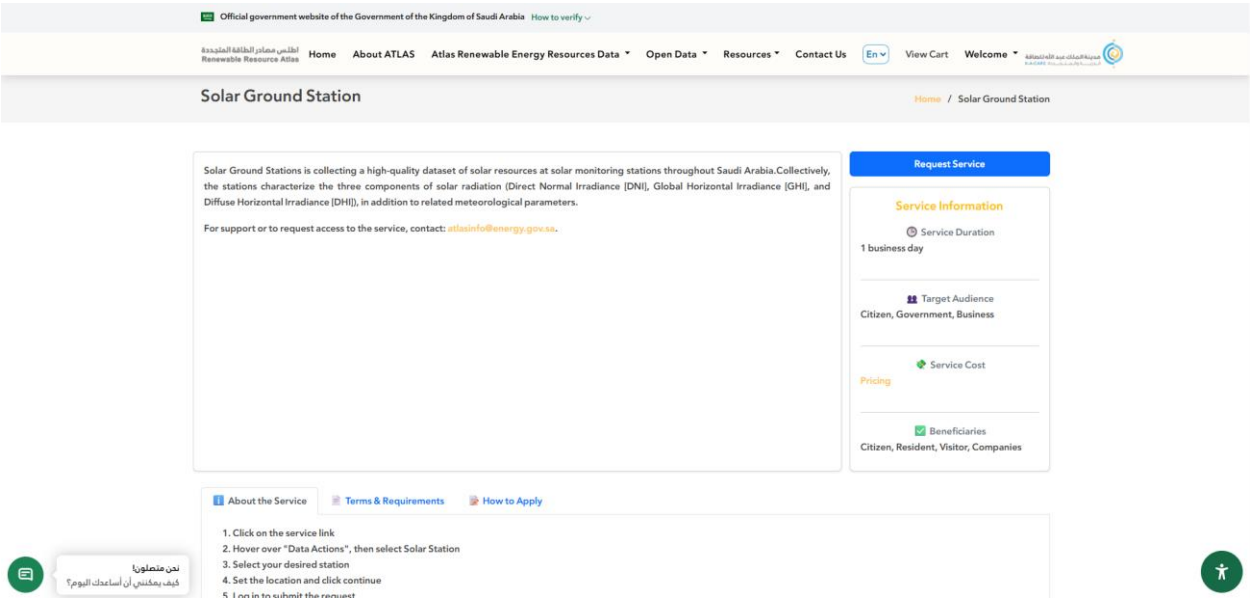


Figure 16: Request Service

On this page, the user can explore the pricing details by navigating to Service Cost section, clicking on “Pricing” within that section to review the full breakdown of fees before proceeding (Figure 17).

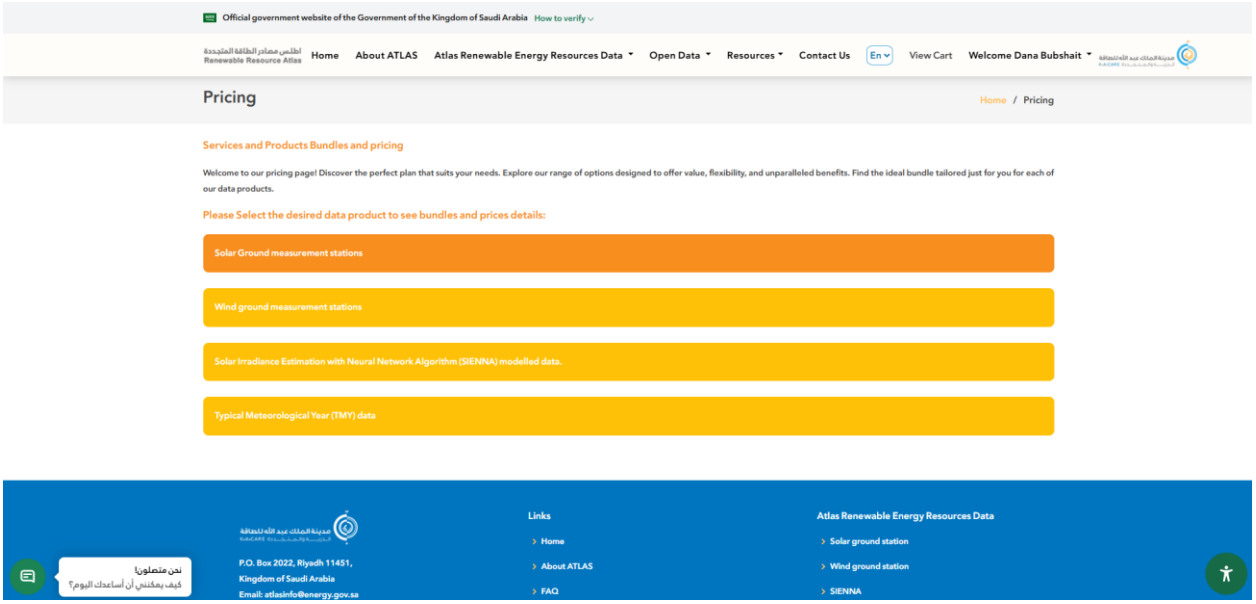


Figure 17: Pricing Details

The service page will open where the user is able to select the station name and choose the required data parameters (Figure 18).

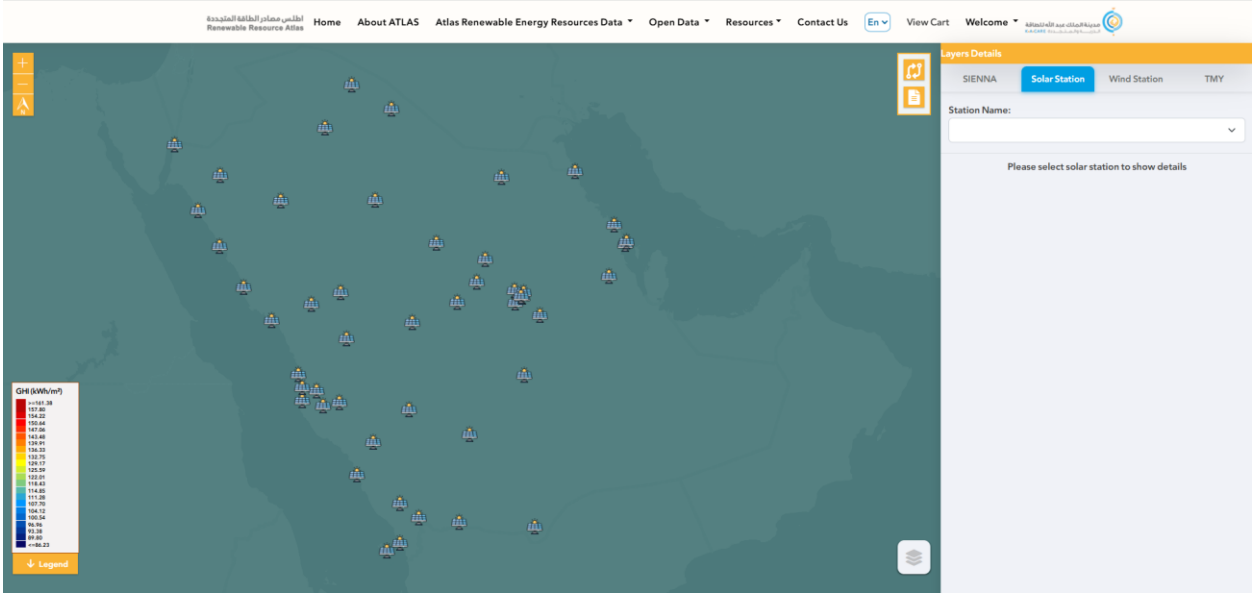


Figure 18: Solar Station Selection

After selecting a station, detailed information about the station will be displayed (Figure 19).

Figure 19: Solar Station Details

Click on “Dashboard” to (Figure 20):

- Define aggregation level
- Select time range
- Customize parameters
- Display charts

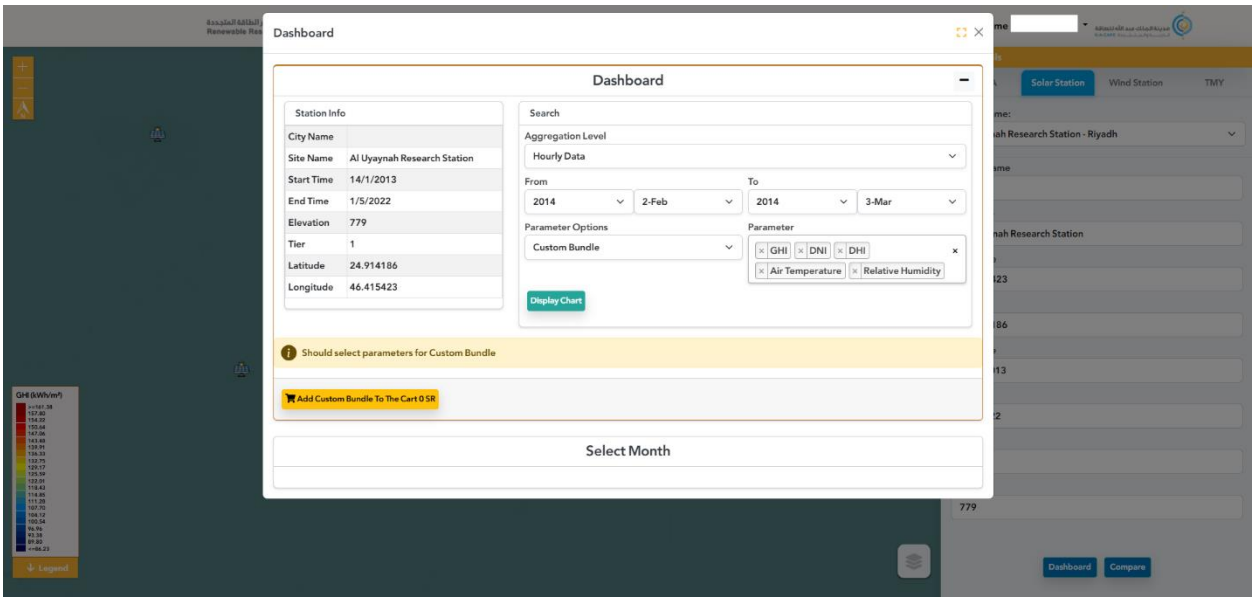


Figure 20: Dashboard Configuration

The user can either view the data through dashboards within the platform or proceed with downloading the dataset (Figure 21).

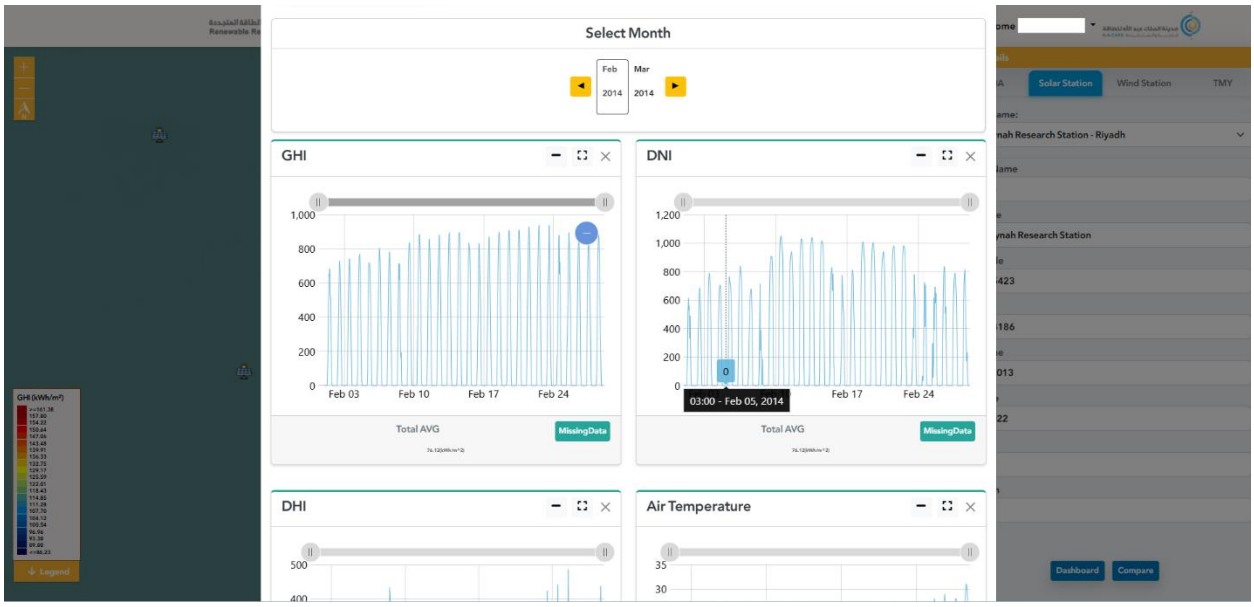


Figure 21: Display Charts

Once the data configuration is complete, submit the request by “Add Custom Bundle to Cart” and the request will be added to the cart (Figure 22).

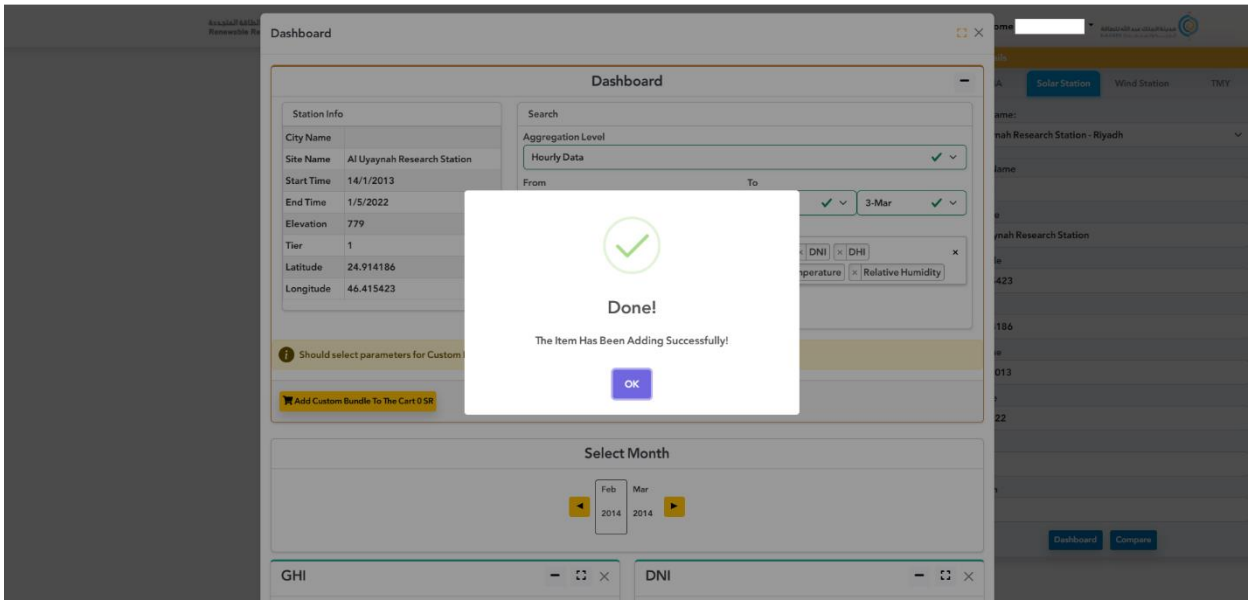


Figure 22: Add Item to Cart

Proceed to “View Cart” in the top-right corner of the browser to complete the payment process through the “Checkout” button (Figure 23).

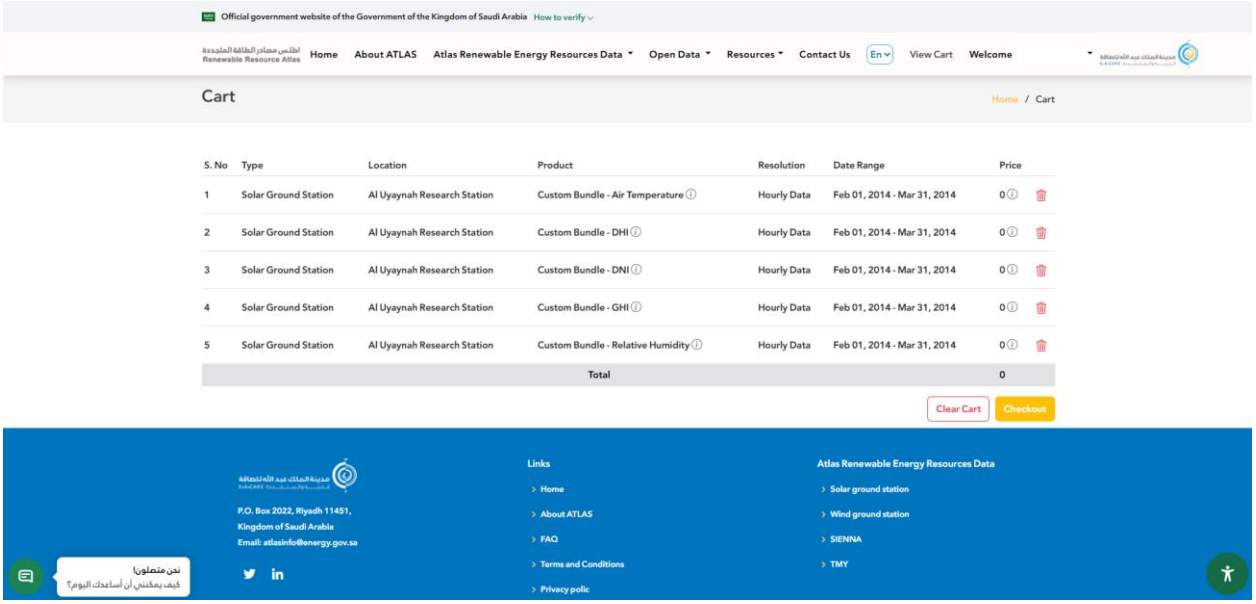


Figure 23: View Cart

On the orders page, the user can view list of items requested. Click on ⓘ icon next to the product name to view the specific attribute order details (Figure 24).

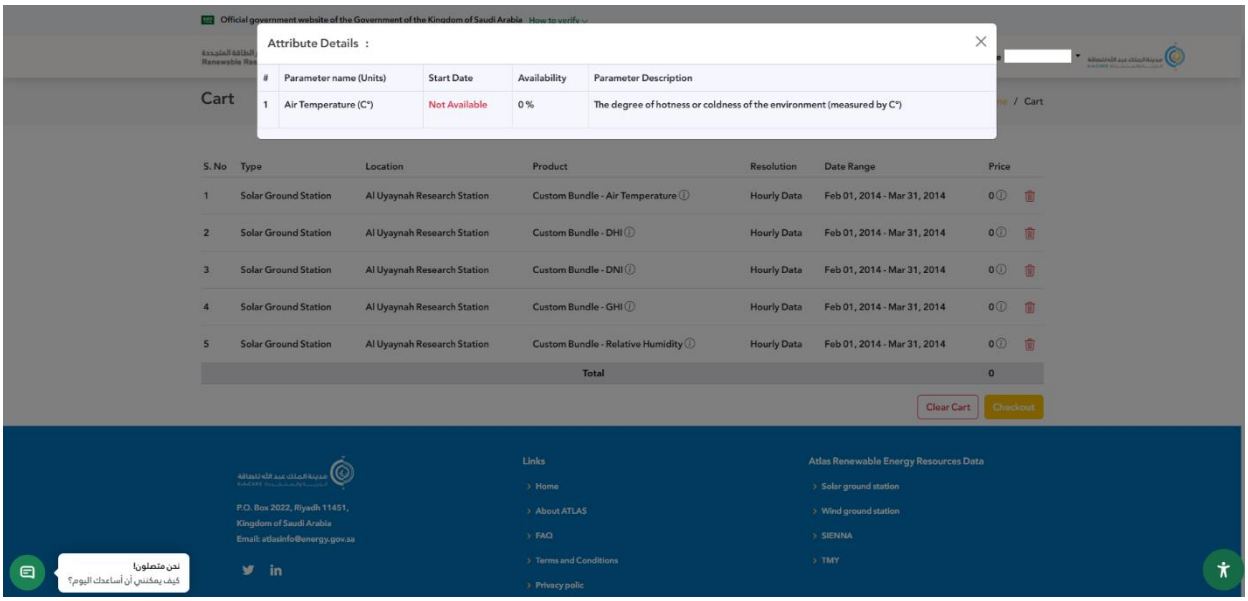


Figure 24: View Order Details

Click on ⓘ icon next to the price to view a breakdown of cost details (Figure 25).

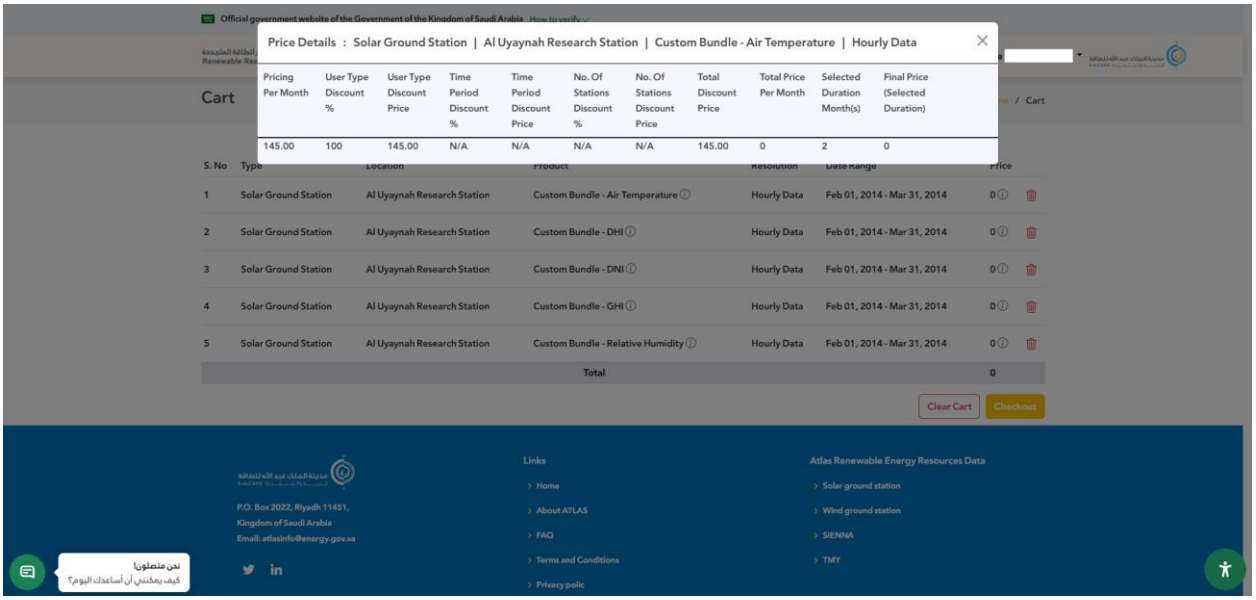


Figure 25: View Price Details

To proceed with confirming the order, click on “Checkout”. A popup message will appear to verify the user request (Figure 26).

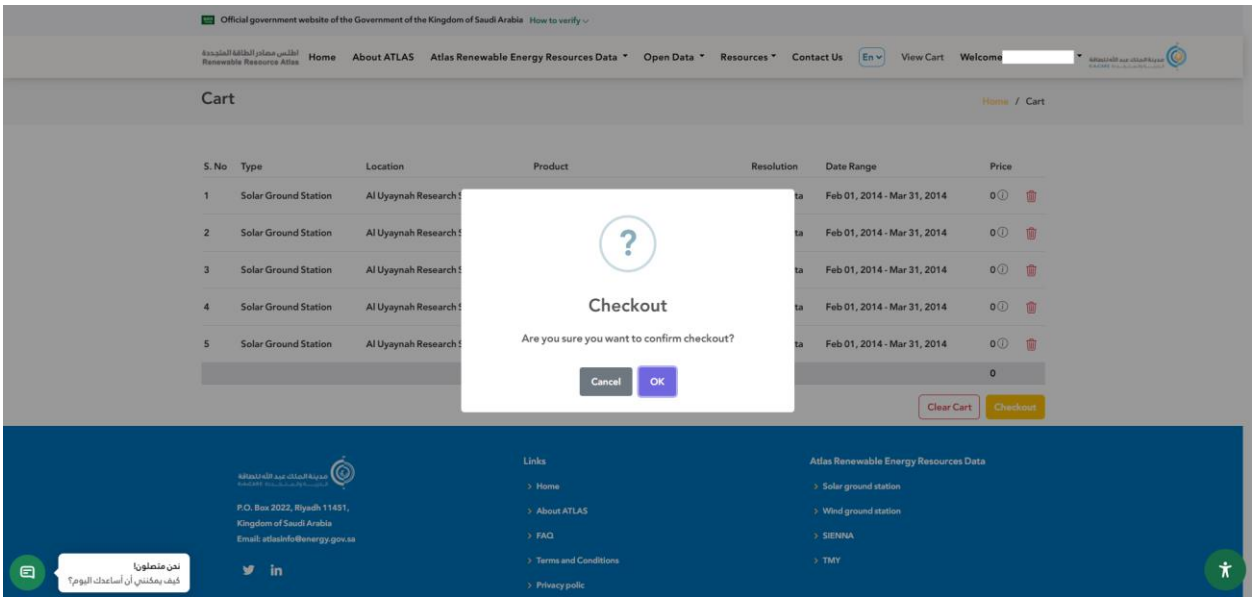


Figure 26: Checkout Process

Once verified, the user can view the quotation document (Figure 27), then proceed to the next step to place the order by clicking “Next Step”.

Figure 27: Order Quotation

The user reviews the agreement and checks the box to agree and process the order (Figure 28).

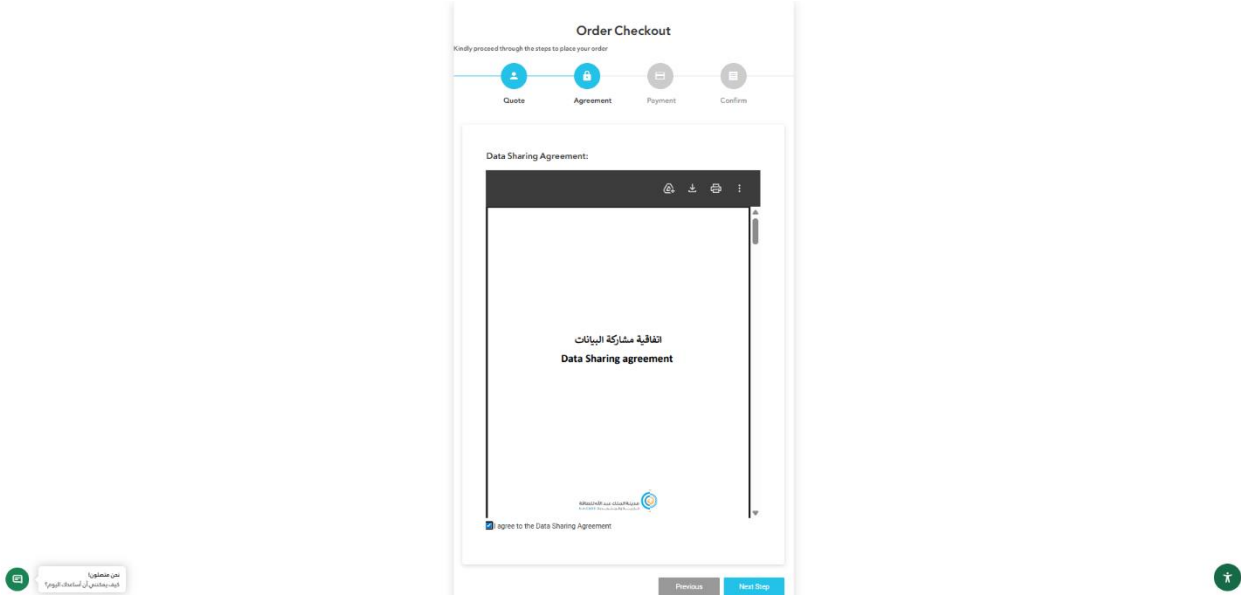


Figure 28: Data Sharing Agreement

The user shall follow the on-screen payment instructions (Figure 29).

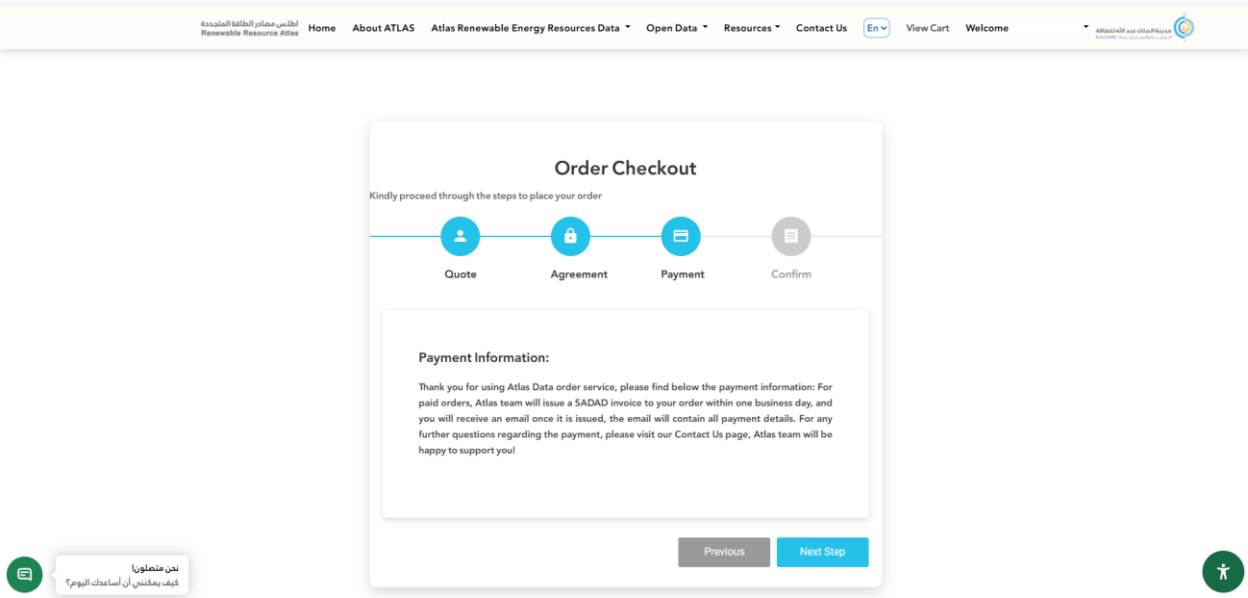


Figure 29: Payment Process

Review the final order details and click on “Submit” (Figure 30).

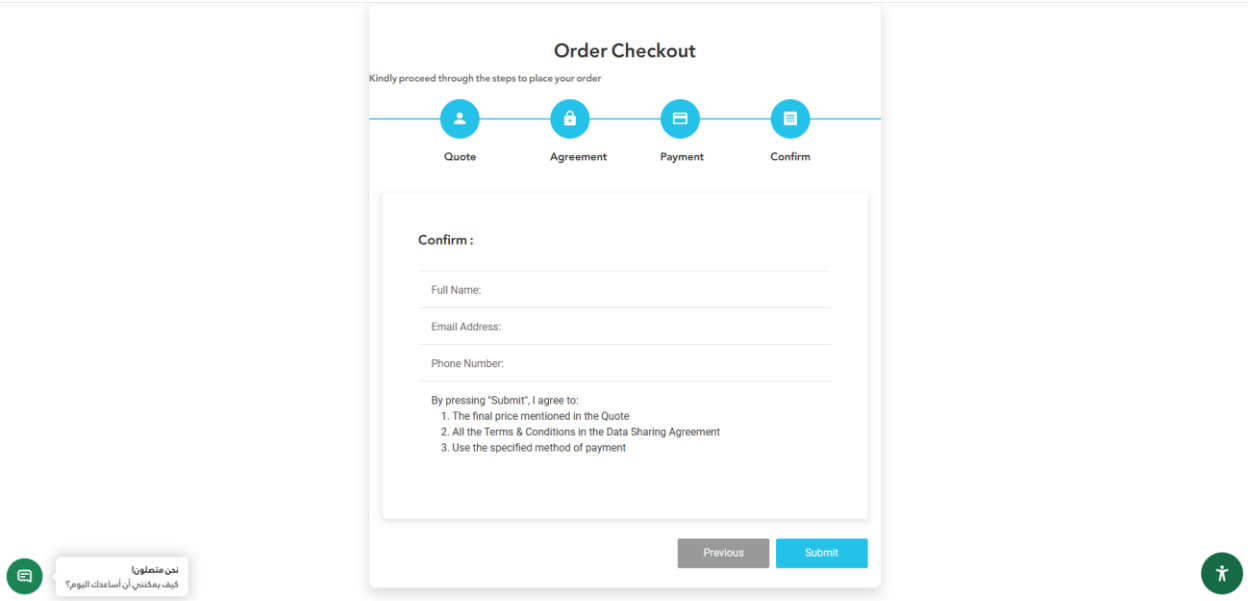


Figure 30: Order Confirmation

Once the order request is approved, locate the automated email sent to the user email inbox. This email confirms that the order is ready to be downloaded (Figure 31).

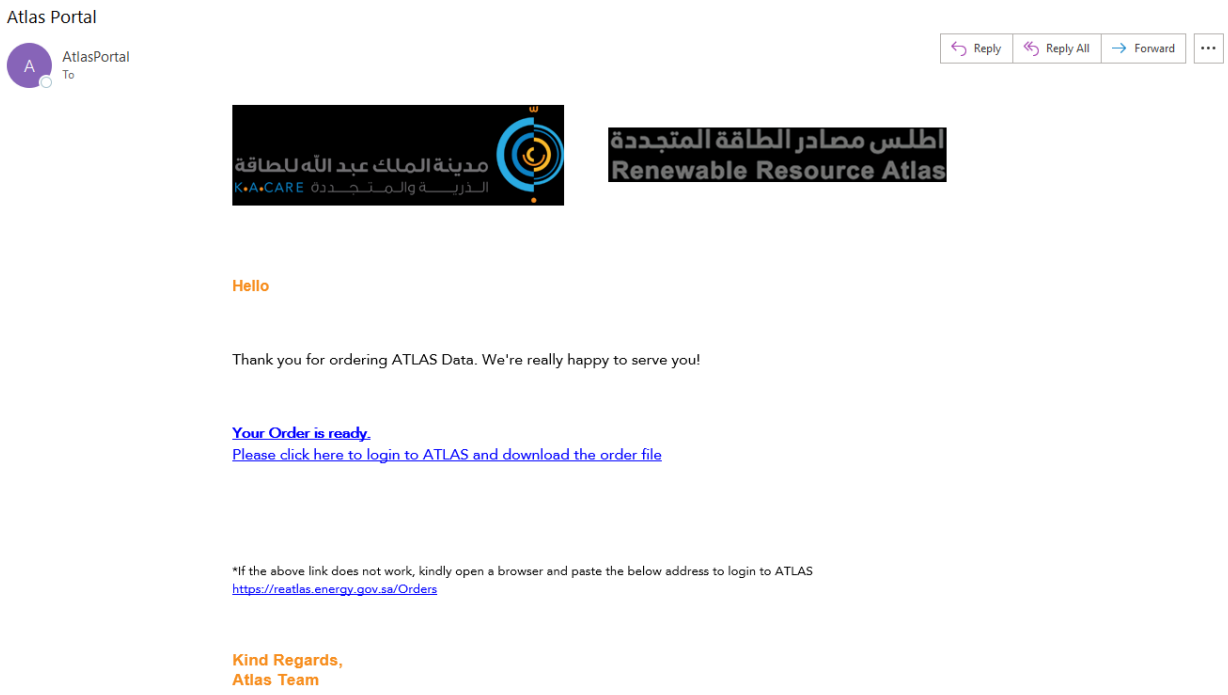


Figure 31: Approved Request Email

Click the access link provided within the email body, which will open the platform in the web browser. Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 32).

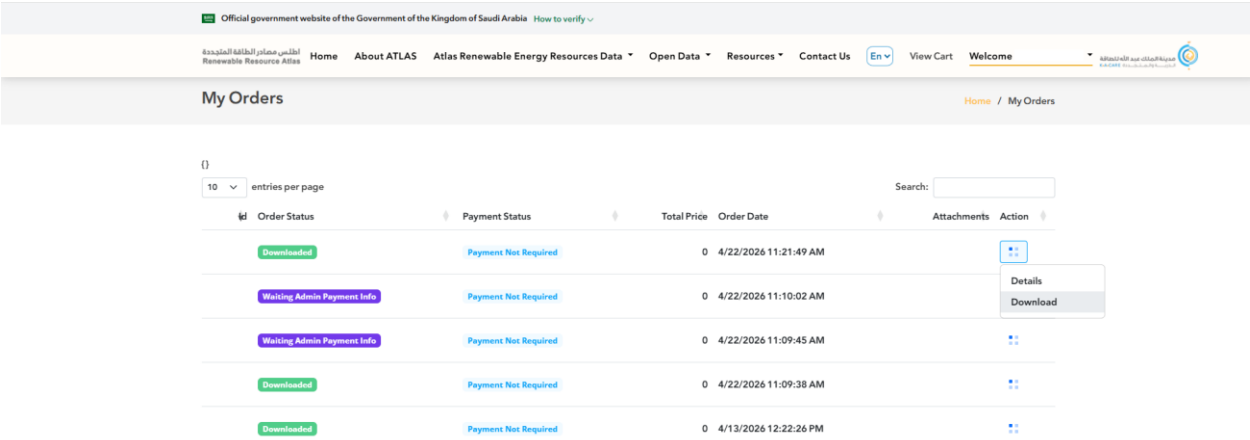


Figure 32: Download Menu

Alternatively, navigate to the top-right corner of the browser window and click on the Profile tab, then “My Orders” tab (Figure 33).

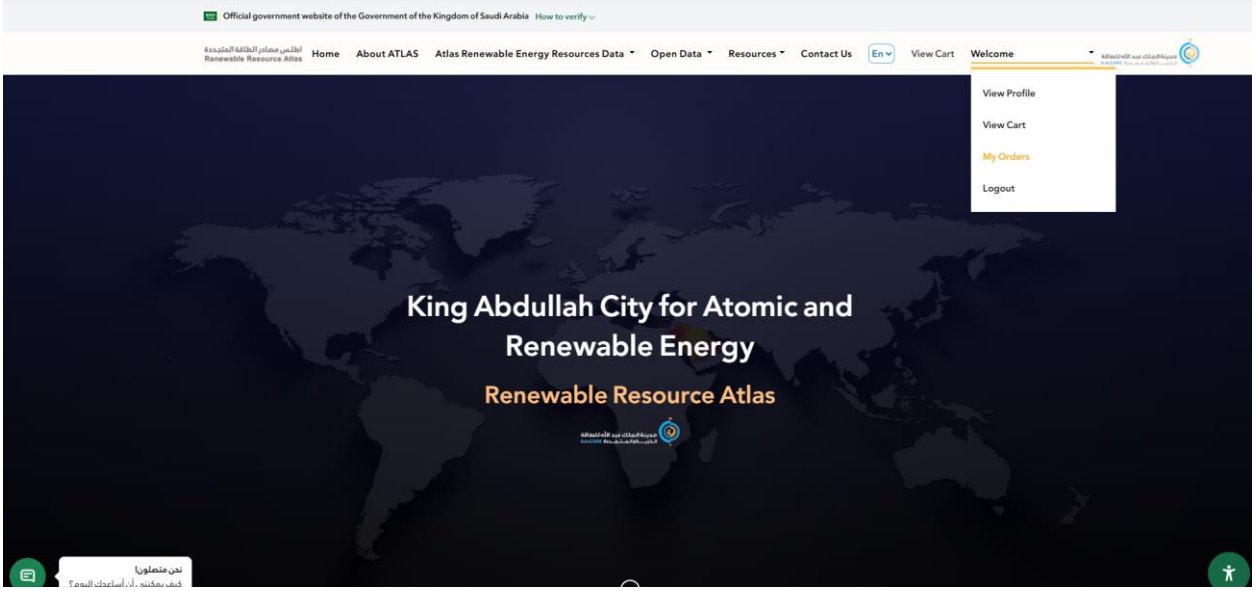


Figure 33: My Orders Tab

Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 34).

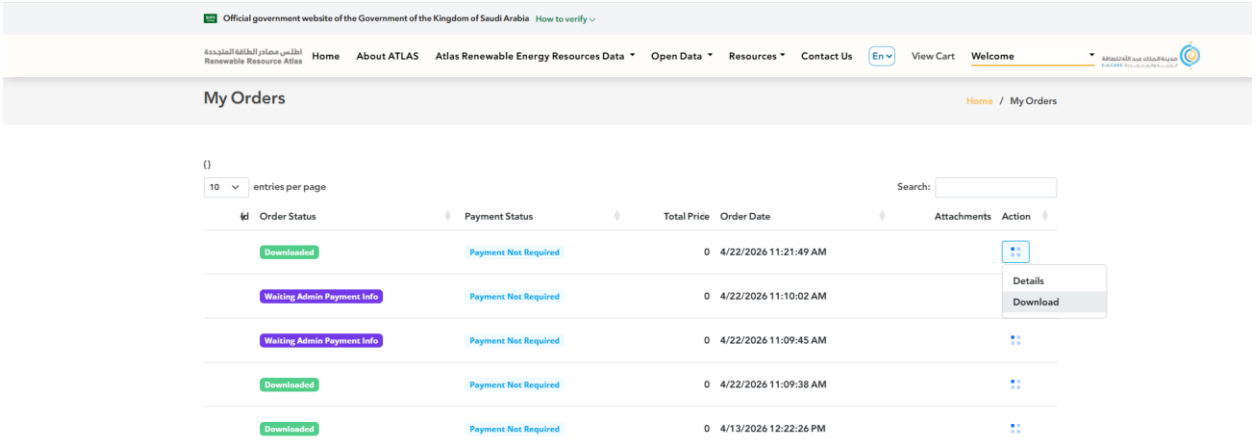
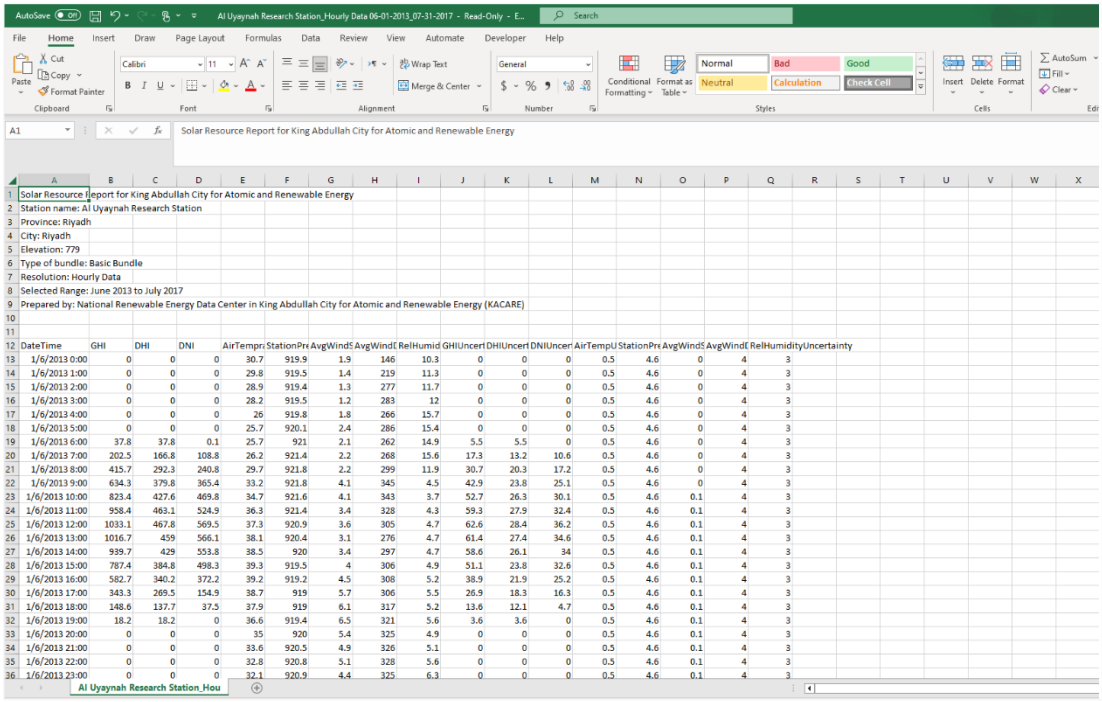


Figure 34: Download Menu

Then, the dataset becomes available for download in CSV format (Figure 35).



Solar Resource Report for King Abdullah City for Atomic and Renewable Energy
Station name: Al Uyaynah Research Station
Province: Riyadh
City: Riyadh
Elevation: 779
Type of bundle: Basic Bundle
Resolution: Hourly Data
Selected Range: June 2013 to July 2017
Prepared by: National Renewable Energy Data Center in King Abdullah City for Atomic and Renewable Energy (KACARE)

DateTime	GHI	DHI	DNI	AirTempr	StationPre	AvgWindS	AvgWind	RelHumid	GHIUncert	DHIUncert	DNIUncert	AirTempU	StationPre	AvgWindS	AvgWind	RelHumidityUncertainty
1/6/2013 0:00	0	0	0	30.7	919.9	1.9	146	10.3	0	0	0	0.5	4.6	0	4	3
1/6/2013 1:00	0	0	0	29.8	919.5	1.4	219	11.3	0	0	0	0.5	4.6	0	4	3
1/6/2013 2:00	0	0	0	28.9	919.4	1.3	277	11.7	0	0	0	0.5	4.6	0	4	3
1/6/2013 3:00	0	0	0	28.2	919.5	1.2	283	12	0	0	0	0.5	4.6	0	4	3
1/6/2013 4:00	0	0	0	26	919.8	1.8	266	15.7	0	0	0	0.5	4.6	0	4	3
1/6/2013 5:00	0	0	0	25.7	920.1	2.4	286	15.4	0	0	0	0.5	4.6	0	4	3
1/6/2013 6:00	37.8	37.8	0.1	25.7	921	2.1	262	14.9	5.5	5.5	0	0.5	4.6	0	4	3
1/6/2013 7:00	202.5	166.8	108.8	26.2	921.4	2.2	268	15.6	17.3	13.2	10.6	0.5	4.6	0	4	3
1/6/2013 8:00	415.7	292.3	240.8	29.7	921.8	2.2	299	11.9	30.7	20.3	17.2	0.5	4.6	0	4	3
1/6/2013 9:00	634.3	379.8	365.4	33.2	921.8	4.1	345	4.5	42.9	23.8	25.1	0.5	4.6	0	4	3
1/6/2013 10:00	823.4	427.6	469.8	34.7	921.6	4.1	343	3.7	52.7	26.3	30.1	0.5	4.6	0.1	4	3
1/6/2013 11:00	958.4	463.1	524.9	36.3	921.4	3.4	328	4.3	59.3	27.9	32.4	0.5	4.6	0.1	4	3
1/6/2013 12:00	1033.1	467.8	569.5	37.3	920.9	3.6	305	4.7	62.6	28.4	36.2	0.5	4.6	0.1	4	3
1/6/2013 13:00	1016.7	459	566.1	38.1	920.4	3.1	276	4.7	61.4	27.4	34.6	0.5	4.6	0.1	4	3
1/6/2013 14:00	939.7	429	553.8	38.5	920	3.4	297	4.7	58.6	26.1	34	0.5	4.6	0.1	4	3
1/6/2013 15:00	787.4	384.8	498.3	39.3	919.5	4	306	4.9	51.1	23.8	32.6	0.5	4.6	0.1	4	3
1/6/2013 16:00	582.7	340.2	372.2	39.2	919.2	4.5	308	5.2	38.9	21.9	25.2	0.5	4.6	0.1	4	3
1/6/2013 17:00	343.3	269.5	154.9	38.7	919	5.7	306	5.5	26.9	18.3	16.3	0.5	4.6	0.1	4	3
1/6/2013 18:00	148.6	137.7	37.5	37.9	919	6.1	317	5.2	13.6	12.1	4.7	0.5	4.6	0.1	4	3
1/6/2013 19:00	18.2	18.2	0	36.6	919.4	6.5	321	5.6	3.6	3.6	0	0.5	4.6	0.1	4	3
1/6/2013 20:00	0	0	0	35	920	5.4	325	4.9	0	0	0	0.5	4.6	0.1	4	3
1/6/2013 21:00	0	0	0	33.6	920.5	4.9	326	5.1	0	0	0	0.5	4.6	0.1	4	3
1/6/2013 22:00	0	0	0	32.8	920.8	5.1	328	5.6	0	0	0	0.5	4.6	0.1	4	3
1/6/2013 23:00	0	0	0	32.1	920.9	4.4	325	6.3	0	0	0	0.5	4.6	0.1	4	3

Figure 35: Downloaded Dataset

In the Atlas platform, there is a feature that allows users to compare two stations and analyze their behavior. To begin using this service, click on “Request Service” (Figure 36).

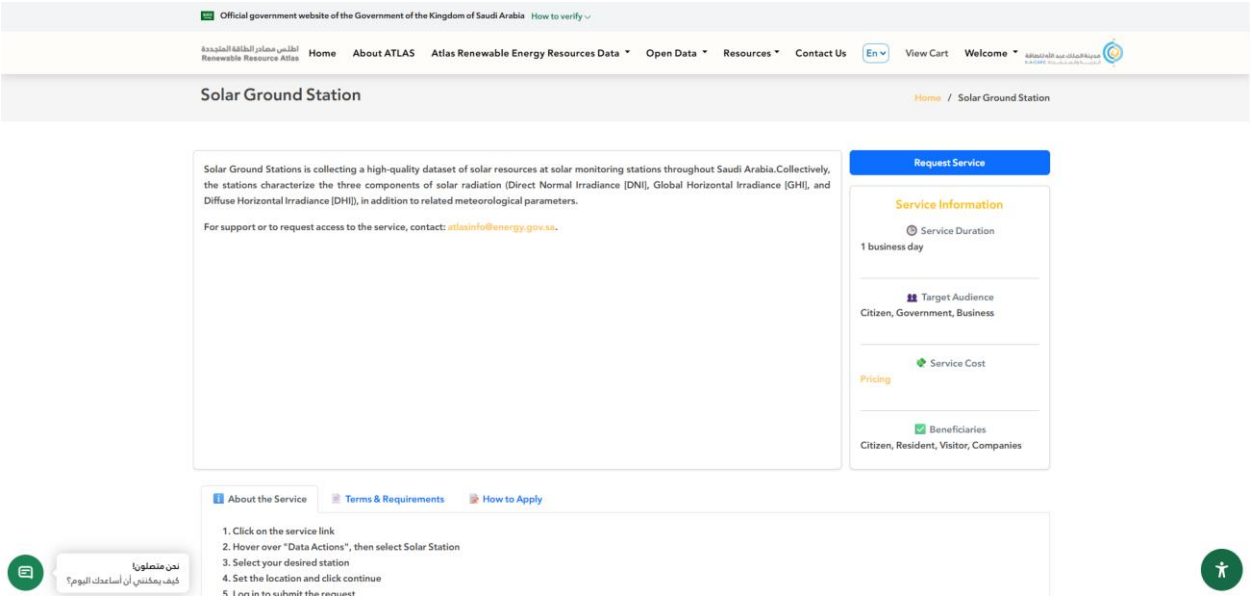


Figure 36: Request Service

Select the first station name, then click on “Compare” to select the second station from the map (Figure 37).

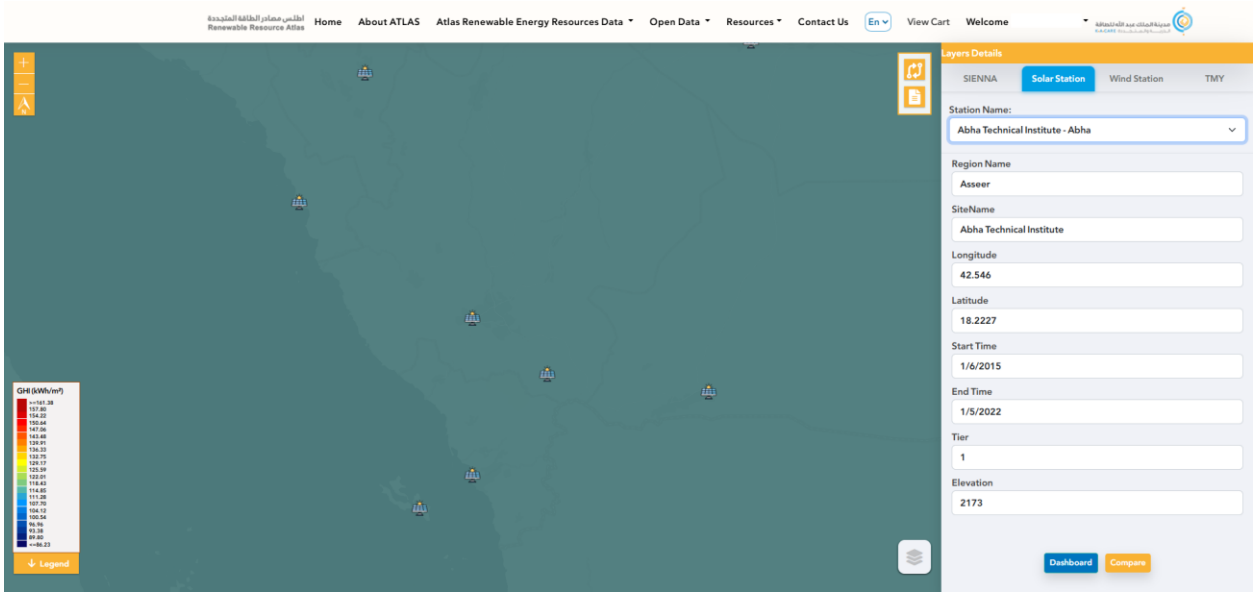


Figure 37: Compare Process

Afterwards both stations datasets are available for comparison, click on “Start Compare” (Figure 38).

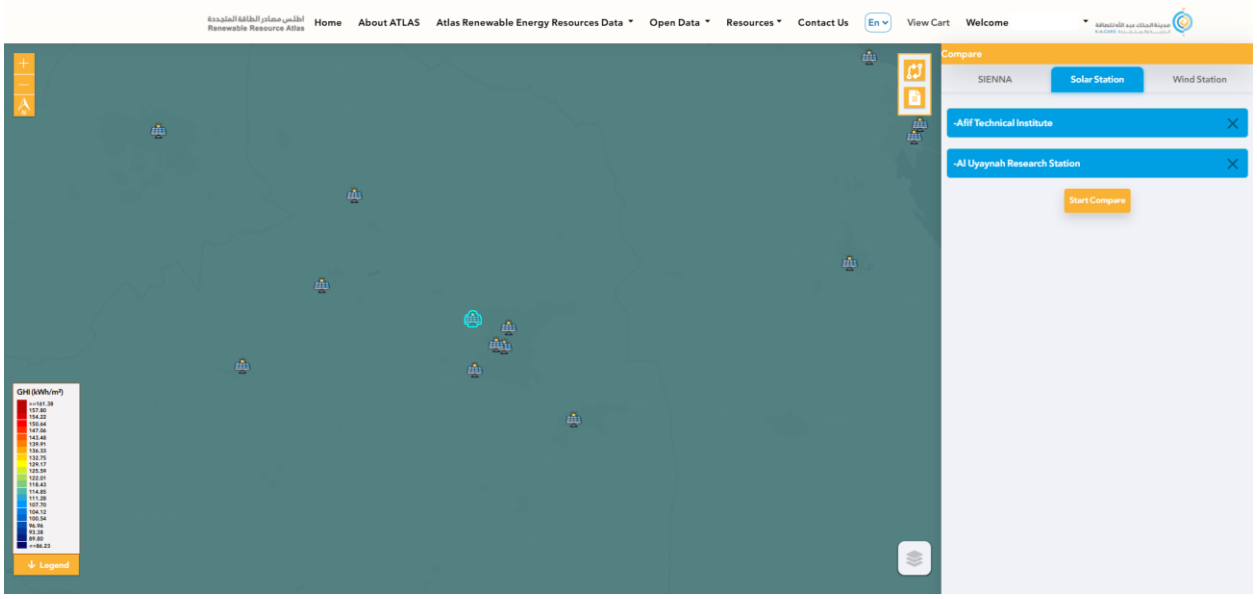


Figure 38: Start Compare Process

Then the “Dashboard” configuration open, where the user can (Figure 39):

- Define aggregation level
- Select time range
- Customize parameters
- Display charts

The data can only be viewed through the comparison feature and not downloaded.

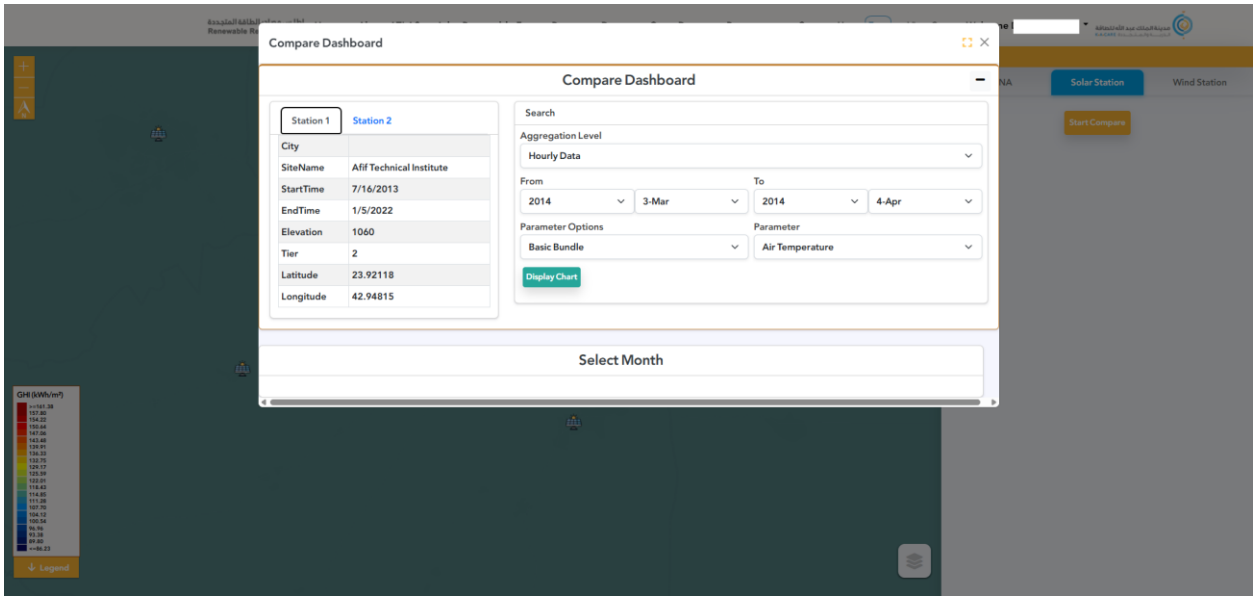


Figure 39: Dashboard Configuration

ii. Wind Ground Stations Service

The Wind Ground Stations Service measures wind energy resources to support wind power potential assessment for utility-scale projects. The monitoring stations include cup anemometers, wind vanes, temperature sensors, relative humidity sensors, and barometer sensors.

The table below demonstrates the parameters calculated within this service.

All Wind Parameters	
Air Temperature	Wind Speed at 40m (2)
Wind Direction at 37m	Wind Speed at 60m
Wind Direction at 80m	Wind Speed at 80m
Wind Direction at 98m	Wind Speed at 98m
Wind Speed at 100m	Relative Humidity
Wind Speed at 40m (1)	Barometric Pressure

* Reference: Atlas website

To begin the data request process, click on “Request Service” (Figure 40).

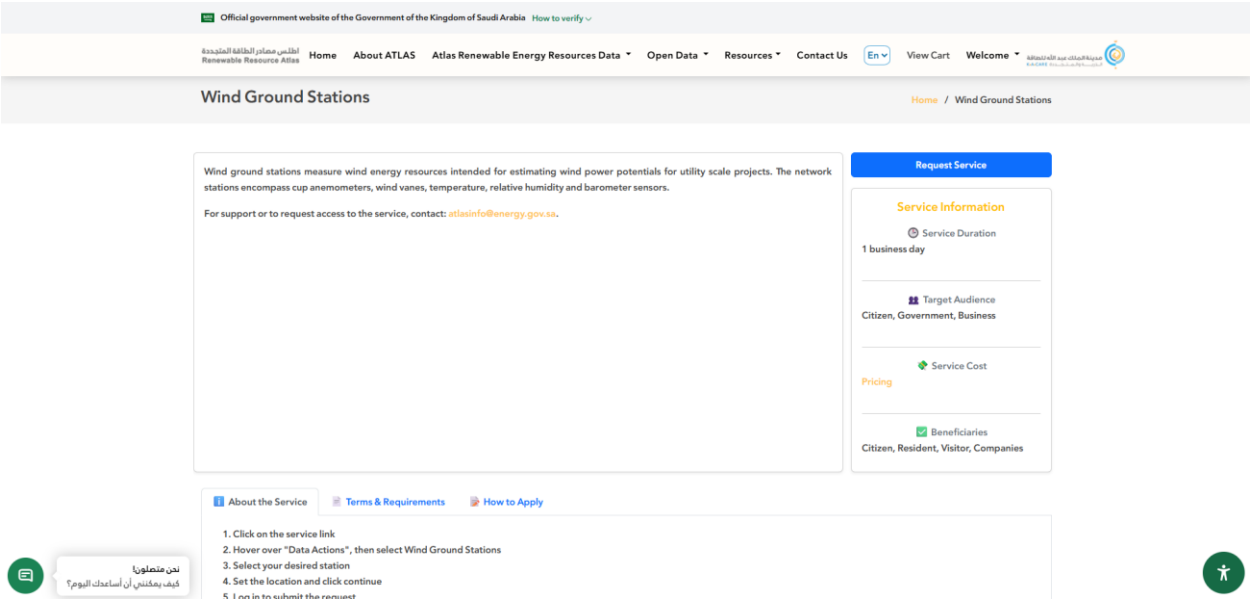


Figure 40: Request Service

On this page, the user can explore the pricing details by navigating to Service Cost section, clicking on “Pricing” within that section to review the full breakdown of fees before proceeding (Figure 41).

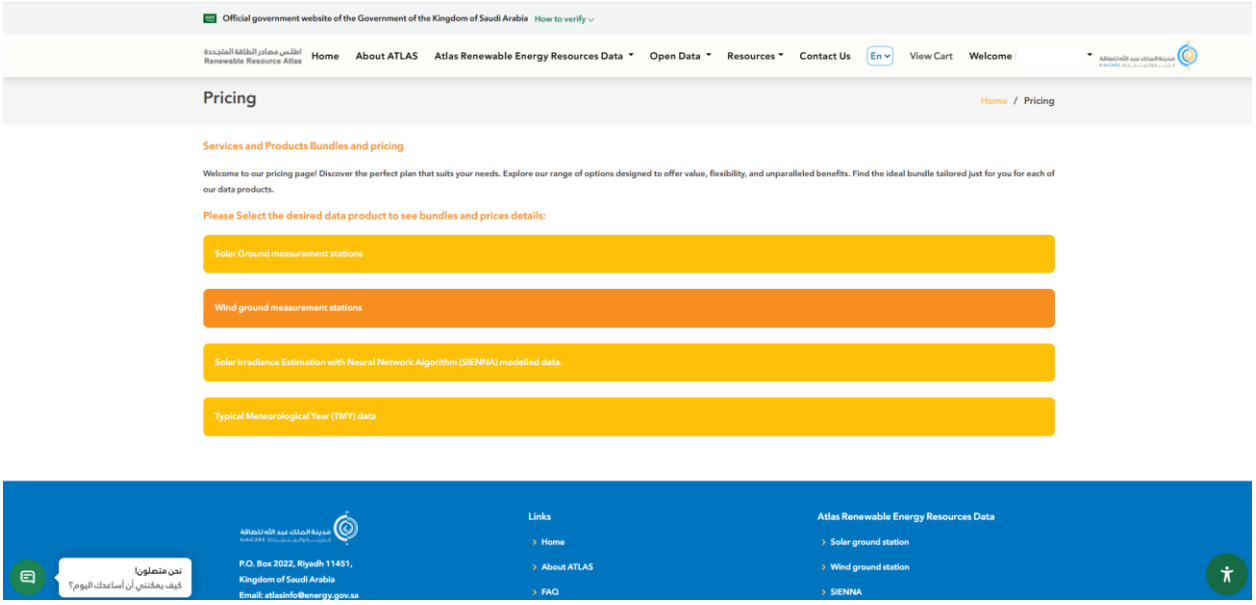


Figure 41: Pricing Detail

The service page will open where the user is able to select the station name and choose the required data parameters (Figure 42).

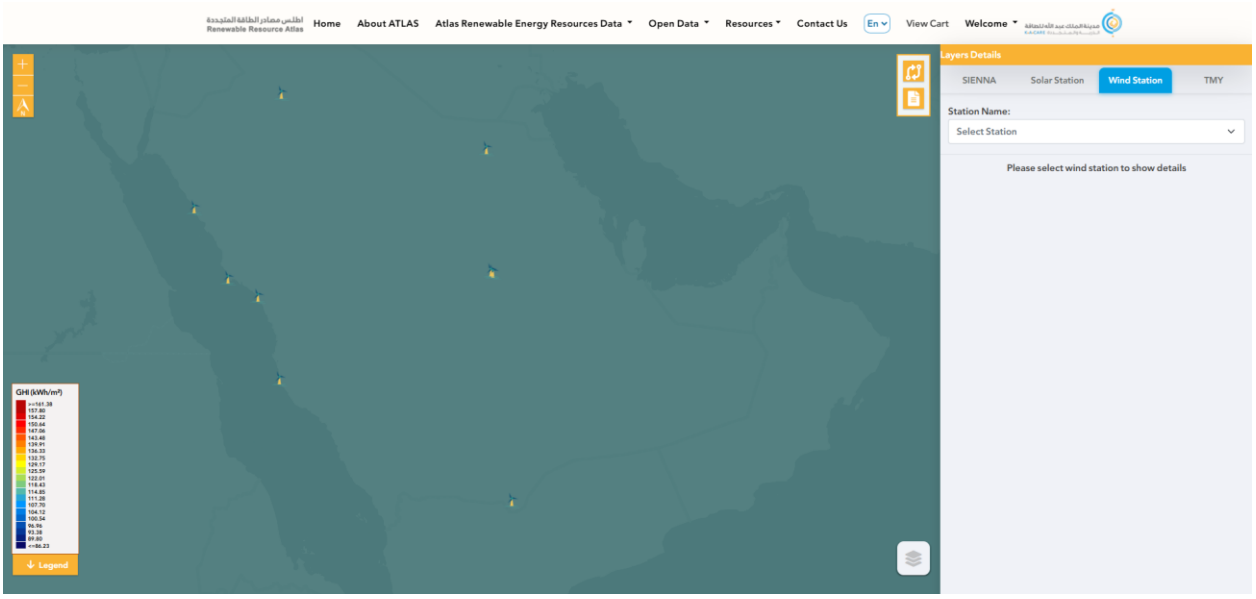


Figure 42: Wind Station Selection

After selecting a station, detailed information about the station will be displayed (Figure 43).

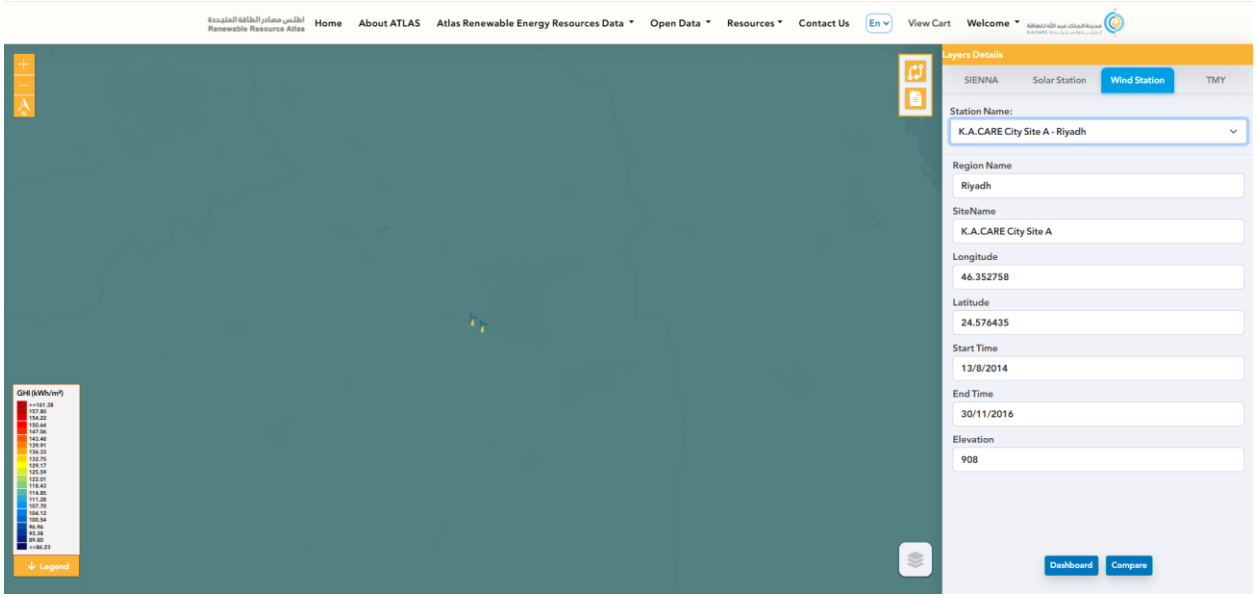


Figure 43: Wind Station Details

Click on “Dashboard” to (Figure 44):

- Define data resolution
- Select time range
- Customize parameters
- Display charts

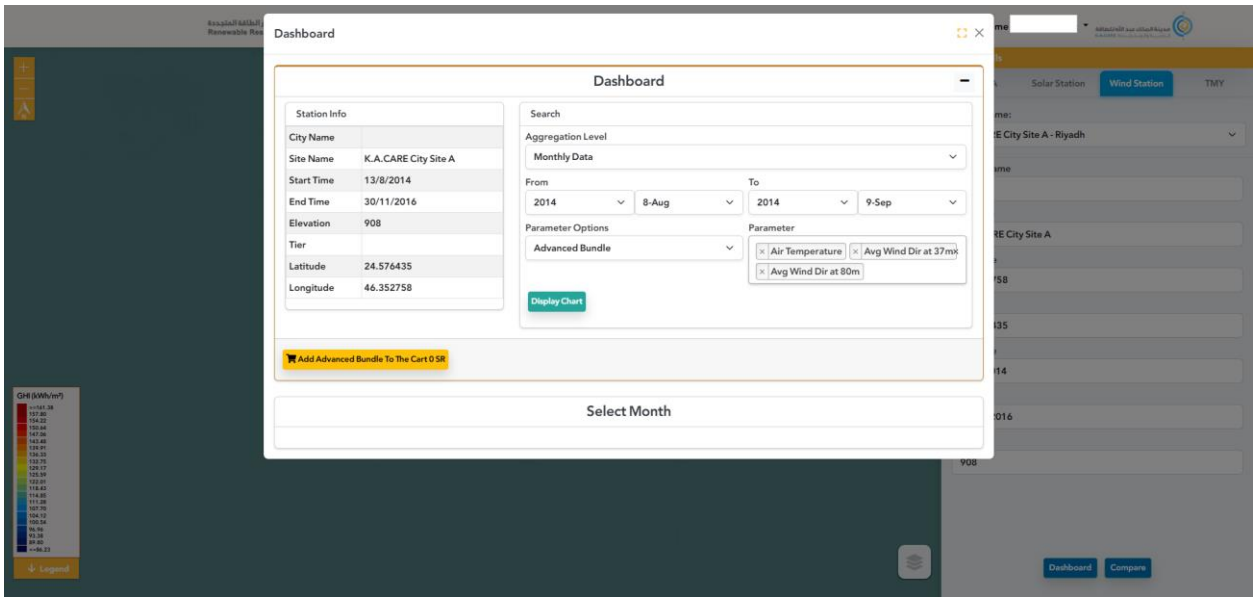


Figure 44: Dashboard Configuration

The user can either view the data through dashboards within the platform or proceed with downloading the dataset (Figure 45).

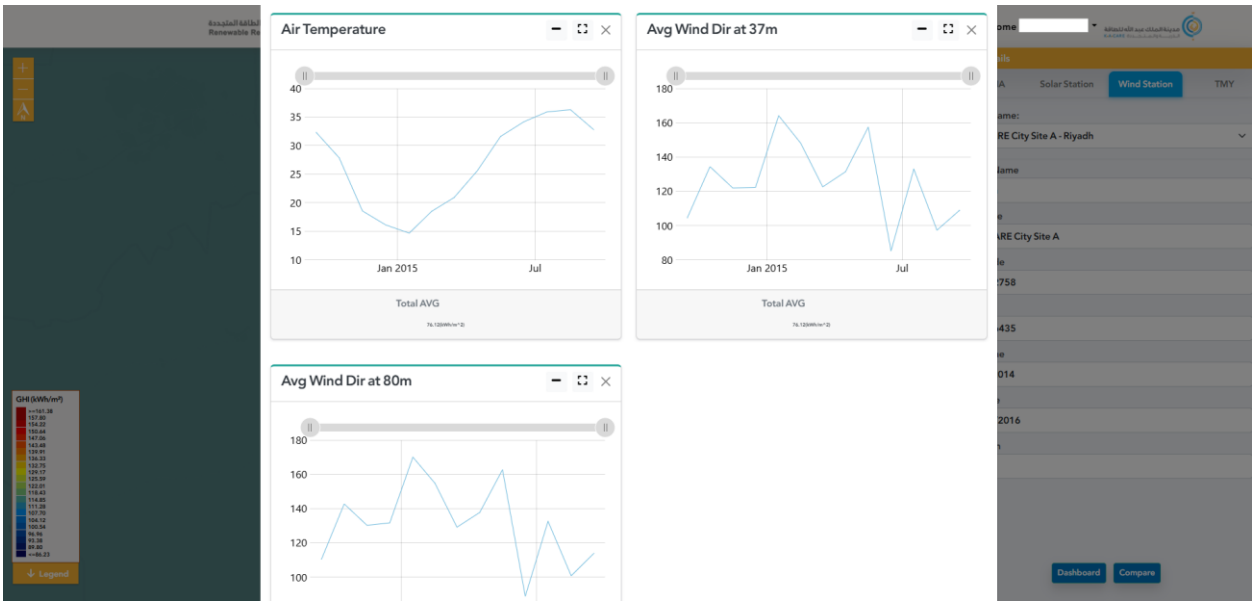


Figure 45: Display Charts

Once the data configuration is complete, submit the request by “Add Custom Bundle to Cart” and the request will be added to the cart (Figure 46).

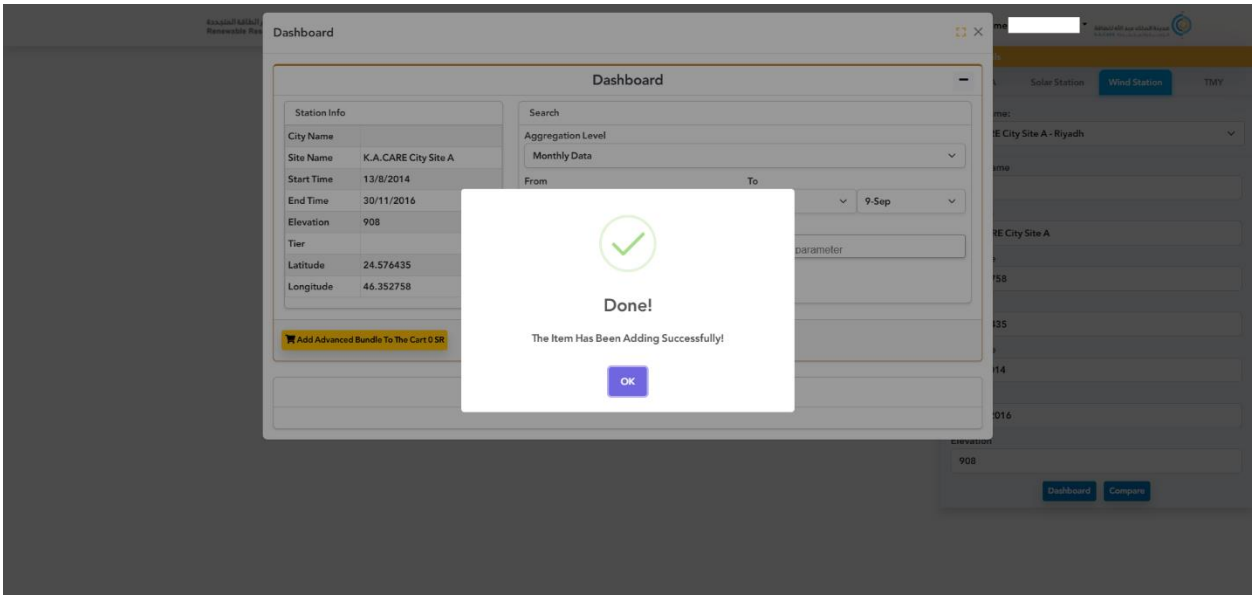


Figure 46: Add Item to Cart

Proceed to “View Cart” in the top-right corner of the browser to complete the payment process through the “Checkout” button (Figure 47).

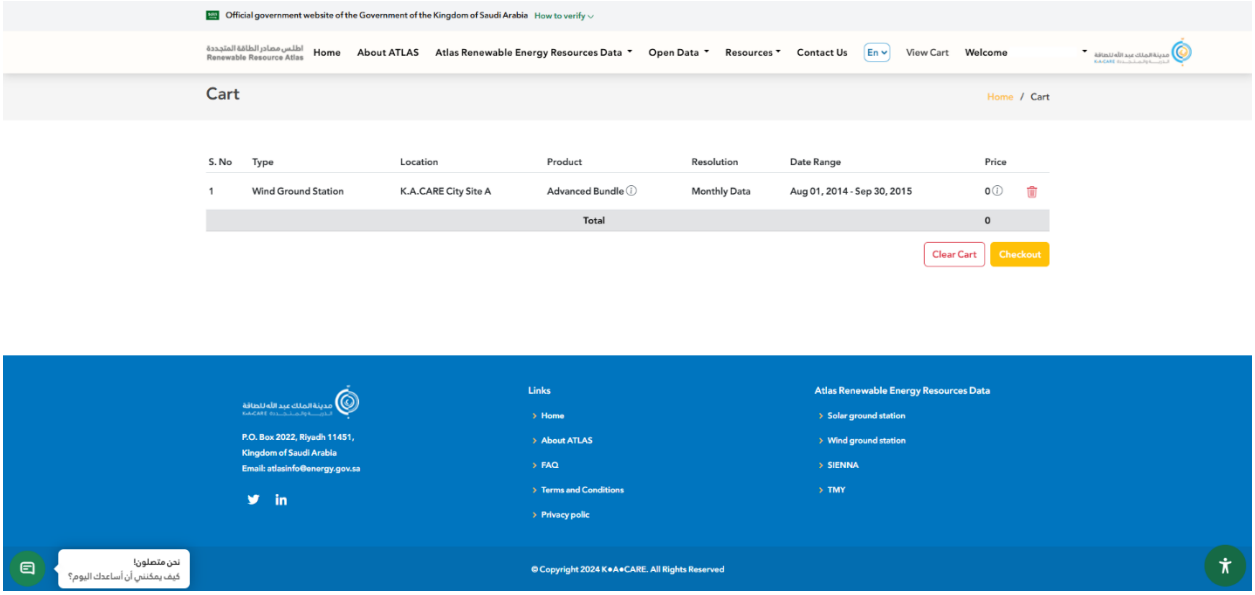
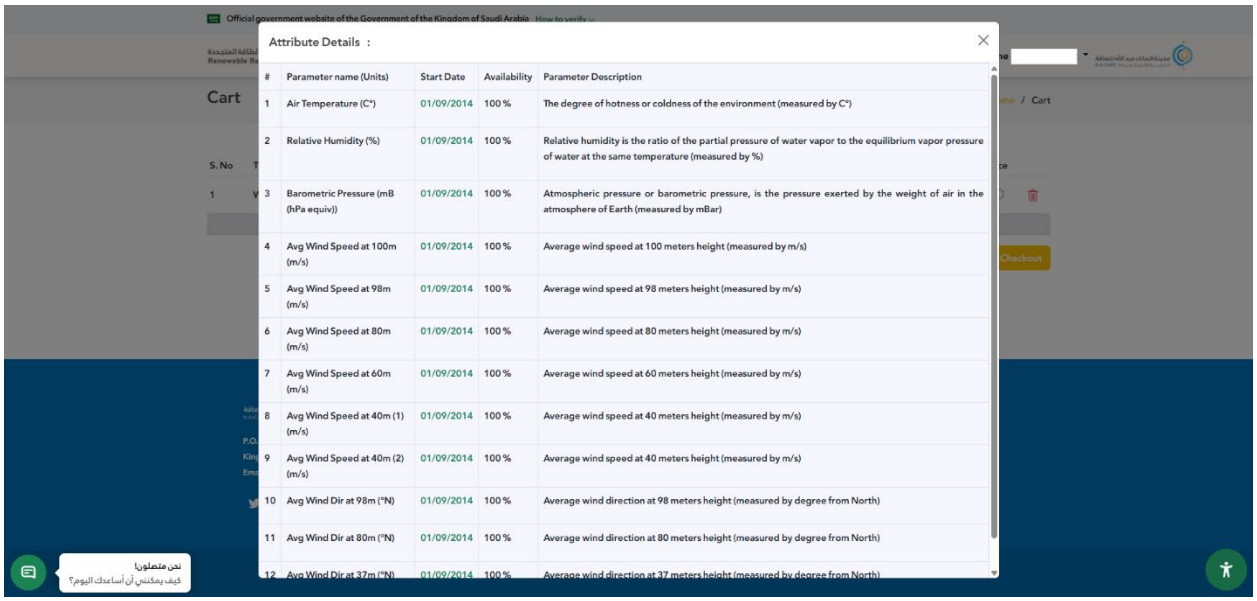


Figure 47: View Cart

On the orders page, the user can view list of items requested. Click on ⓘ icon next to the product name to view the specific attribute order details (Figure 48).



#	Parameter name (Units)	Start Date	Availability	Parameter Description
1	Air Temperature (C°)	01/09/2014	100 %	The degree of hotness or coldness of the environment (measured by C°)
2	Relative Humidity (%)	01/09/2014	100 %	Relative humidity is the ratio of the partial pressure of water vapor to the equilibrium vapor pressure of water at the same temperature (measured by %)
3	Barometric Pressure (mB (hPa equiv))	01/09/2014	100 %	Atmospheric pressure or barometric pressure, is the pressure exerted by the weight of air in the atmosphere of Earth (measured by mBar)
4	Avg Wind Speed at 100m (m/s)	01/09/2014	100 %	Average wind speed at 100 meters height (measured by m/s)
5	Avg Wind Speed at 98m (m/s)	01/09/2014	100 %	Average wind speed at 98 meters height (measured by m/s)
6	Avg Wind Speed at 80m (m/s)	01/09/2014	100 %	Average wind speed at 80 meters height (measured by m/s)
7	Avg Wind Speed at 60m (m/s)	01/09/2014	100 %	Average wind speed at 60 meters height (measured by m/s)
8	Avg Wind Speed at 40m (1) (m/s)	01/09/2014	100 %	Average wind speed at 40 meters height (measured by m/s)
9	Avg Wind Speed at 40m (2) (m/s)	01/09/2014	100 %	Average wind speed at 40 meters height (measured by m/s)
10	Avg Wind Dir at 98m (°N)	01/09/2014	100 %	Average wind direction at 98 meters height (measured by degree from North)
11	Avg Wind Dir at 80m (°N)	01/09/2014	100 %	Average wind direction at 80 meters height (measured by degree from North)
12	Avg Wind Dir at 37m (°N)	01/09/2014	100 %	Average wind direction at 37 meters height (measured by degree from North)

Figure 48: View Order Details

Click on ⓘ icon next to the price to view a breakdown of cost details (Figure 49).

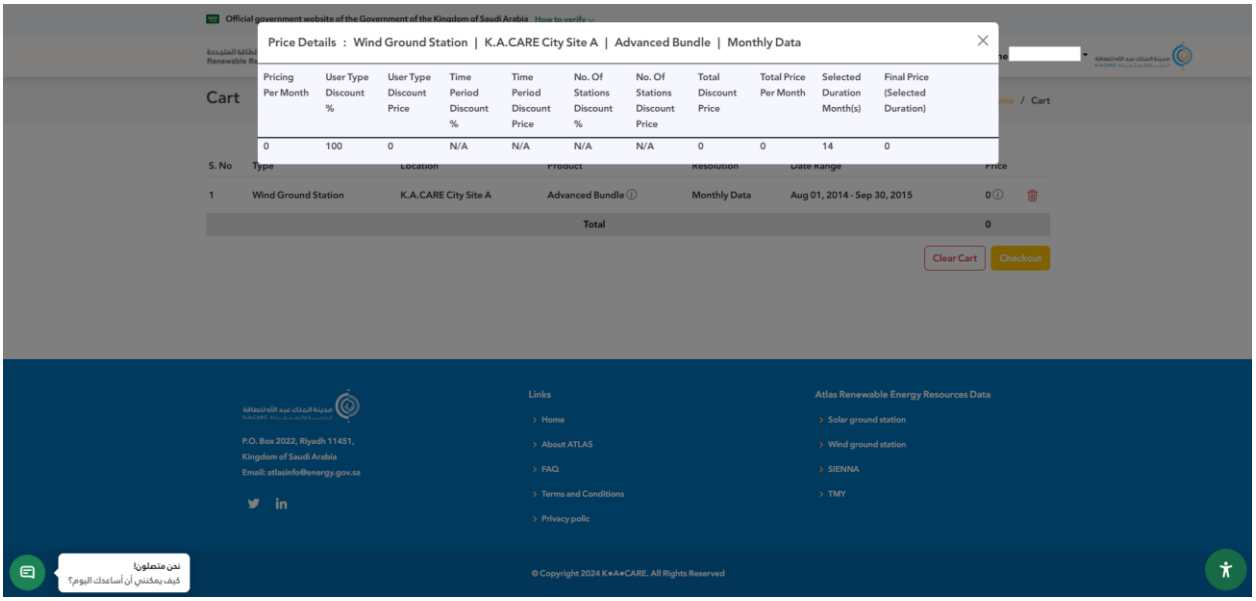


Figure 49: View Price Details

To proceed with confirming the order, click on “Checkout”. A popup message will appear to verify the user request (Figure 50).

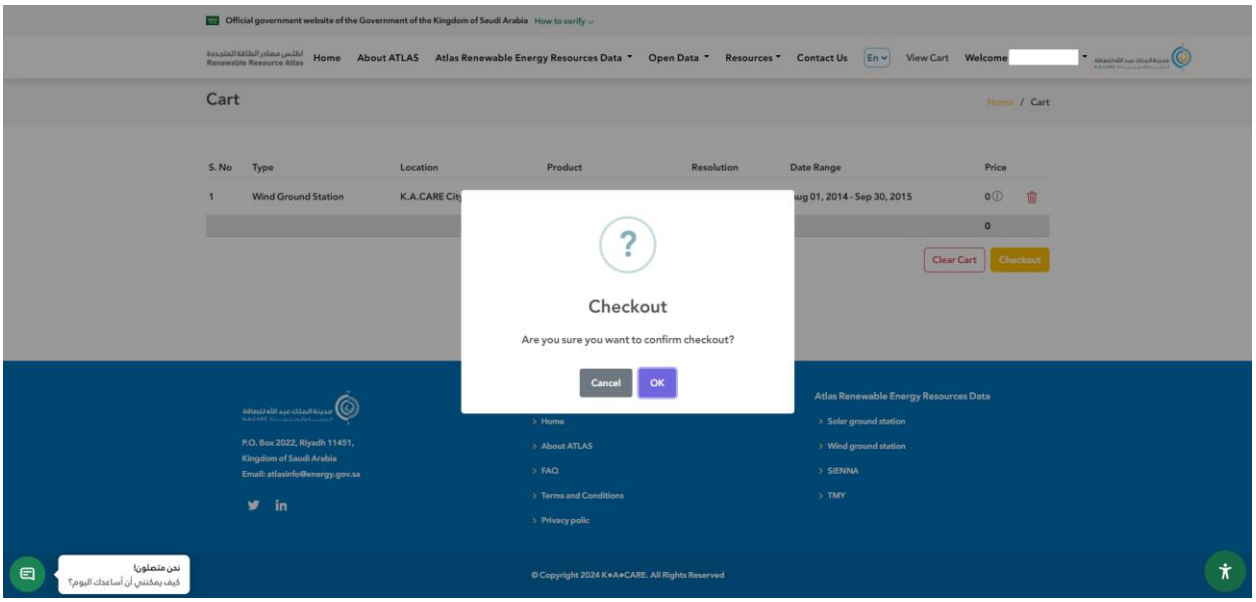


Figure 50: Checkout Process

Once verified, the user can view the quotation document (Figure 51), then proceed to the next step to place the order by clicking “Next Step”.

Figure 51: Order Quotation

The user shall review the agreement and check the box to agree and process the order (Figure 52).

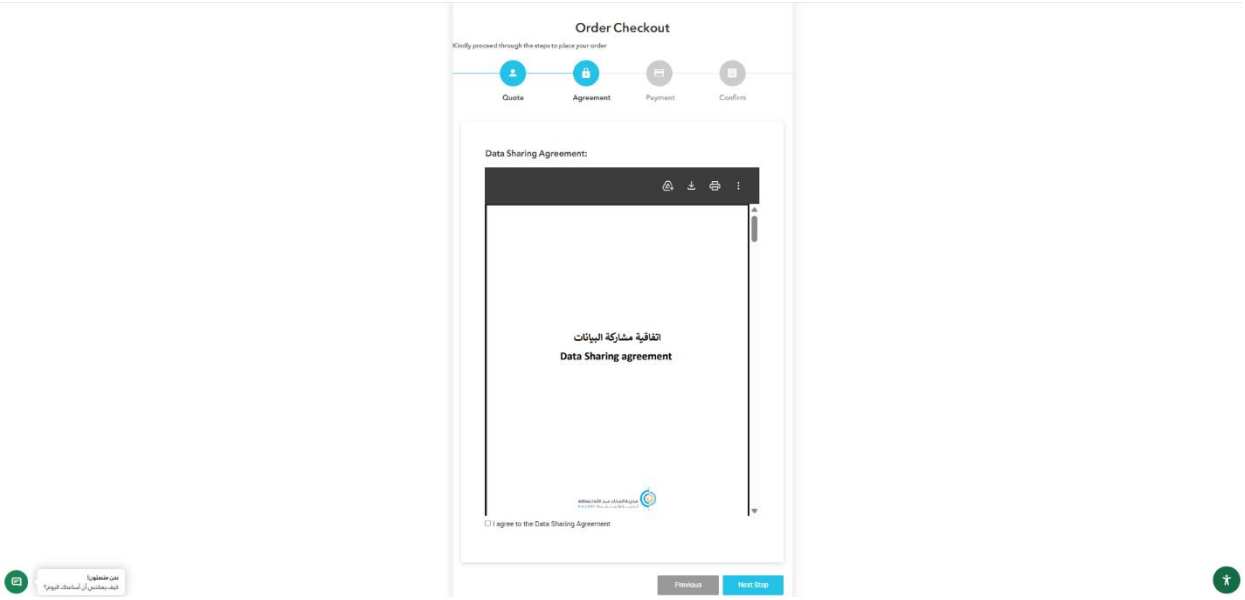


Figure 52: Data Sharing Agreement

The user shall follow the on-screen payment instructions (Figure 53).

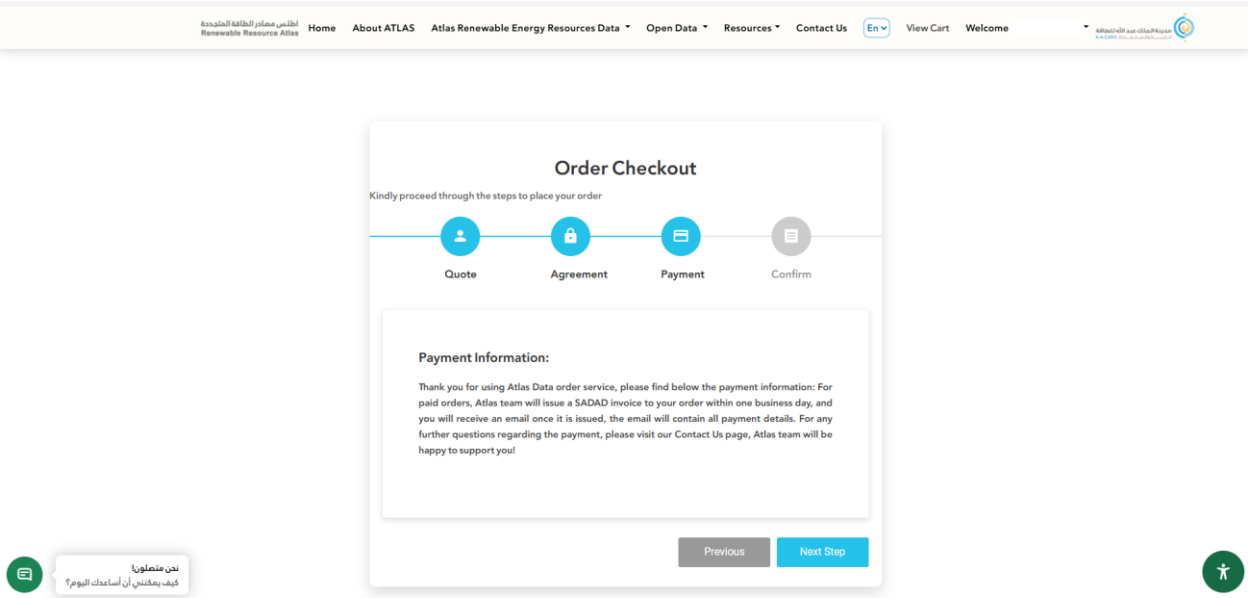


Figure 53: Payment Process

Review the final order details and click on “Submit” (Figure 54).

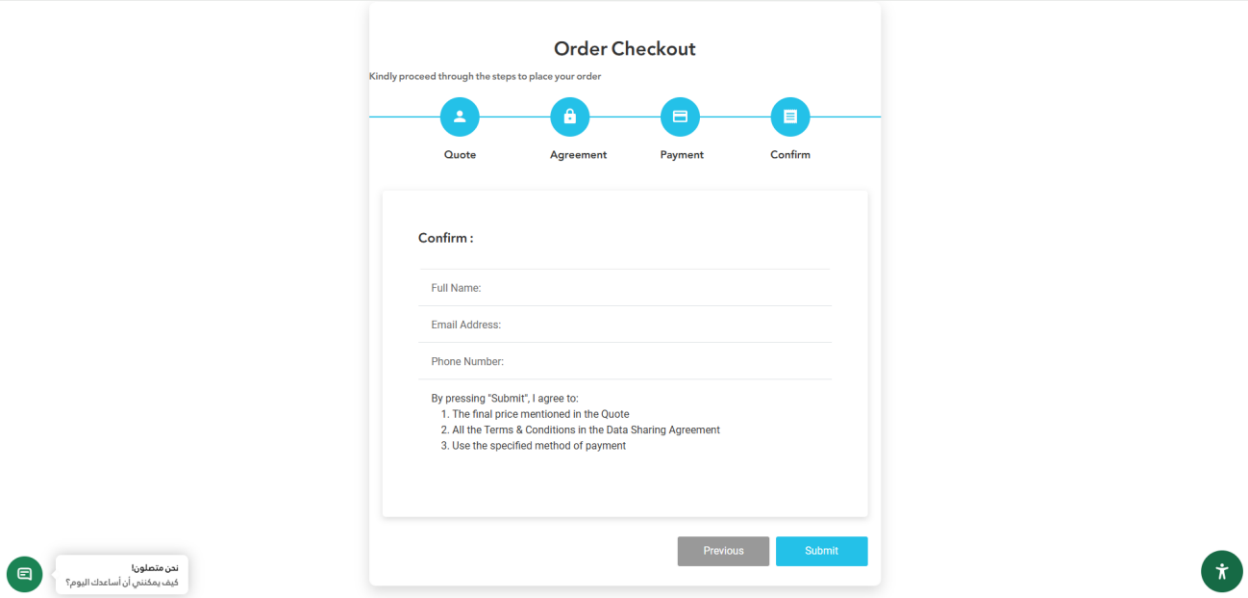


Figure 54: Order Confirmation

Once the order request is approved, locate the automated email sent to the user email inbox. This email confirms that the order is ready to be downloaded (Figure 55).

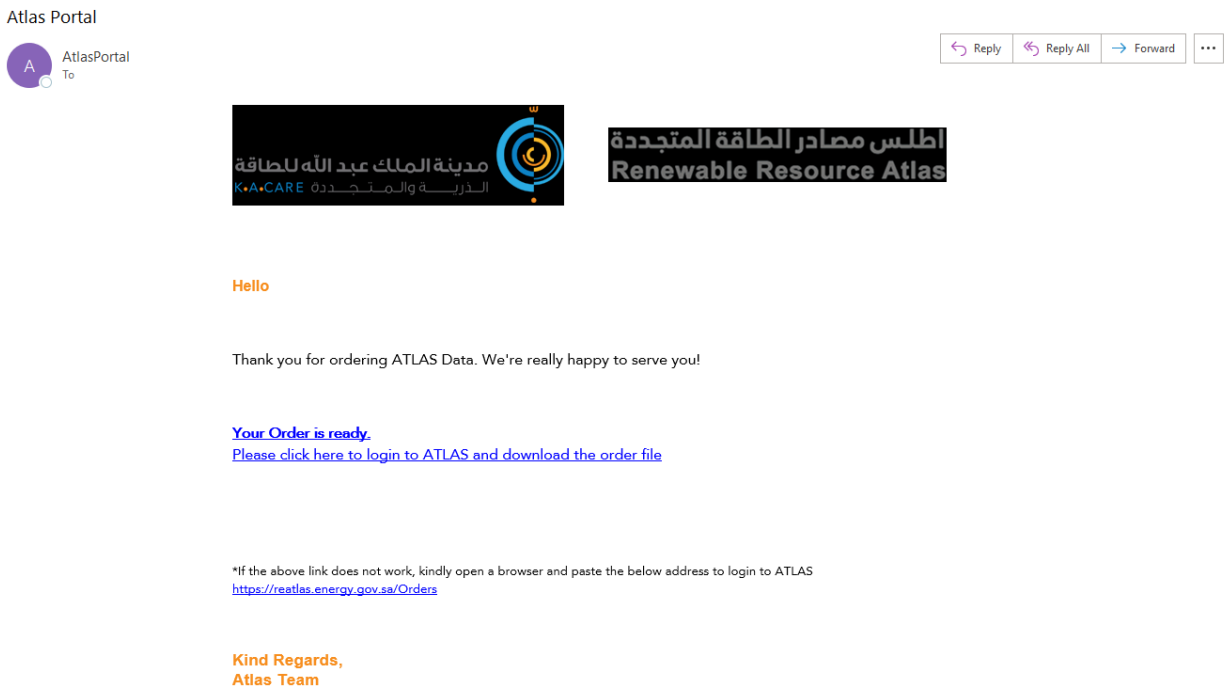


Figure 55: Approved Request Email

Click the access link provided within the email body, which will open the platform in the web browser. Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 56).

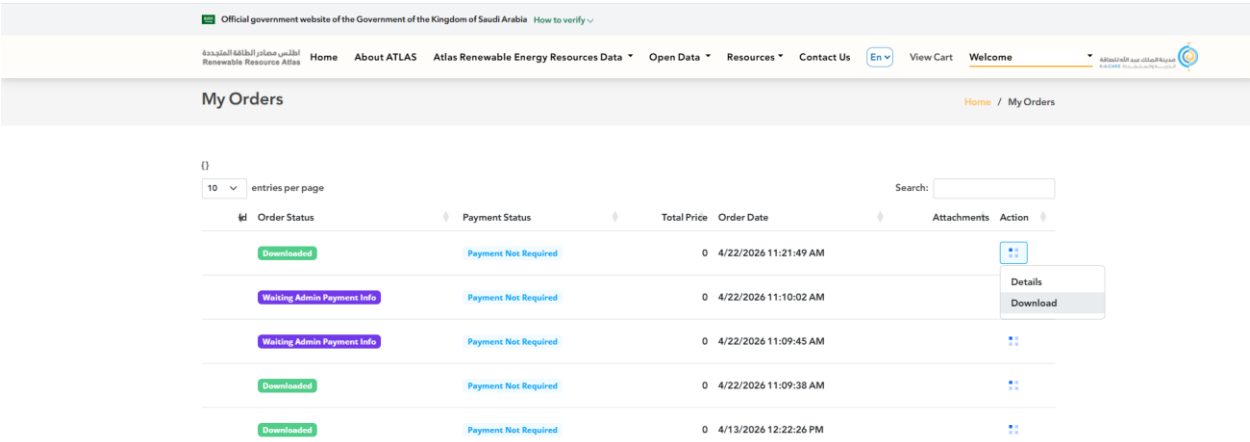


Figure 56: Download Menu

Alternatively, navigate to the top-right corner of the browser window and click on the Profile tab, then “My Orders” tab (Figure 57).

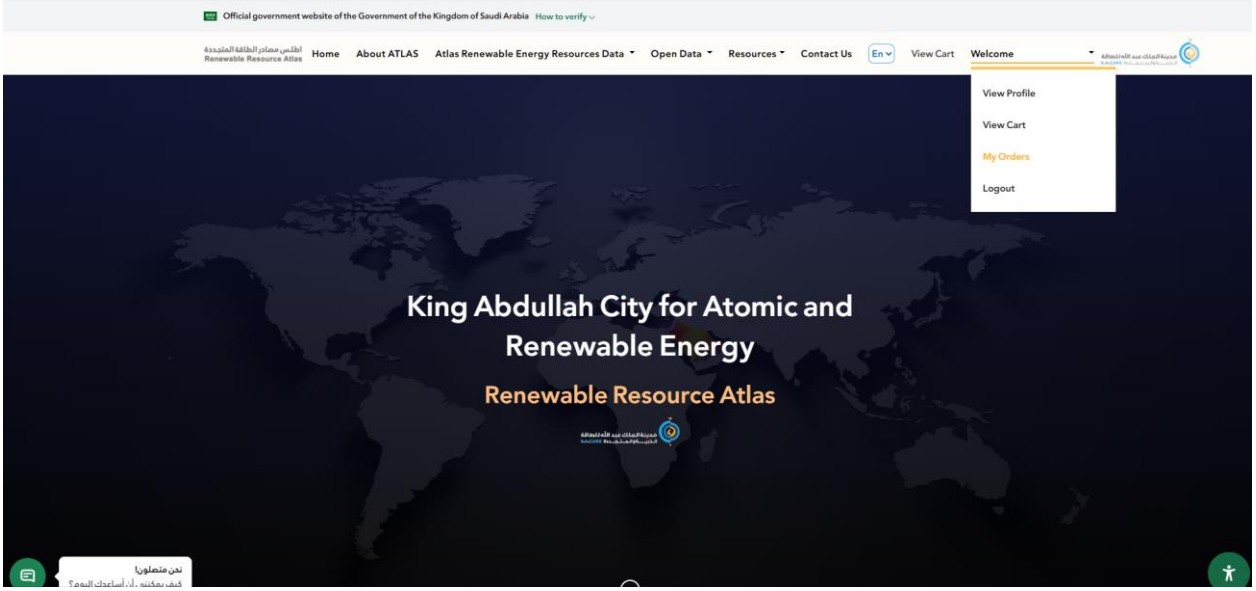


Figure 57: My Orders Tab

Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 58).

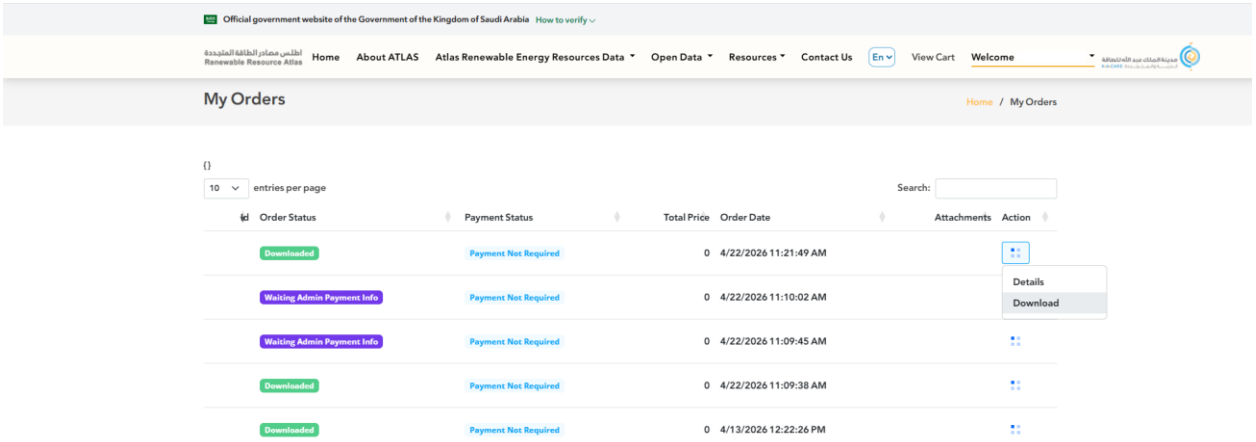
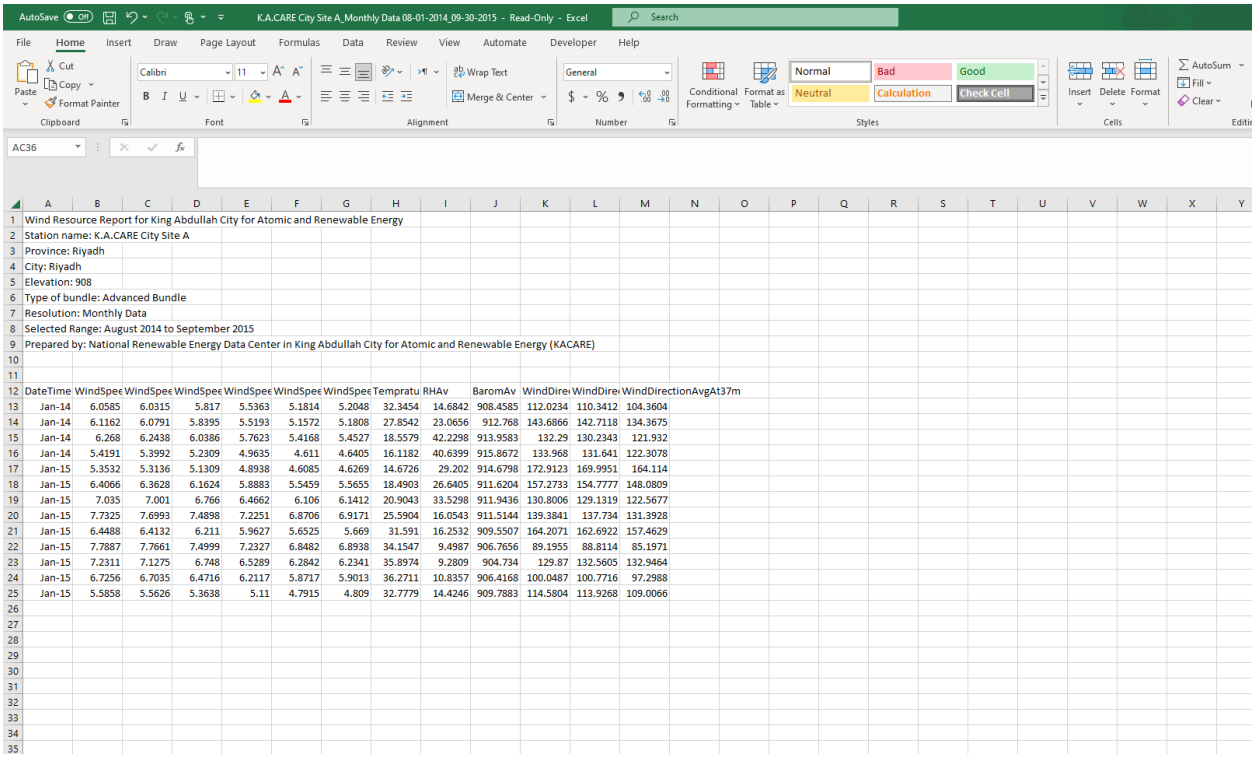


Figure 58: Download Menu

Once the request is approved, the dataset becomes available for download in CSV format (Figure 59).



1	Wind Resource Report for King Abdullah City for Atomic and Renewable Energy												
2	Station name: K.A.CARE City Site A												
3	Province: Riyadh												
4	City: Riyadh												
5	Elevation: 908												
6	Type of bundle: Advanced Bundle												
7	Resolution: Monthly Data												
8	Selected Range: August 2014 to September 2015												
9	Prepared by: National Renewable Energy Data Center in King Abdullah City for Atomic and Renewable Energy (KACARE)												
12	DateTime	WindSpee	WindSpee	WindSpee	WindSpee	WindSpee	WindSpee	Tempratu	RHAv	BaromAv	WindDire	WindDire	WindDirectionAvgAt37m
13	Jan-14	6.0585	6.0315	5.817	5.5363	5.1814	5.2048	32.3454	14.6842	908.4585	112.0234	110.3412	104.3604
14	Jan-14	6.1162	6.0791	5.8395	5.5193	5.1572	5.1808	27.8542	23.0656	912.768	143.6866	142.7118	134.3675
15	Jan-14	6.268	6.2438	6.0386	5.7623	5.4168	5.4527	18.5579	42.2298	913.9583	132.29	130.2343	121.932
16	Jan-14	5.4191	5.3992	5.2309	4.9635	4.611	4.6405	16.1182	40.6399	915.8672	133.968	131.641	122.3078
17	Jan-15	5.3532	5.3136	5.1309	4.8938	4.6085	4.6269	14.6726	29.202	914.6798	172.9123	169.9951	164.114
18	Jan-15	6.4066	6.3628	6.1624	5.8883	5.5459	5.5655	18.4903	26.6405	911.6204	157.2733	154.7777	148.0809
19	Jan-15	7.035	7.001	6.766	6.4662	6.106	6.1412	20.9043	33.5298	911.9436	130.8006	129.1319	122.5677
20	Jan-15	7.7325	7.6993	7.4898	7.2251	6.8706	6.9171	25.5904	16.0543	911.5144	139.3841	137.734	131.3928
21	Jan-15	6.4488	6.4132	6.211	5.9627	5.6525	5.669	31.591	16.2532	909.5507	164.2071	162.6922	157.4629
22	Jan-15	7.7887	7.7661	7.4999	7.2327	6.8482	6.8938	34.1547	9.4987	906.7656	89.1955	88.8114	85.1971
23	Jan-15	7.2311	7.1275	6.748	6.5289	6.2842	6.2341	35.8974	9.2809	904.734	129.87	132.5605	132.9464
24	Jan-15	6.7256	6.7035	6.4716	6.2117	5.8717	5.9013	36.2711	10.8357	906.4168	100.0487	100.7716	97.2988
25	Jan-15	5.5858	5.5626	5.3638	5.11	4.7915	4.809	32.7779	14.4246	909.7883	114.5804	113.9268	109.0066

Figure 59: Downloaded Dataset

In the Atlas platform, there is a feature that allows users to compare two stations and analyze their behavior. To begin using this service, click on “Request Service” (Figure 60).

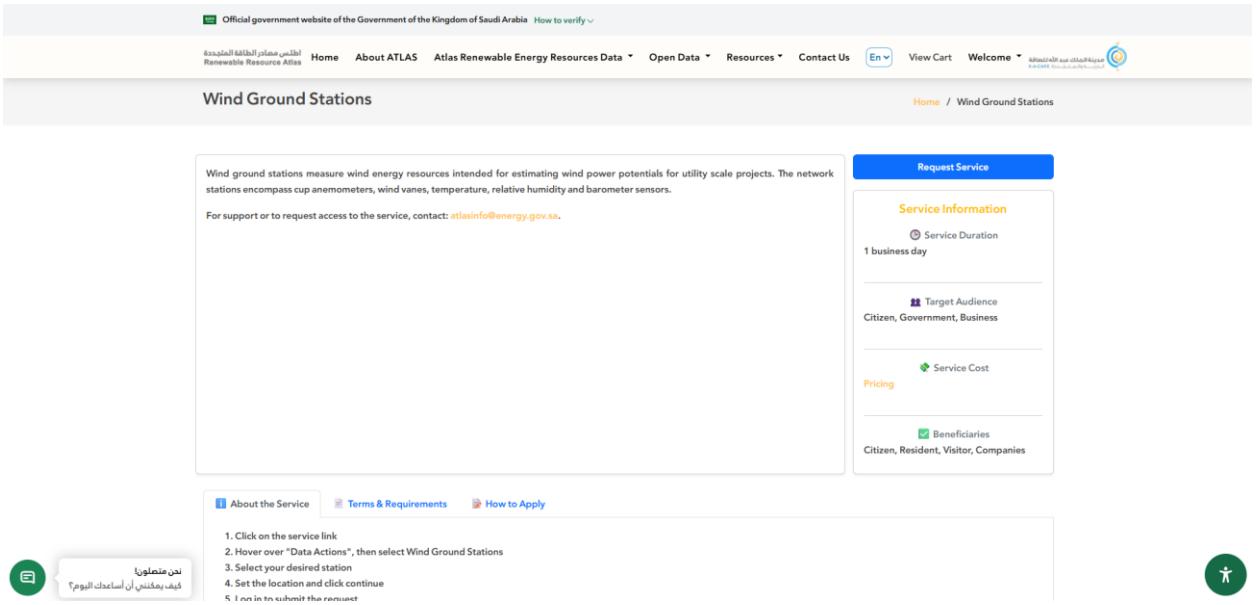


Figure 60: Request Service

Select the initial station name, then click on “Compare” to select the second station from the map (Figure 61).

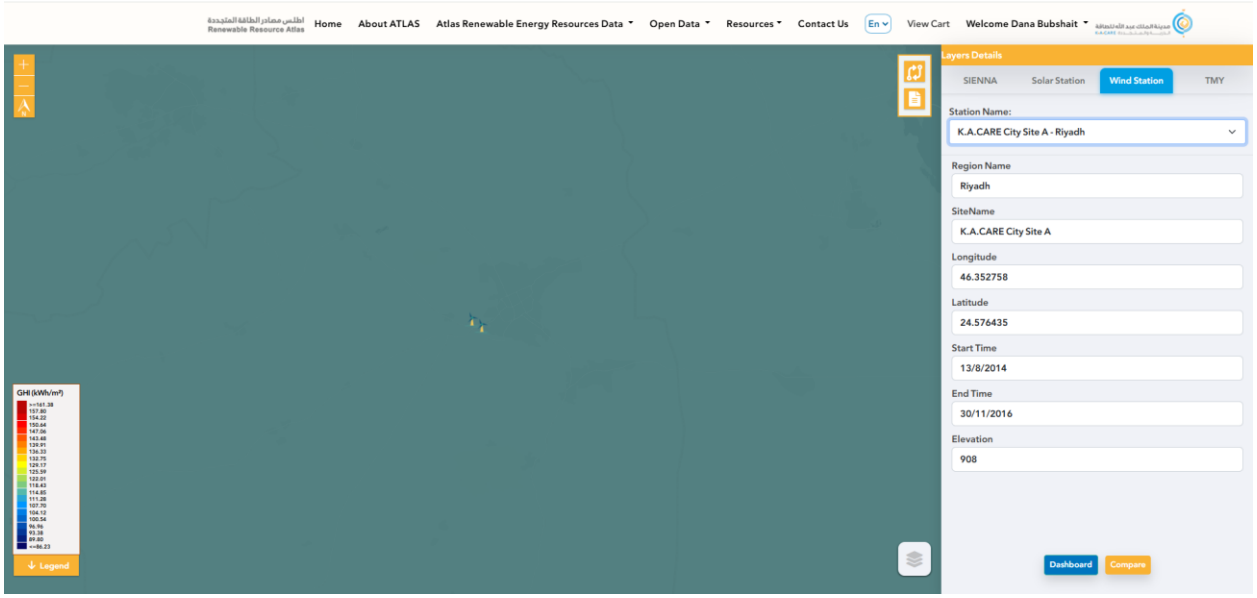


Figure 61: Compare Process

Afterwards both stations datasets are available for comparison, click on “Start Compare” (Figure 62).

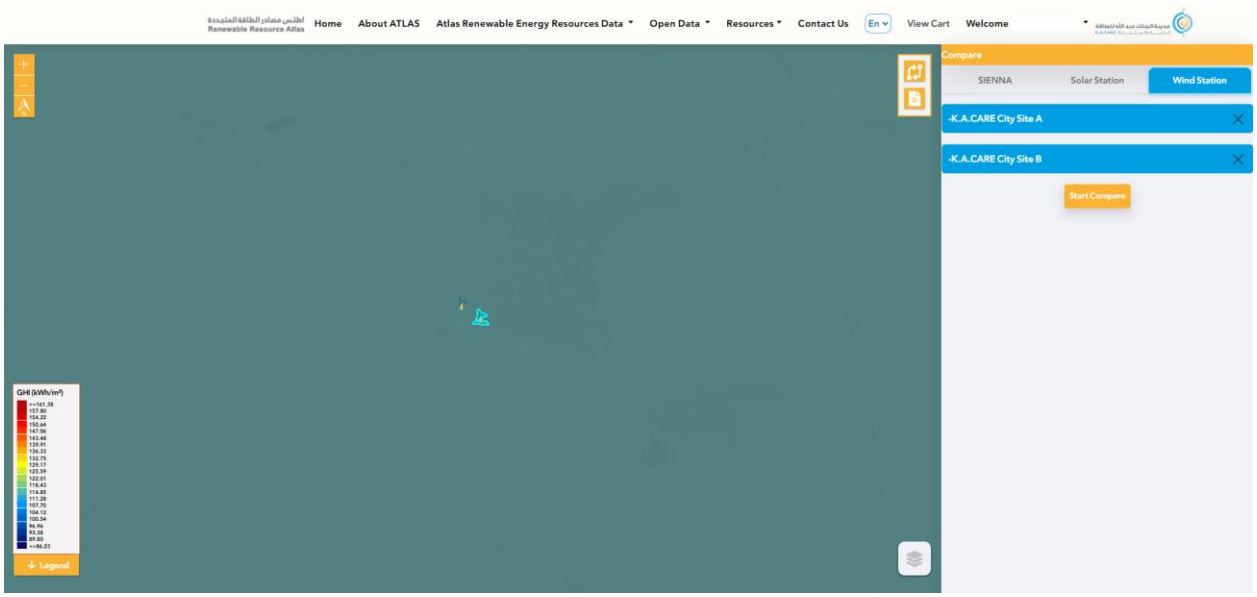


Figure 62: Start Compare Process

Then the “Dashboard” configuration open, where the user can (Figure 63):

- Define aggregation level
- Select time range
- Customize parameters
- Display charts

The data can only be viewed through the comparison feature and not downloaded.

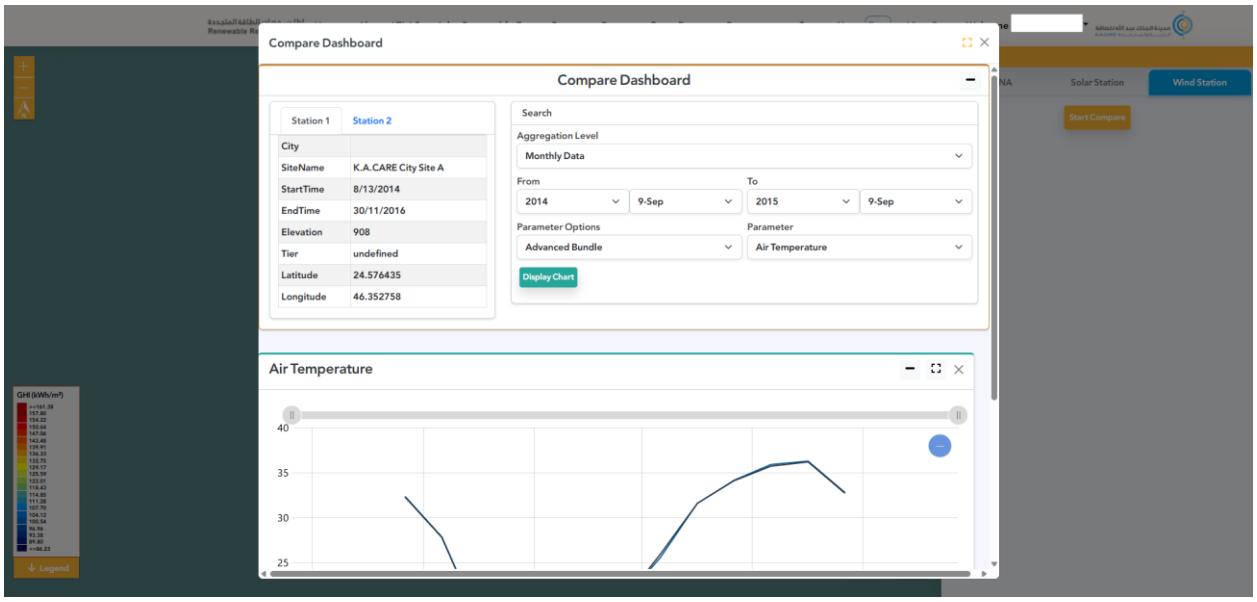


Figure 63: Dashboard Configuration

iii. SIENNA

Solar Irradiance Estimation with Neural Network Algorithm (SIENNA) is a satellite-based solar resource model developed by King Abdullah City for Atomic and Renewable Energy. It provides comprehensive solar data for stakeholders across Saudi Arabia. The model utilizes artificial neural networks, processes satellite imagery from the SEVIRI instrument, and uses data from the MeteoSat Second Generation (MSG) satellite. Key Features of SIENNA include high spatial and temporal solar data coverage, calibration using high-accuracy ground measurements, and suitable for solar project planning and analysis.

To begin the data request process, click on “Request Service” (Figure 64).

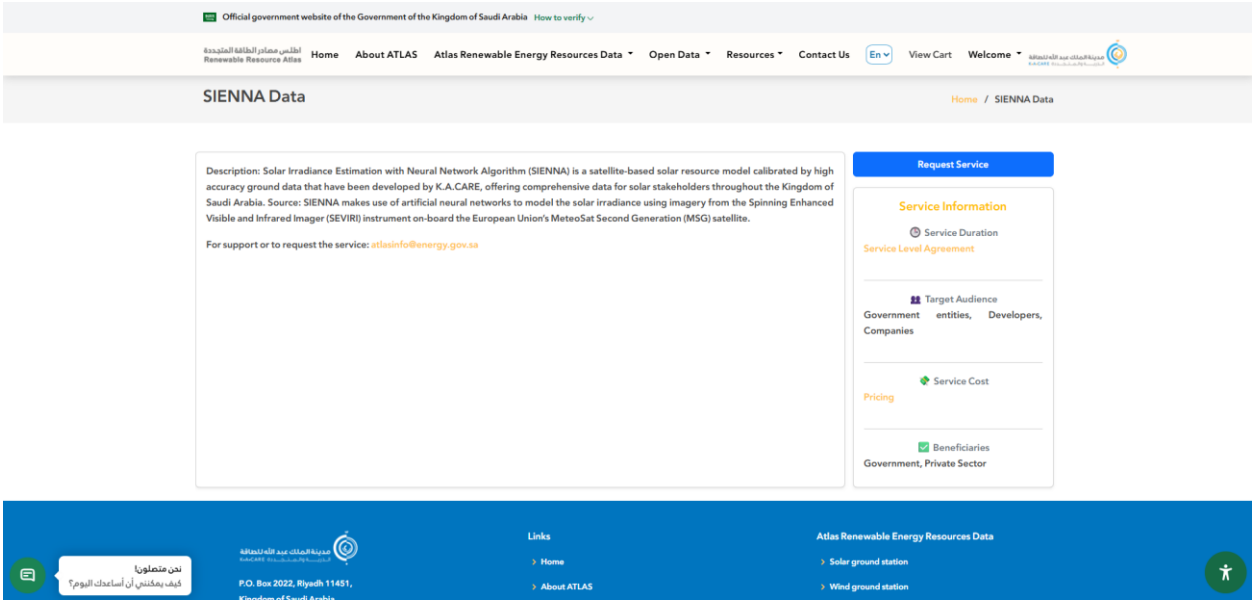


Figure 64: Request Service

On this page, the user can explore the pricing details by navigating to Service Cost section, clicking on “Pricing” within that section to review the full breakdown of fees before proceeding (Figure 65).

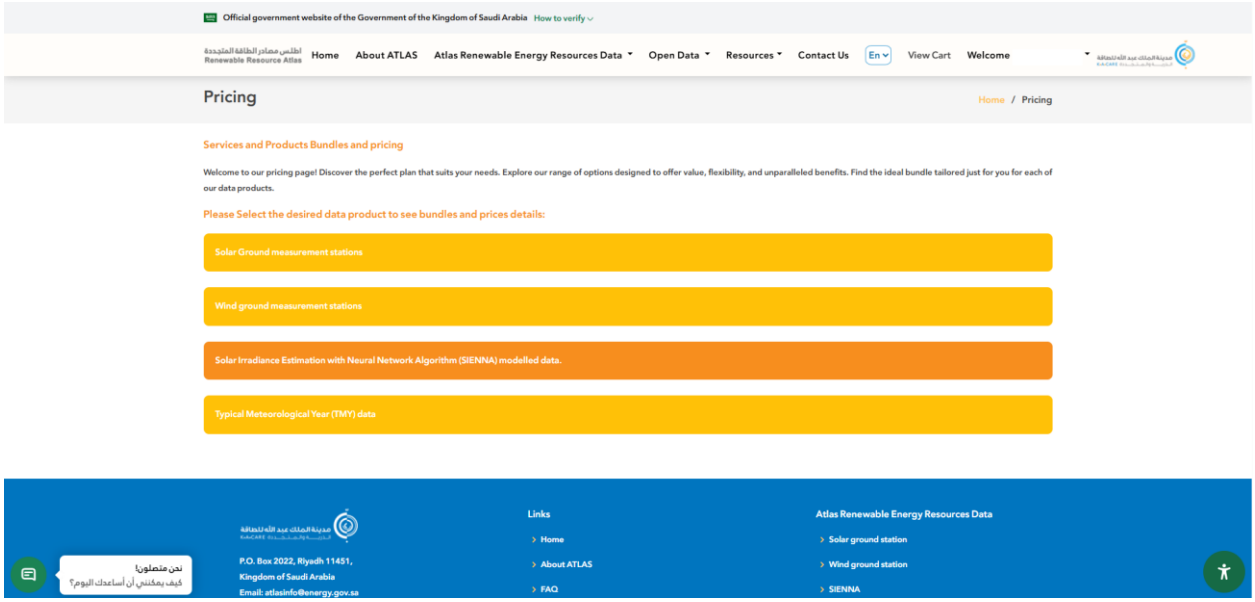


Figure 65: Pricing Details

Select the location coordinates and the parameter required to process the request (Figure 66).

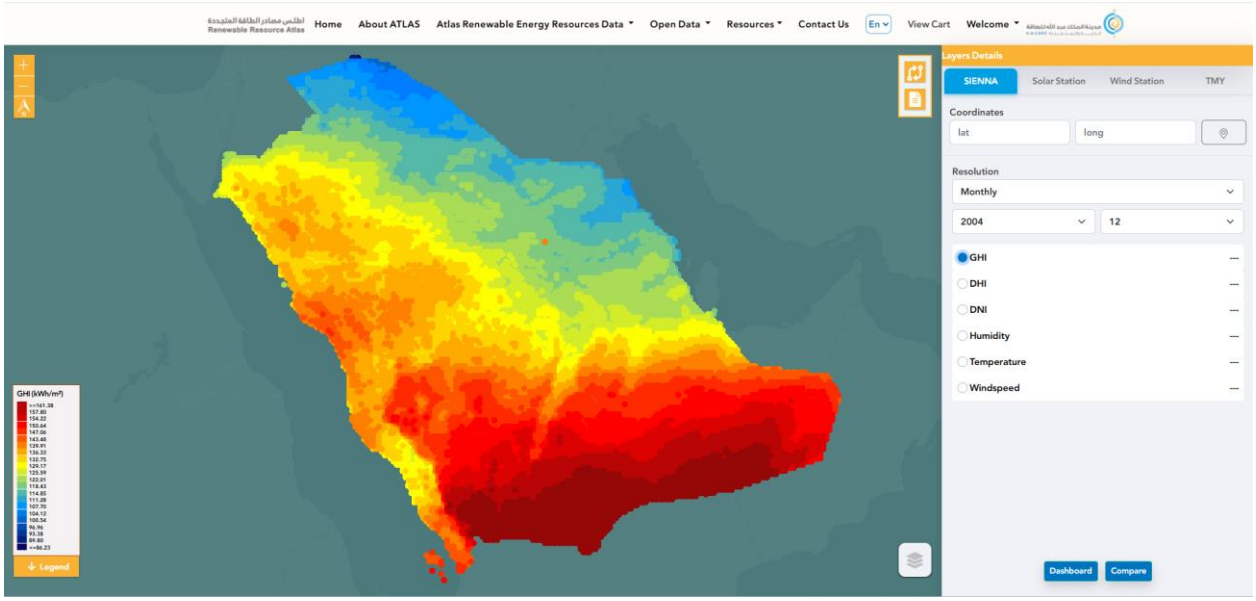


Figure 66: SIENNA Required Information

Click on “Dashboard” to (Figure 67):

- Define aggregation level
- Select time range
- Customize parameters
- Display charts

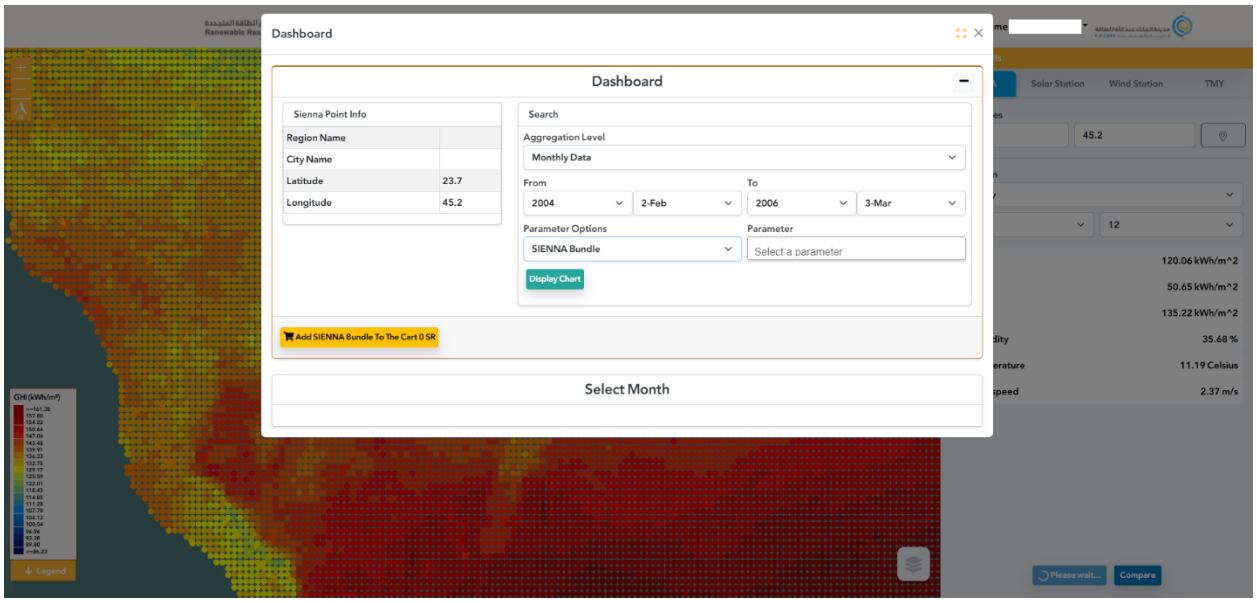


Figure 67: Dashboard Configuration

The user can either view the data through dashboards within the platform or proceed with downloading the dataset (Figure 68).

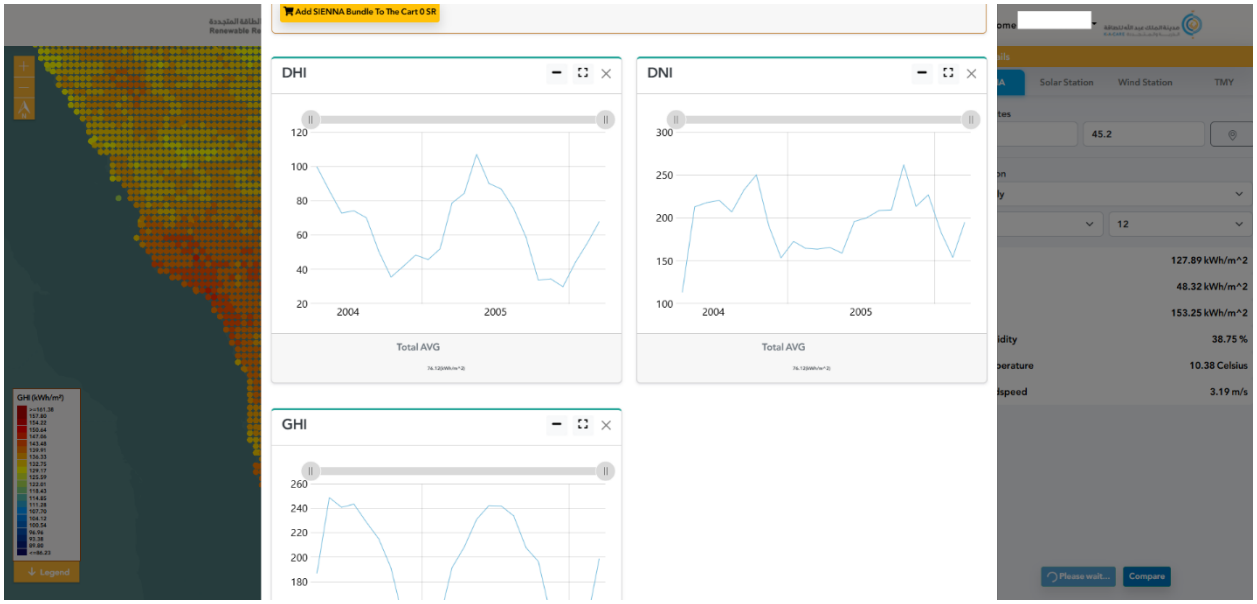


Figure 68: Display Charts

Once the data configuration is complete, submit the request by “Add Custom Bundle to Cart” and the request will be added to the cart (Figure 69).

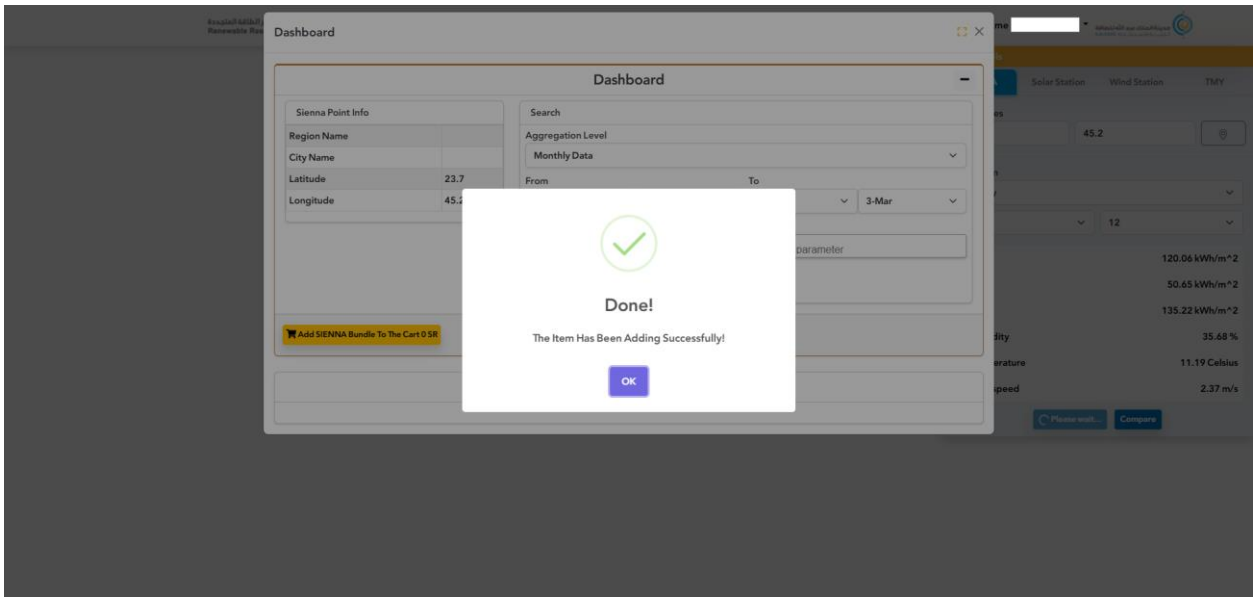


Figure 69: Add Item to Cart

Proceed to “View Cart” in the top-right corner of the browser to complete the payment process through the “Checkout” button (Figure 70).

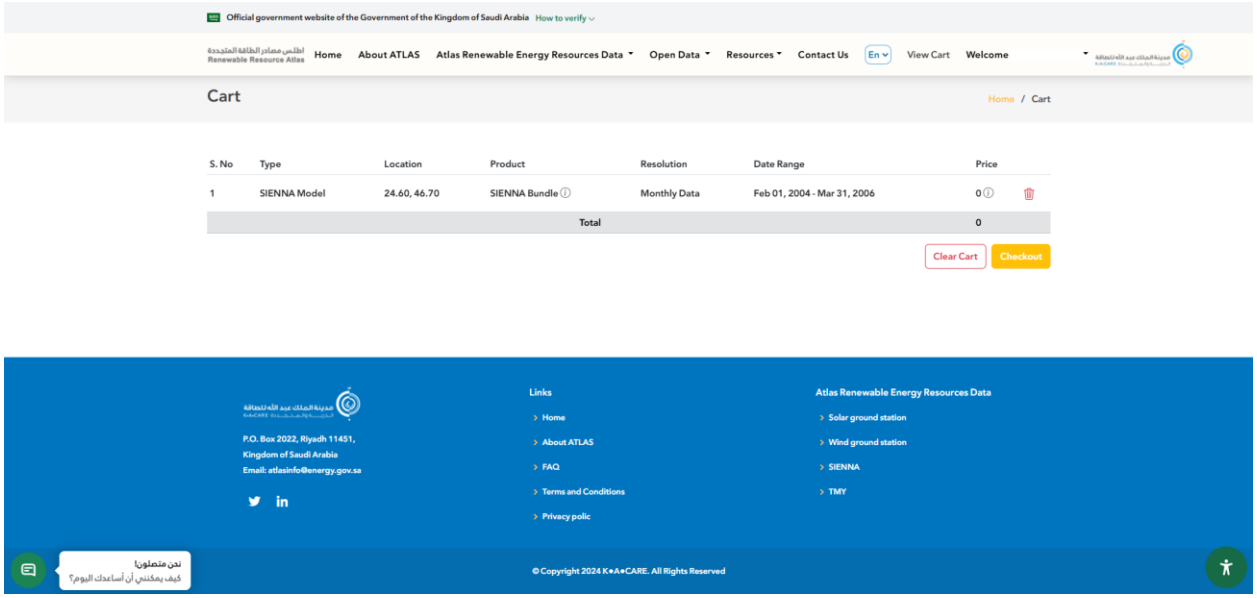
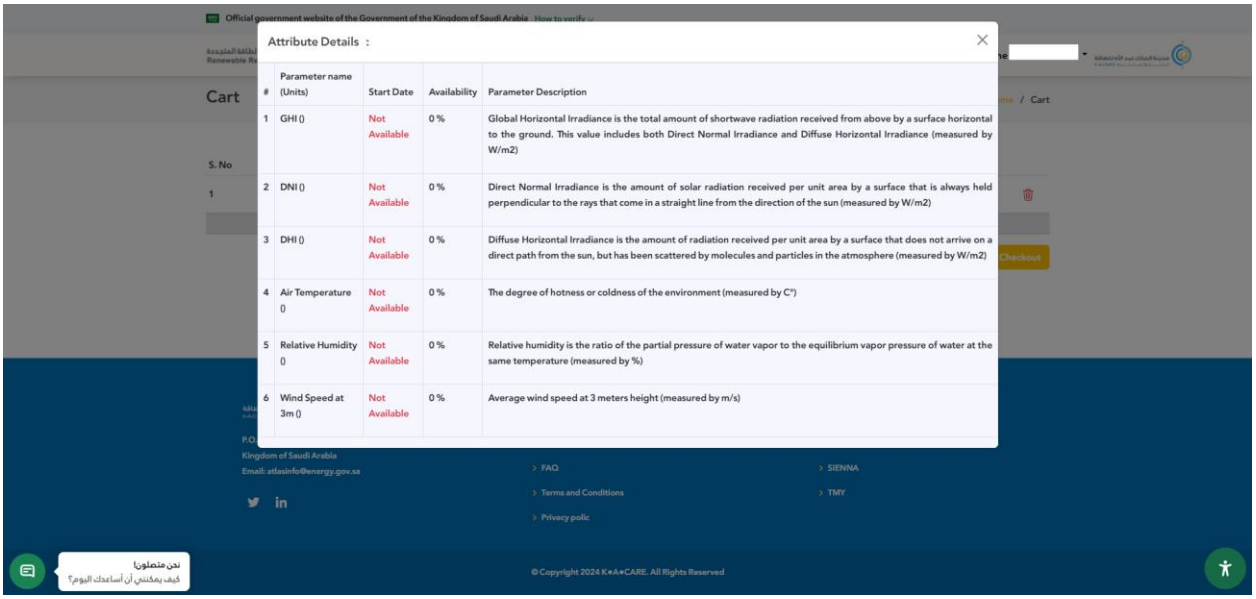


Figure 70: View Cart

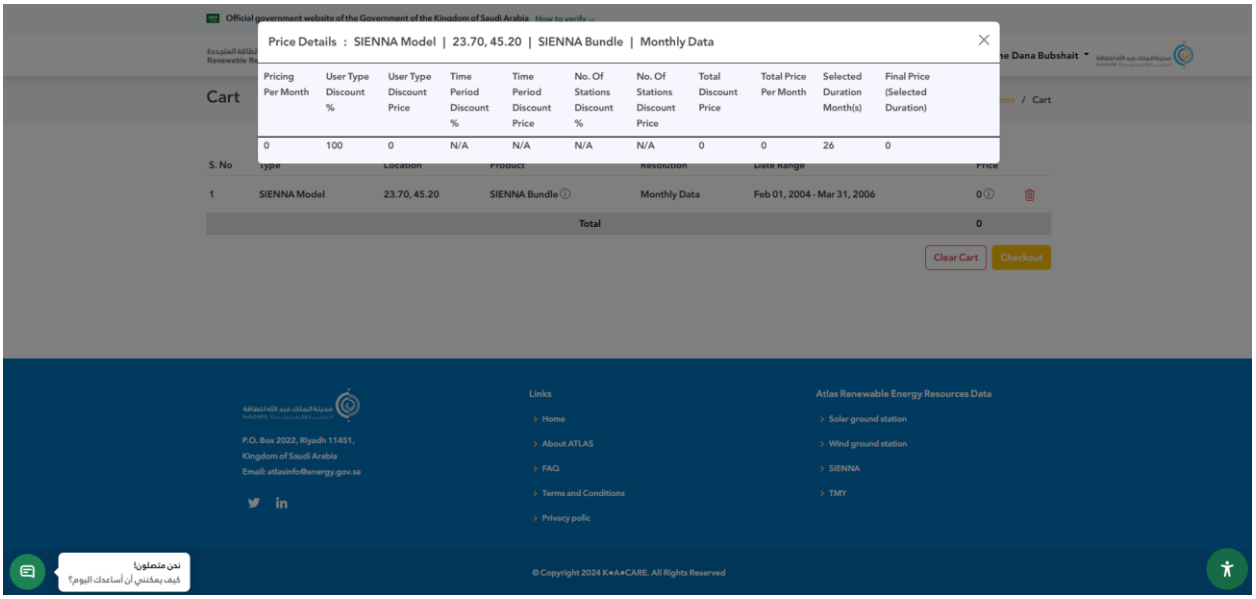
On the orders page, the user can view list of items requested. Click on ⓘ icon next to the product name to view the specific attribute order details (Figure 71).



#	Parameter name (Units)	Start Date	Availability	Parameter Description
1	GHI ()	Not Available	0 %	Global Horizontal Irradiance is the total amount of shortwave radiation received from above by a surface horizontal to the ground. This value includes both Direct Normal Irradiance and Diffuse Horizontal Irradiance (measured by W/m2)
2	DNI ()	Not Available	0 %	Direct Normal Irradiance is the amount of solar radiation received per unit area by a surface that is always held perpendicular to the rays that come in a straight line from the direction of the sun (measured by W/m2)
3	DHI ()	Not Available	0 %	Diffuse Horizontal Irradiance is the amount of radiation received per unit area by a surface that does not arrive on a direct path from the sun, but has been scattered by molecules and particles in the atmosphere (measured by W/m2)
4	Air Temperature ()	Not Available	0 %	The degree of hotness or coldness of the environment (measured by C°)
5	Relative Humidity ()	Not Available	0 %	Relative humidity is the ratio of the partial pressure of water vapor to the equilibrium vapor pressure of water at the same temperature (measured by %)
6	Wind Speed at 3m ()	Not Available	0 %	Average wind speed at 3 meters height (measured by m/s)

Figure 71: View Order Details

Click on ⓘ icon next to the price to view a breakdown of cost details (Figure 72).



Pricing Per Month	User Type Discount %	User Type Discount Price	Time Period Discount %	Time Period Discount Price	No. Of Stations Discount %	No. Of Stations Discount Price	Total Discount Price	Total Price Per Month	Selected Duration Month(s)	Final Price (Selected Duration)
0	100	0	N/A	N/A	N/A	N/A	0	0	26	0

Figure 72: View Price Details

To proceed with confirming the order, click on “Checkout”. A popup message will appear to verify the user request (Figure 73).

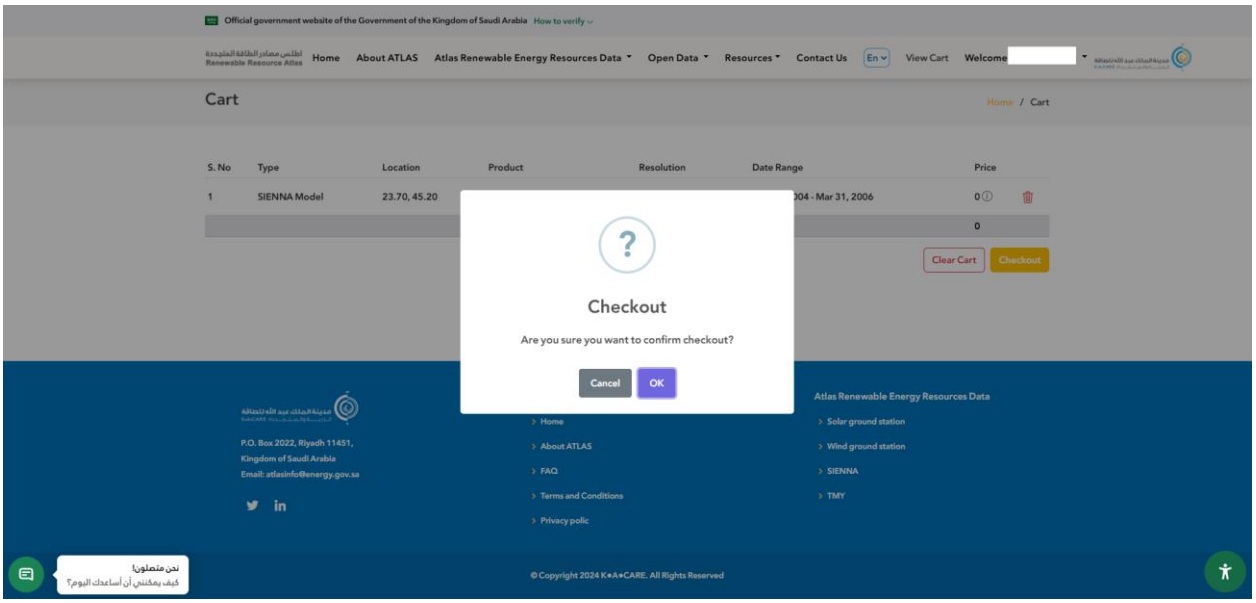


Figure 73: Checkout Process

Once verified, the user can view the quotation document (Figure 74), then proceed to the next step to place the order by clicking “Next Step”.

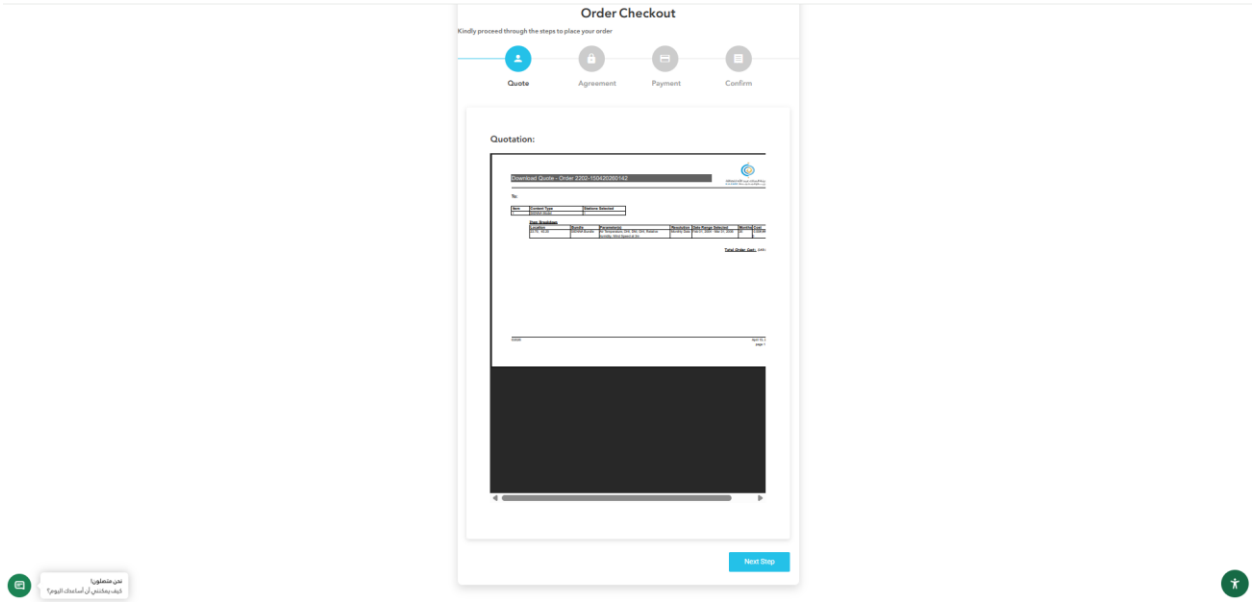


Figure 74: Order Quotation

The user shall review the data sharing agreement and check the box to agree and process the order (Figure 75).

Figure 75: Data Sharing Agreement

The user shall follow the on-screen payment instructions (Figure 76).

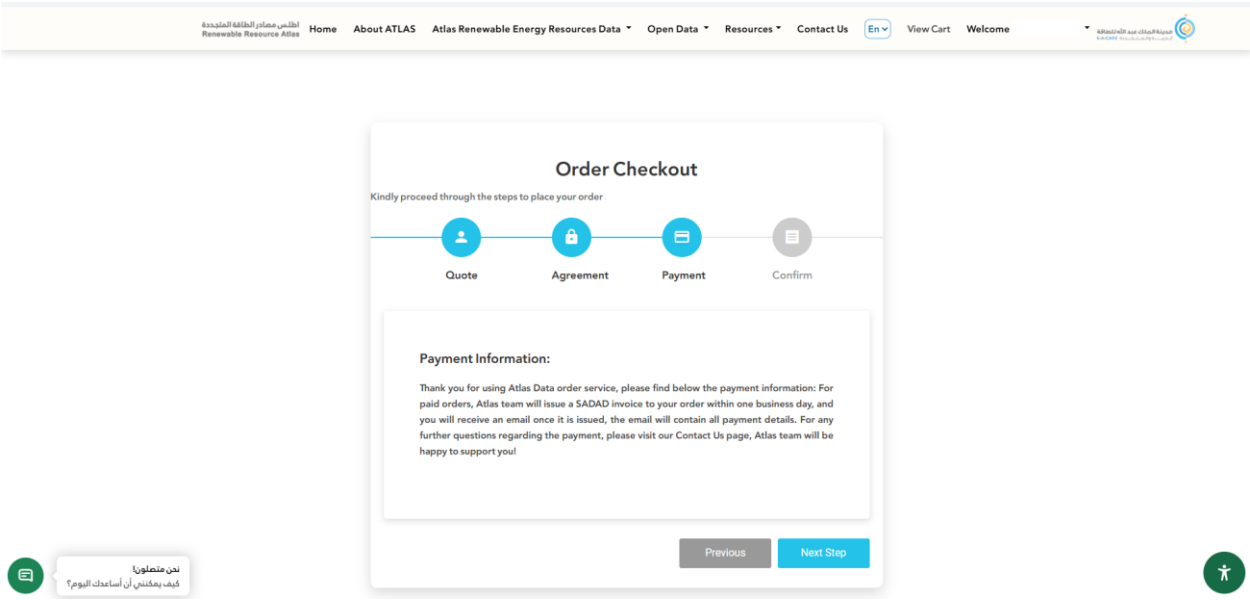


Figure 76: Payment Process

Review the final order details and click on “Submit” (Figure 77).

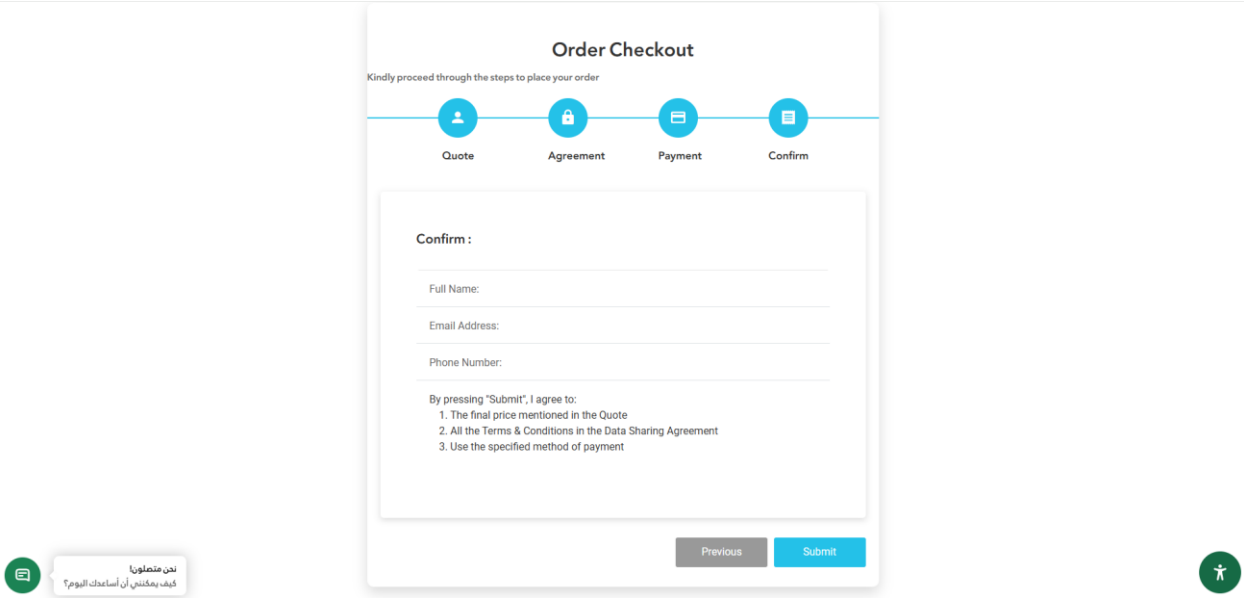


Figure 77: Order Confirmation

Once the order request is approved, locate the automated email sent to the user email inbox. This email confirms that the order is ready to be downloaded (Figure 78).

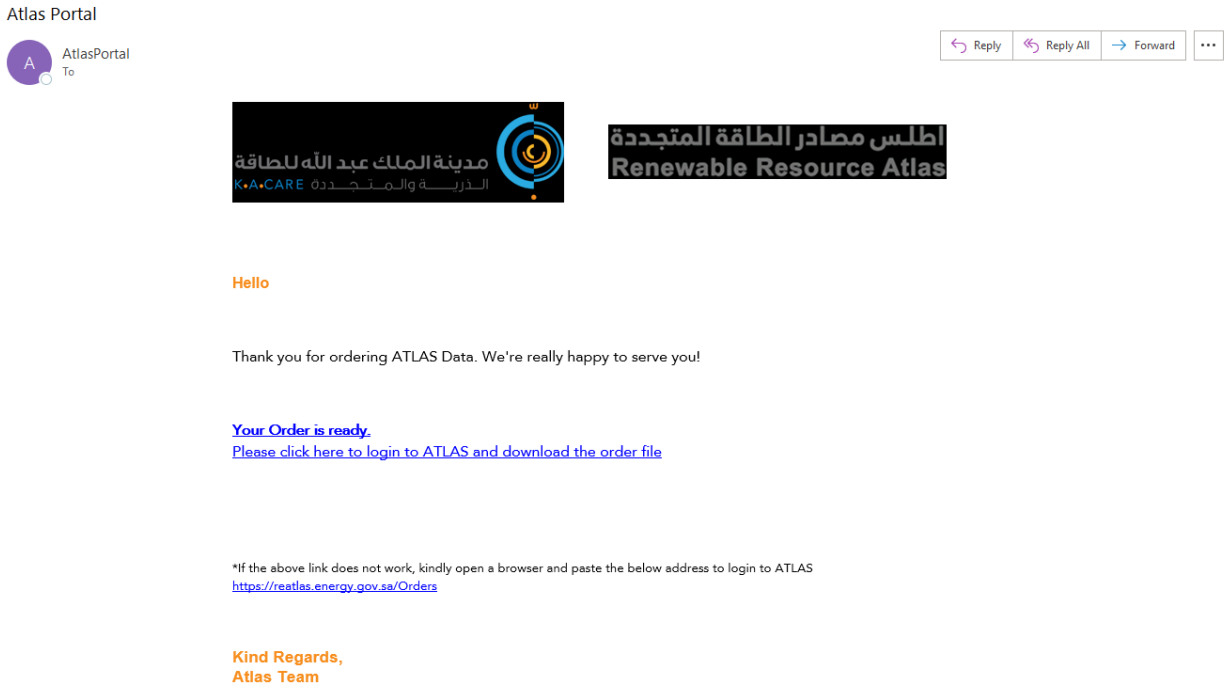


Figure 78: Approved Request Email

Click the access link provided within the email body, which will open the platform in the web browser. Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 79).

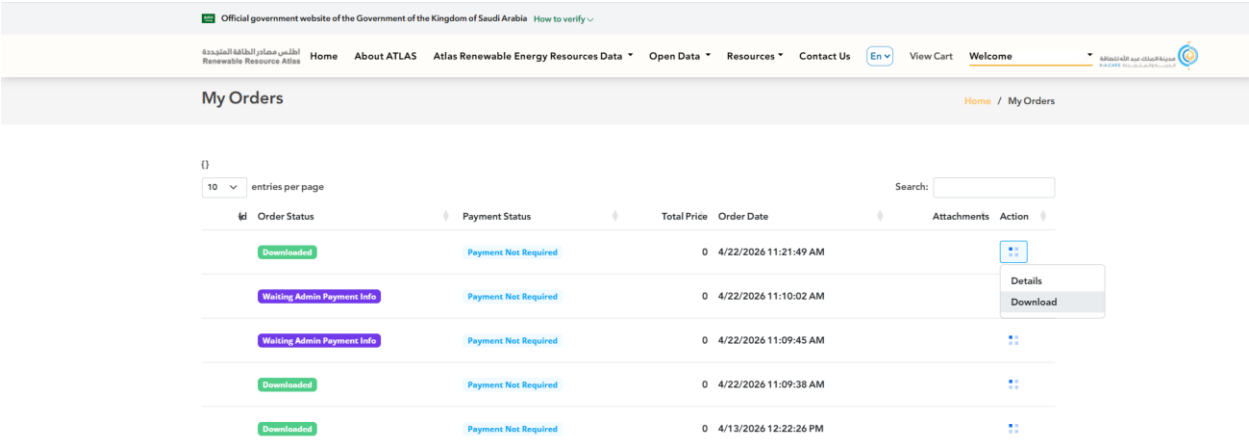


Figure 79: Download Menu

Alternatively, navigate to the top-right corner of the browser window and click on the Profile tab, then “My Orders” tab (Figure 80).

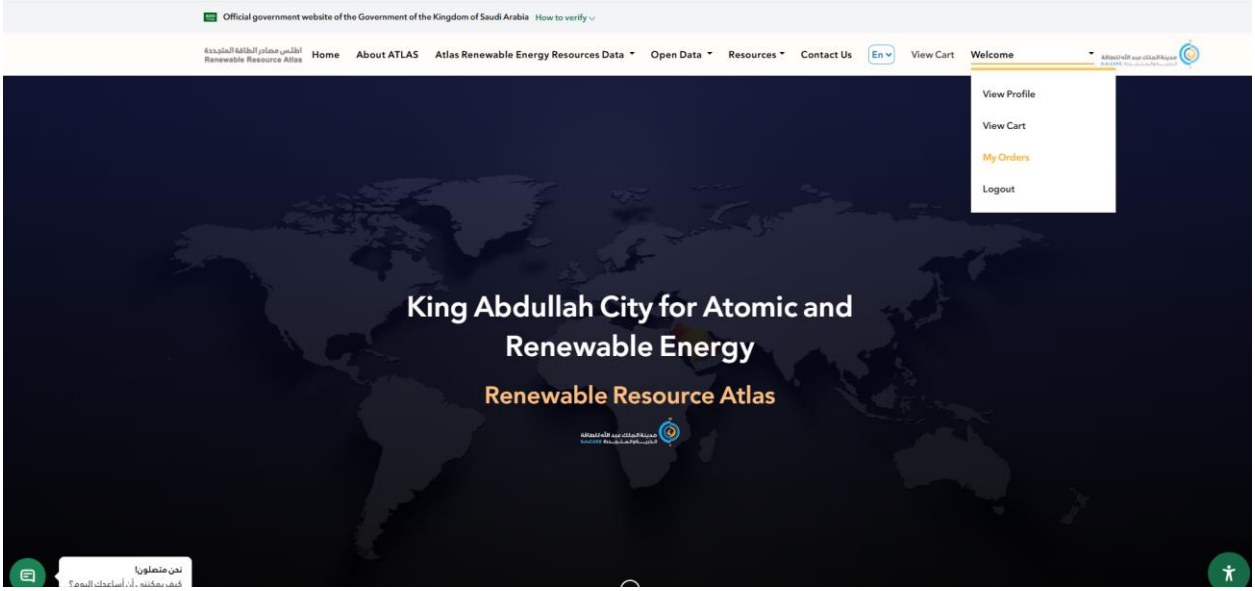


Figure 80: My Orders Tab

Locate the specific request in the order list. On the right-hand side of the order, click “Actions” button. Select the “Download” option from the menu to save the request files on your device (Figure 81).

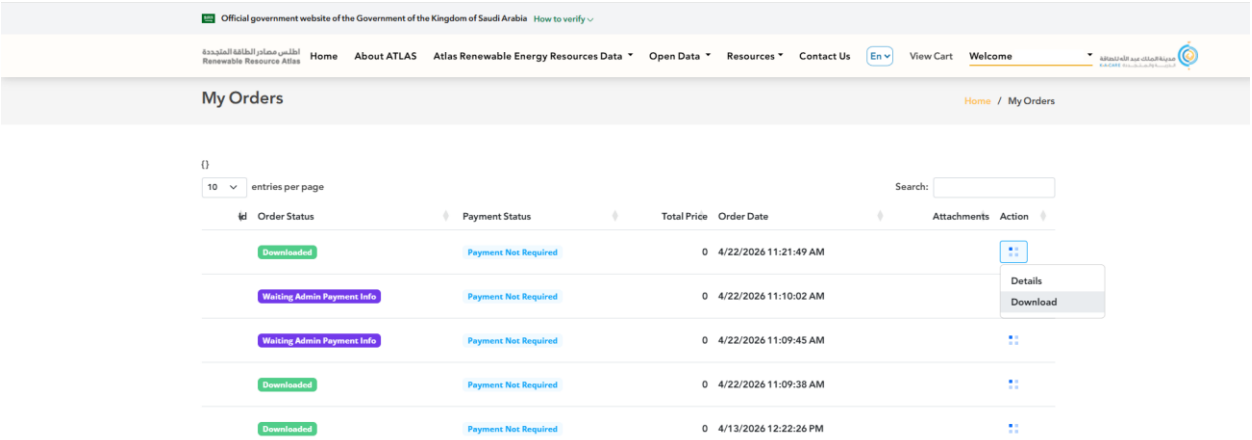
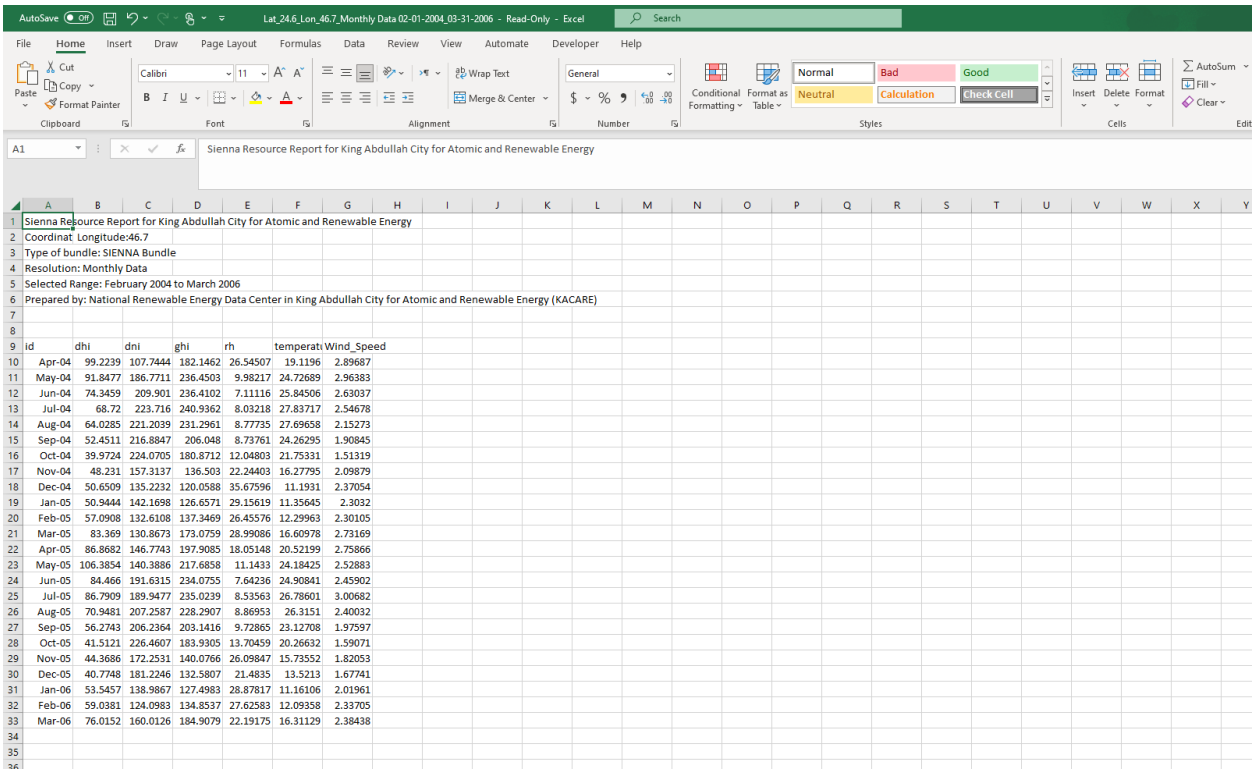


Figure 81: Download Menu

Once the request is approved, the dataset becomes available for download in CSV format (Figure 82).



Sienna Resource Report for King Abdullah City for Atomic and Renewable Energy
Coordinat Longitude:46.7
Type of bundle: SIENNA Bundle
Resolution: Monthly Data
Selected Range: February 2004 to March 2006
Prepared by: National Renewable Energy Data Center in King Abdullah City for Atomic and Renewable Energy (KACARE)

id	dhi	dni	ghi	rh	temperati	Wind_Speed
Apr-04	99.2239	107.7444	182.1462	26.54507	19.1196	2.89687
May-04	91.8477	186.7711	236.4503	9.98217	24.72689	2.96383
Jun-04	74.3459	209.901	236.4102	7.11116	25.84506	2.63037
Jul-04	68.72	223.716	240.9362	8.03218	27.83717	2.54678
Aug-04	64.0285	221.2039	231.2961	8.77735	27.69658	2.15273
Sep-04	52.4511	216.8847	206.048	8.73761	24.26295	1.90845
Oct-04	39.9724	224.0705	180.8712	12.04803	21.75331	1.51319
Nov-04	48.231	157.3137	136.503	22.24403	16.27795	2.09879
Dec-04	50.6509	135.2232	120.0588	35.67596	11.1931	2.37054
Jan-05	50.9444	142.1698	126.6571	29.15619	11.35645	2.3032
Feb-05	57.0908	132.6108	137.3469	26.45576	12.29963	2.30105
Mar-05	83.369	130.8673	173.0759	28.99086	16.60978	2.73169
Apr-05	86.8682	146.7743	197.9085	18.05148	20.52199	2.75866
May-05	106.3854	140.3886	217.6858	11.1433	24.18425	2.52883
Jun-05	84.466	191.6315	234.0755	7.64236	24.90841	2.45902
Jul-05	86.7909	189.9477	235.0239	8.53563	26.78601	3.00682
Aug-05	70.9481	207.2587	228.2907	8.86953	26.3151	2.40032
Sep-05	56.2743	206.2364	203.1416	9.72865	23.12708	1.97597
Oct-05	41.5121	226.4607	183.9305	13.70459	20.26632	1.59071
Nov-05	44.3686	172.2531	140.0766	26.09847	15.73552	1.82053
Dec-05	40.7748	181.2246	132.5807	21.4835	13.5213	1.67741
Jan-06	53.5457	138.9867	127.4983	28.87817	11.16106	2.01961
Feb-06	59.0381	124.0983	134.8537	27.62583	12.09358	2.33705
Mar-06	76.0152	160.0126	184.9079	22.19175	16.31129	2.38438

Figure 82: Downloaded Dataset

In the Atlas platform, there is a feature that allows users to compare two stations and analyze their behavior. To begin using this service, click on “Request Service” (Figure 83).

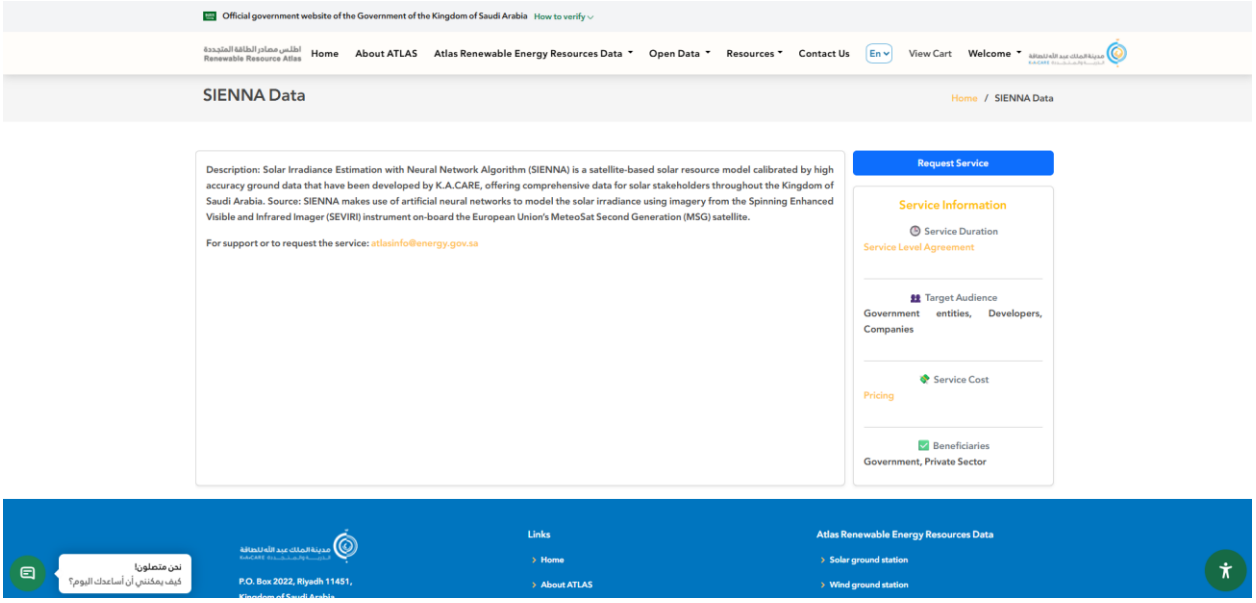


Figure 83: Request Service

Select the initial station name, then click on “Compare” to select the second station from the map (Figure 84).

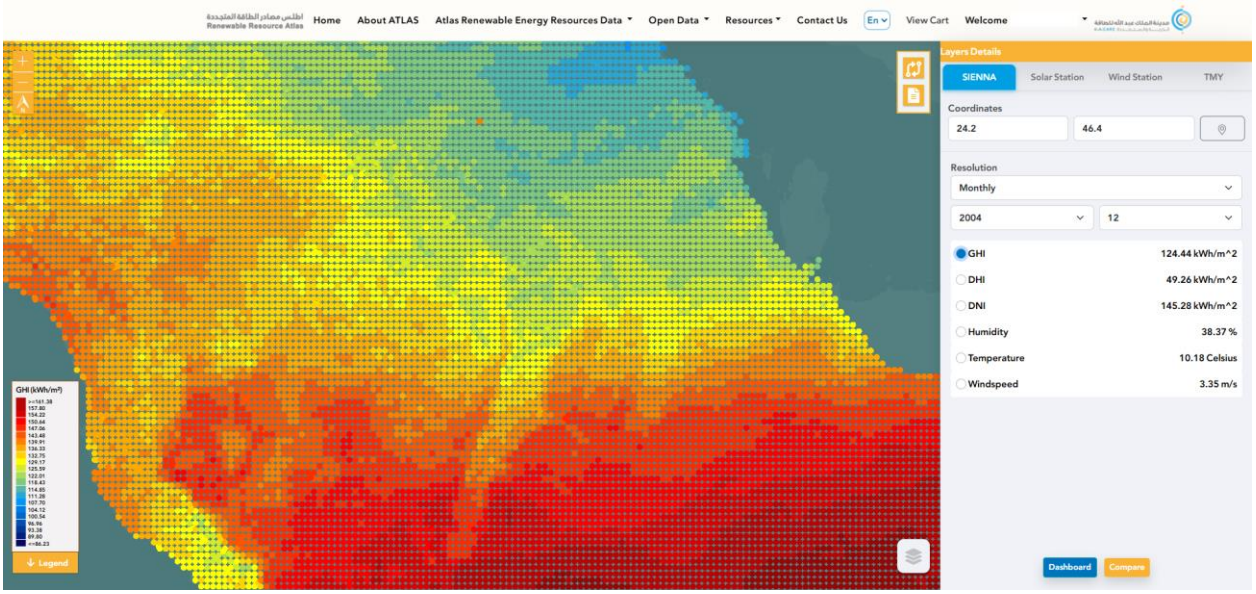


Figure 84: Compare Process

Afterwards both stations datasets are available for comparison, click on “Start Compare” (Figure 85).

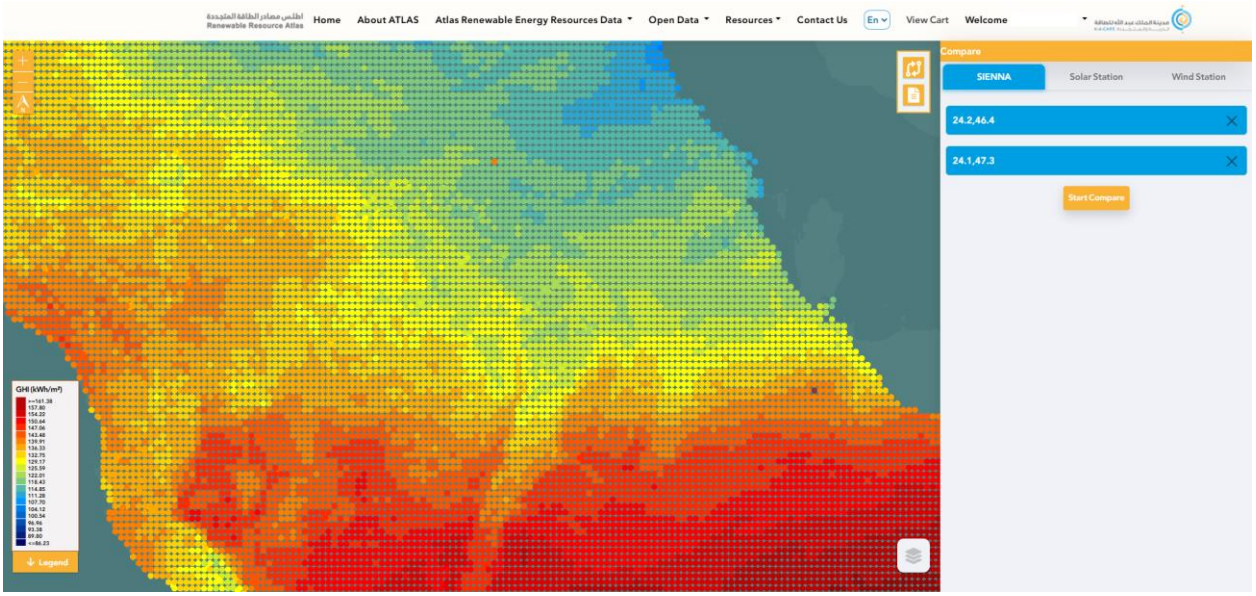


Figure 85: Start Compare Process

Then the “Dashboard” configuration open, where the user can (Figure 86):

- Define aggregation level
- Select time range
- Customize parameters
- Display charts

The data can only be viewed through the comparison feature and not downloaded.

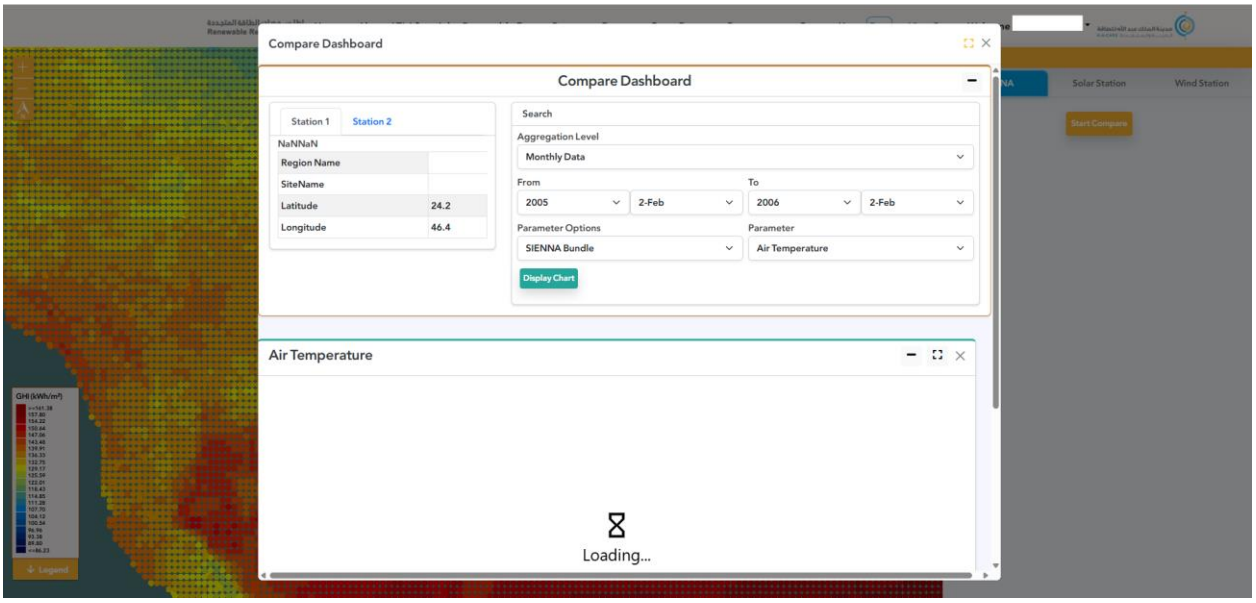


Figure 86: Dashboard Configuration

iv. TMY

The Typical Meteorological Year (TMY) service provides long-term, representative meteorological datasets. TMY time series have been constructed for the 50th percentile (average) conditions as well as for 90th percentile low-irradiance conditions. These datasets are commonly used for energy system design, feasibility studies, and performance simulations.

To begin the data request process, click on “Request Service” (Figure 87).

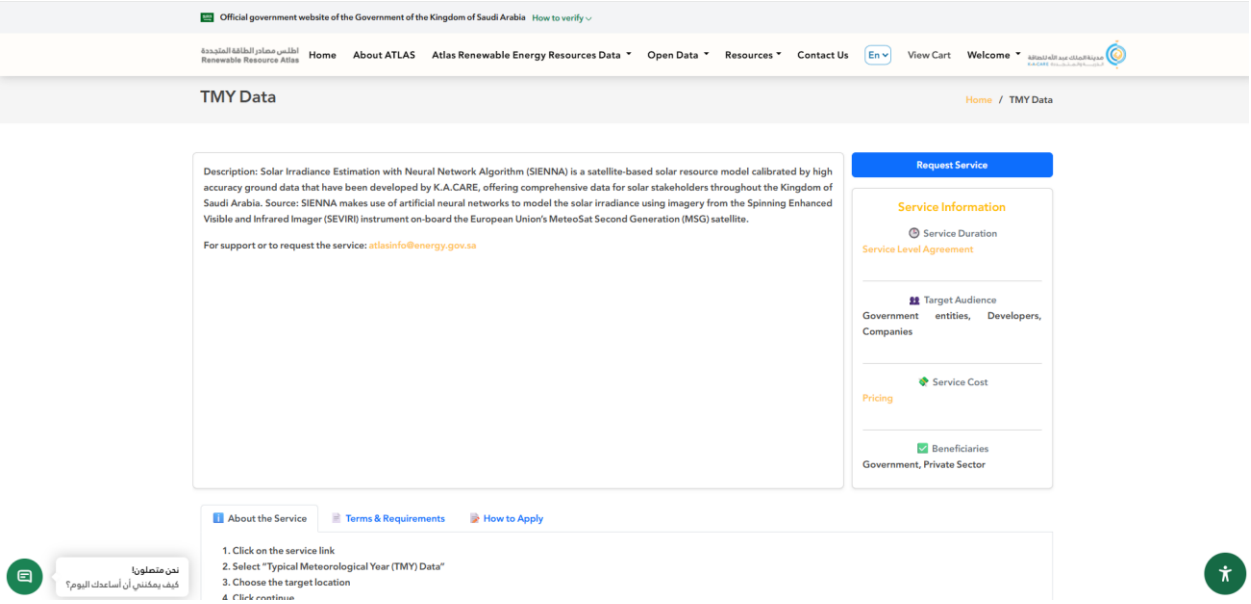


Figure 87: Request Service

On this page, the user can explore the pricing details by navigating to Service Cost section, clicking on “Pricing” within that section to review the full breakdown of fees before proceeding (Figure 88).

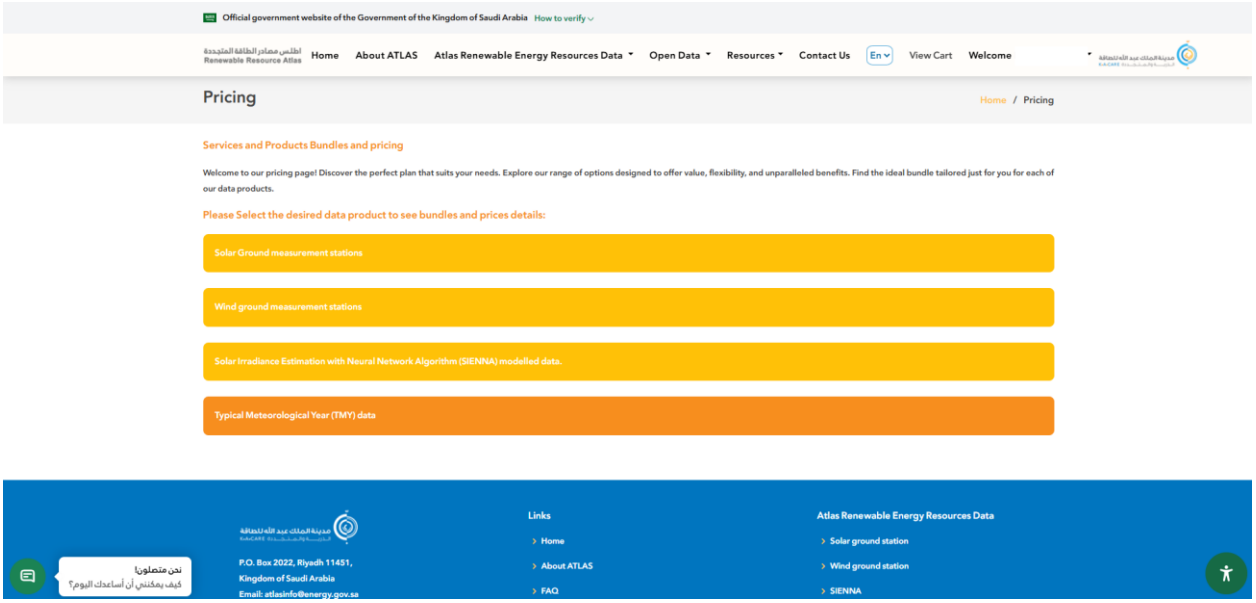


Figure 88: Pricing Details

Select the TMY resolution type and location coordinates to proceed with the request (Figure 89).

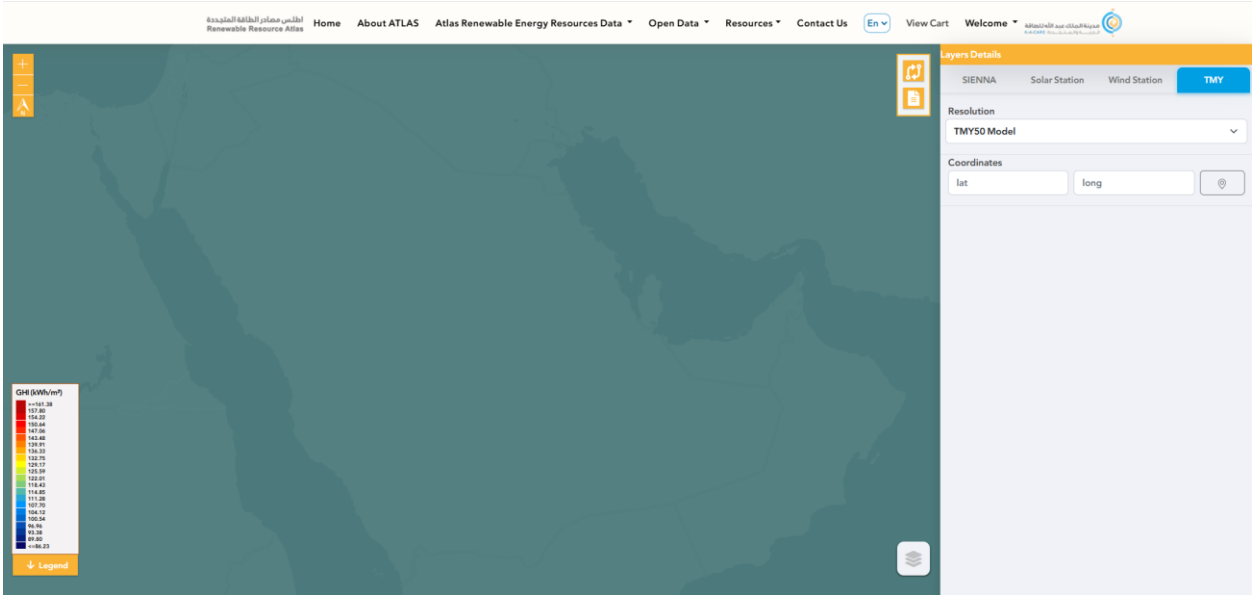


Figure 89: TMY Required Information

Open Data

The Open Data tab provides access to publicly available datasets and APIs related to renewable energy resources.

To access these services, navigate to the Open Data section from the platform toolbar (Figure 90).

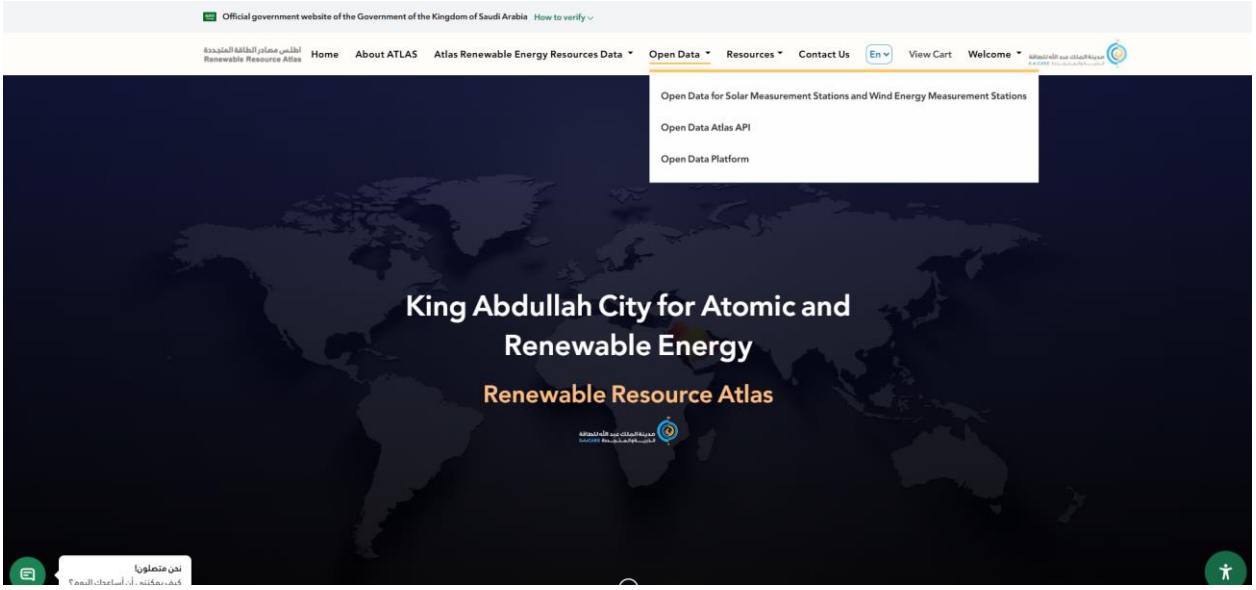


Figure 90: Open Data Tab

i. Open Data for Solar Measurement Stations and Wind Energy Measurement Stations

Under the Open Data tab, click on the service named “Open Data for Solar Measurement Stations and Wind Energy Measurement Stations”.

After selection, the platform will redirect the user to the open data services page, where solar and wind measurement datasets can be accessed (Figure 91).

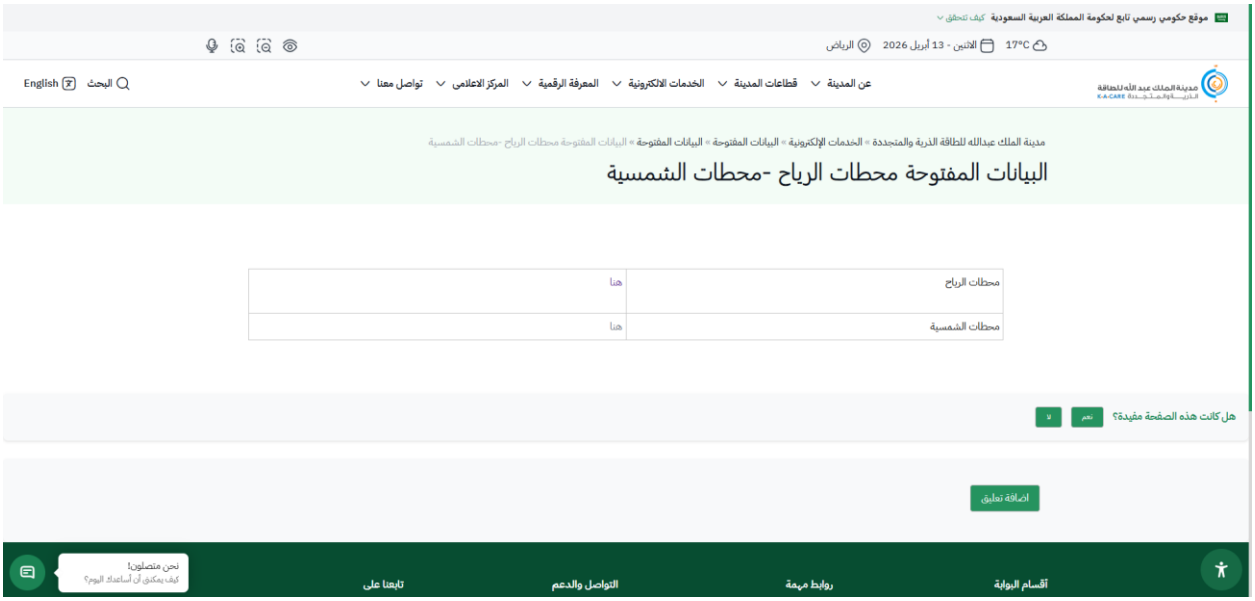


Figure 91: Open Data for Solar and Wind Page

ii. Open Data Atlas API

From the Open Data tab, click on the intended API service.

The user will be redirected to the open data platform (Figure 92), where API-based data services are available for integration and programmatic access.

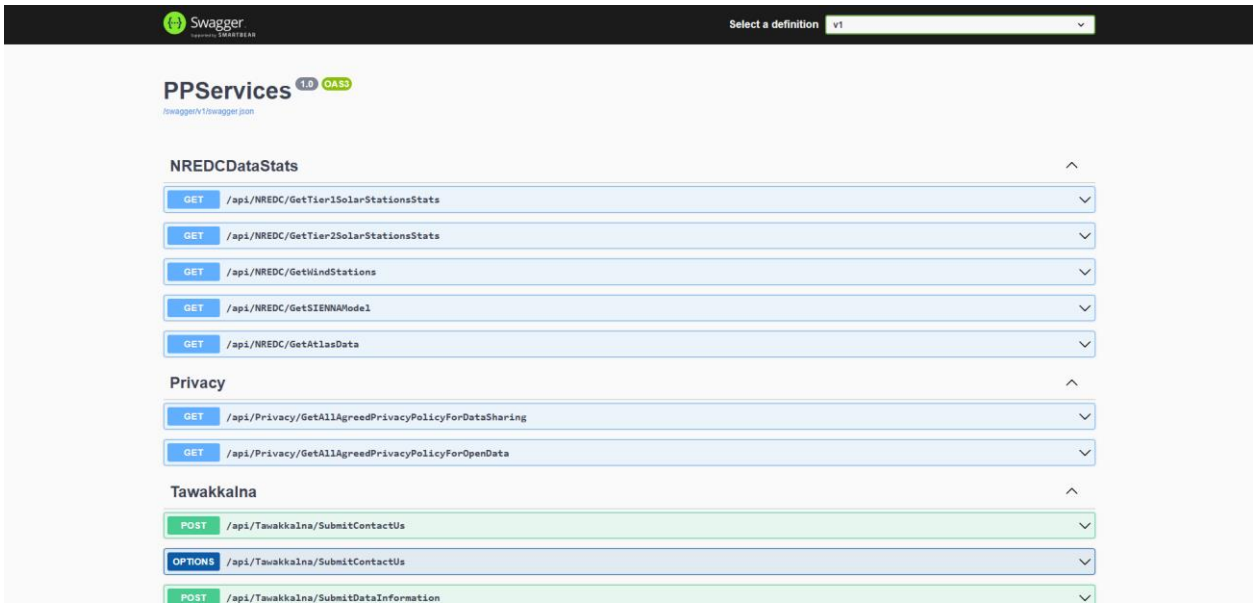


Figure 92: Open Data Atlas API

iii. Open Data Platform

Click on the Open Data Platform option within the Open Data tab.

The platform will redirect the user to the Saudi Open Data Platform (Figure 93), where datasets published by King Abdullah City for Atomic and Renewable Energy are available.

These datasets include a wide range of renewable energy and related data resources.

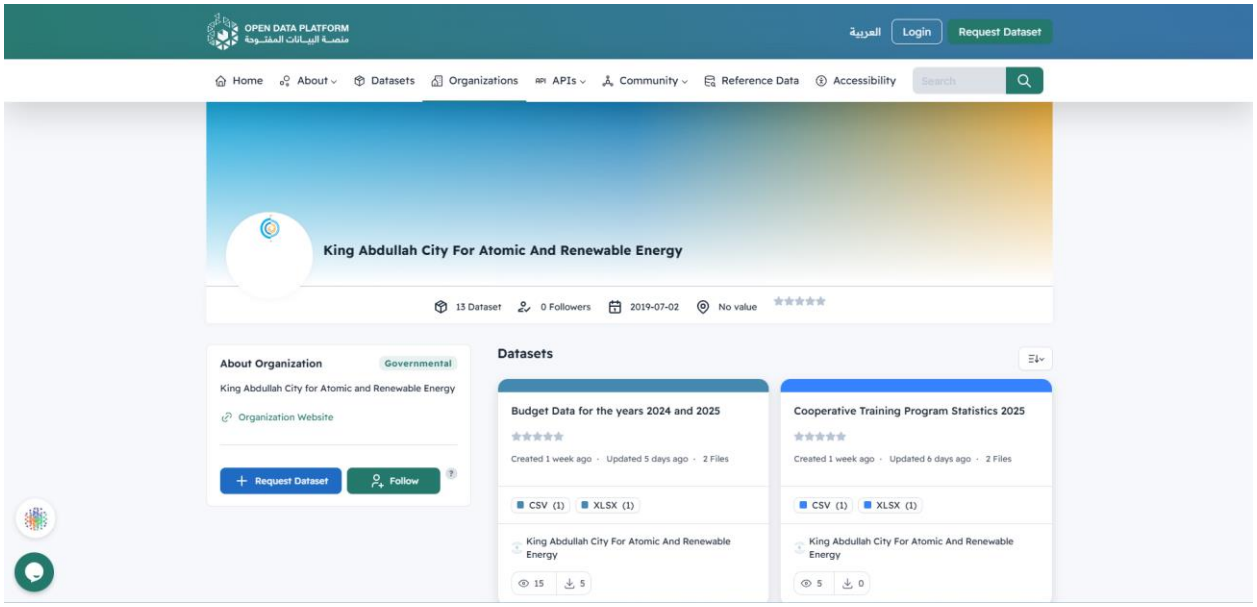


Figure 93: Open Data Platform

Resources

The Resources section provides users with access to supporting materials, technical information, and communication tools related to the Renewable Resource Atlas platform.

To access these resources, navigate to the Resources tab in the platform toolbar (Figure 94).

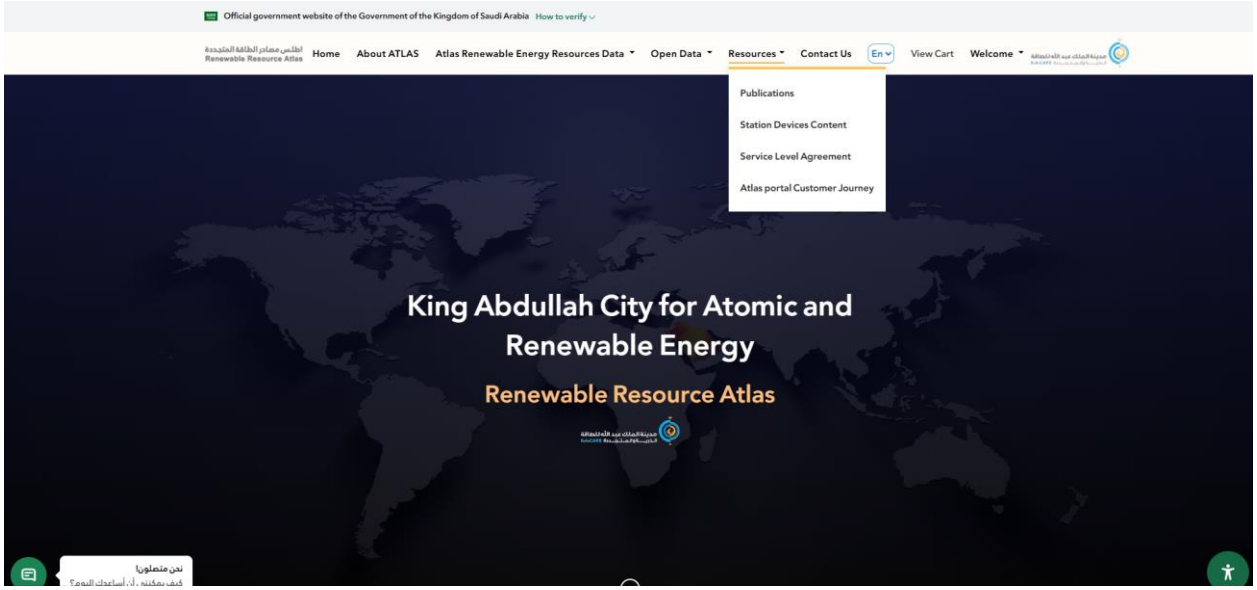


Figure 94: Resources Tab

i. Publications

Click on the “Publications” tab under the Resources section (Figure 95).

Users can browse and access publications developed in collaboration with national and international partners using Atlas data. These publications provide insights, research findings, and technical studies related to renewable energy.

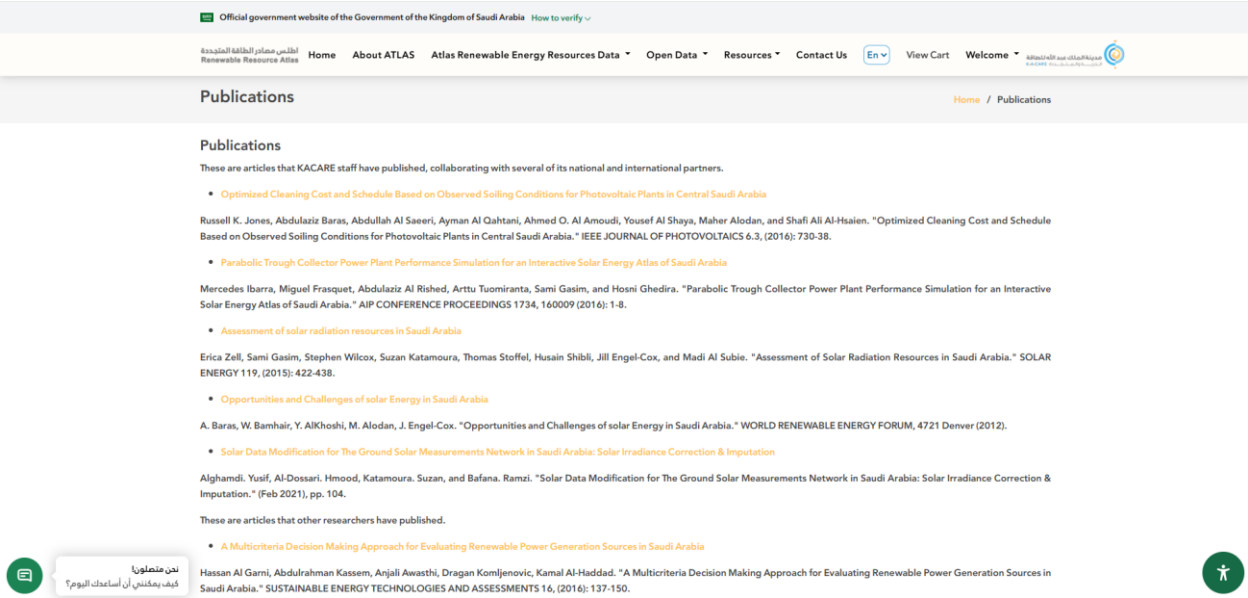


Figure 95: Publication Page

ii. Stations Devices Content

Click on the “Stations & Devices Content” tab.

This section provides a comprehensive overview of measurement stations operated by King Abdullah City for Atomic and Renewable Energy (Figure 96). These stations and instruments serve as a crucial point for gathering data pertaining to solar and wind energy.

Figure 96: Station and Devices Content

iii. Service Level Agreement

Click on the “Service Level Agreement” tab to access the document (Figure 97).

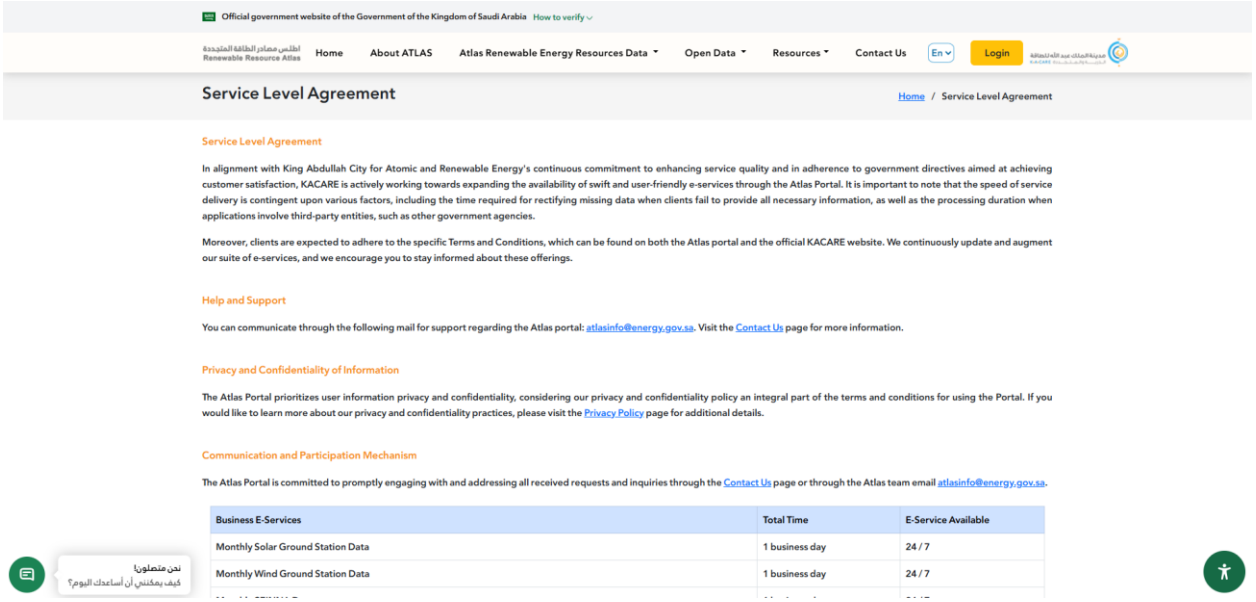


Figure 97: Service Level Agreement

iv. Atlas portal Customer Journey

Click on the “Atlas Portal Customer Journey” tab. Users can view a structured overview of the Atlas platform user journey, including key steps within the system (Figure 98).

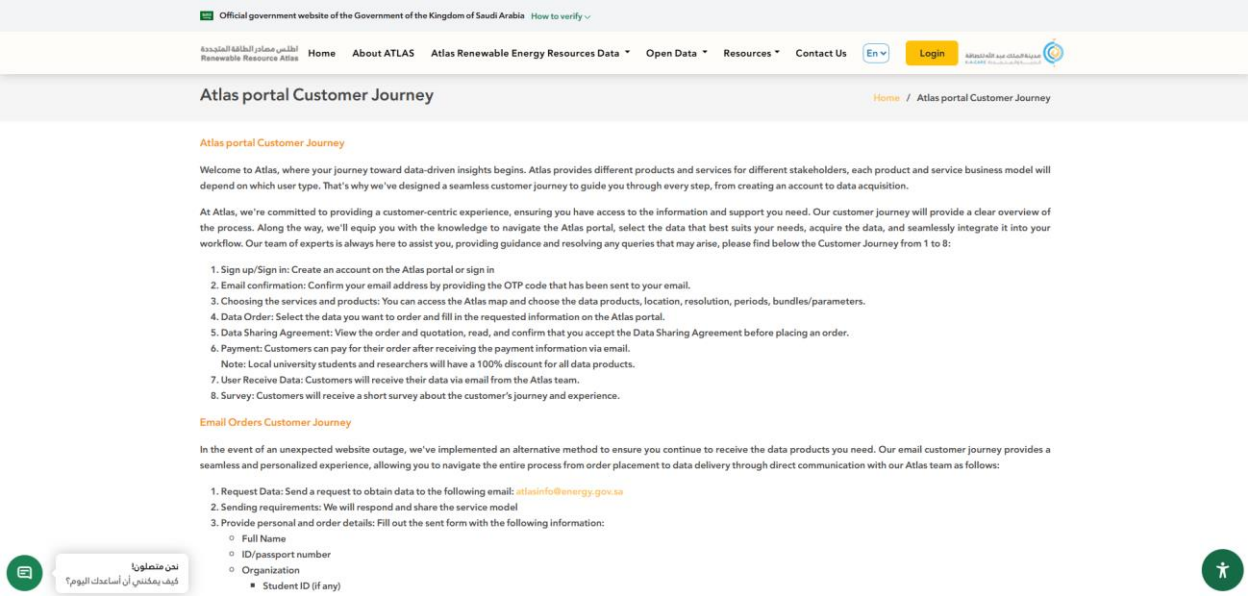


Figure 98: Atlas Portal Customer Journey

Contact Us

Click on the “Contact Us” tab. Use the contact form to send inquiries or request additional information regarding Atlas services. Enter the required details and submit the message to King Abdullah City for Atomic and Renewable Energy (Figure 99)

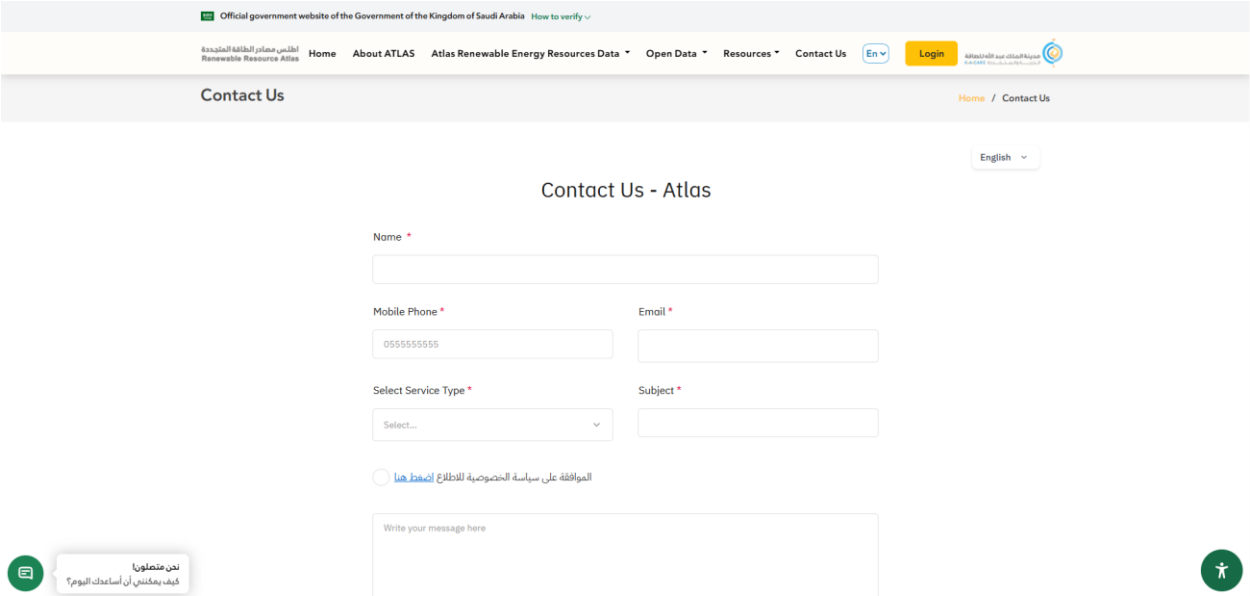


Figure 99: Contact Us Tab

Profile

Under the Profile tab (Figure 100), click to open the menu and navigate through the available options: view profile, view cart, my orders, and logout.

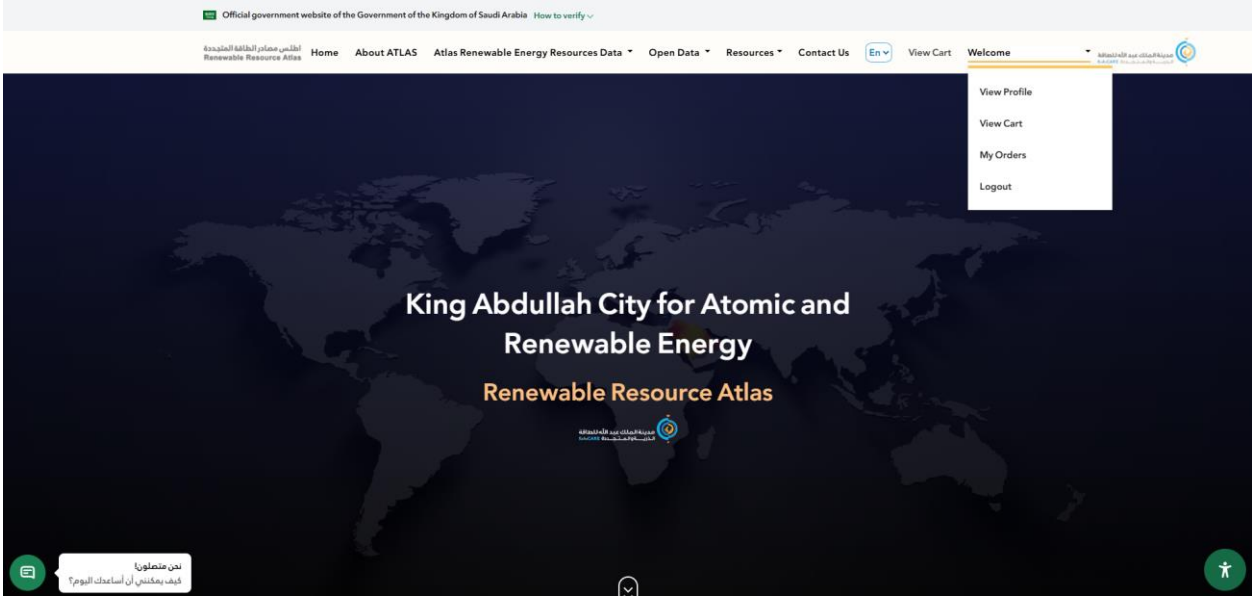


Figure 100: Profile Tab

i. View Profile

Select “View Profile” to access, review, and edit personal information (Figure 101).

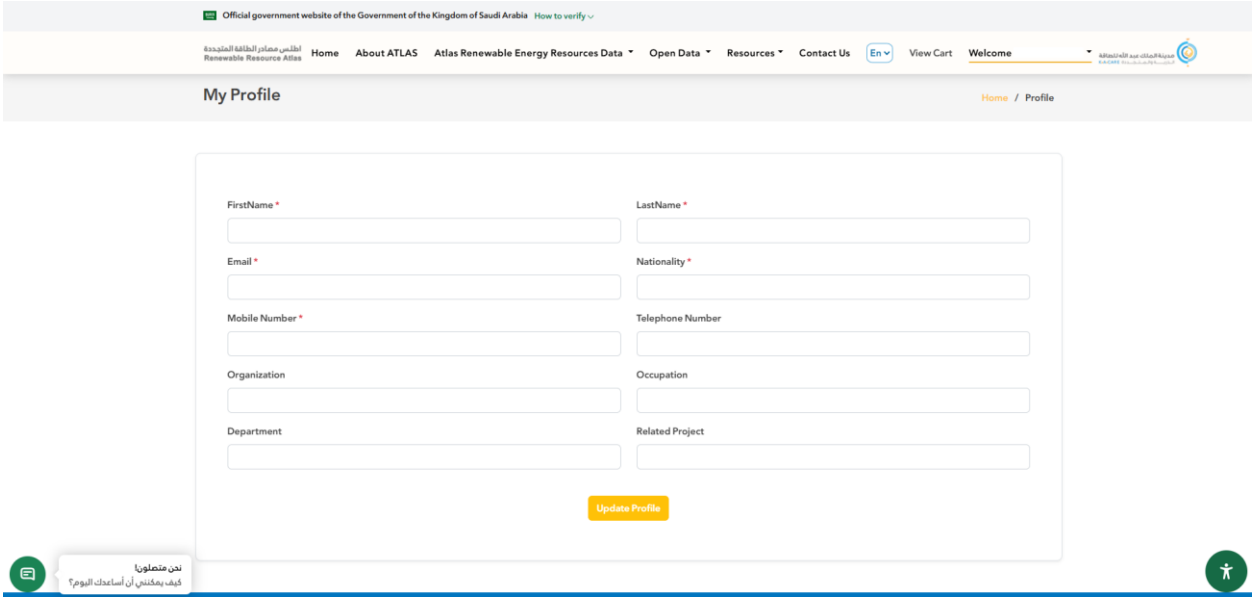


Figure 101: View Profile

ii. View Cart

Choose “View Cart” to see the items added to your cart (Figure 102).

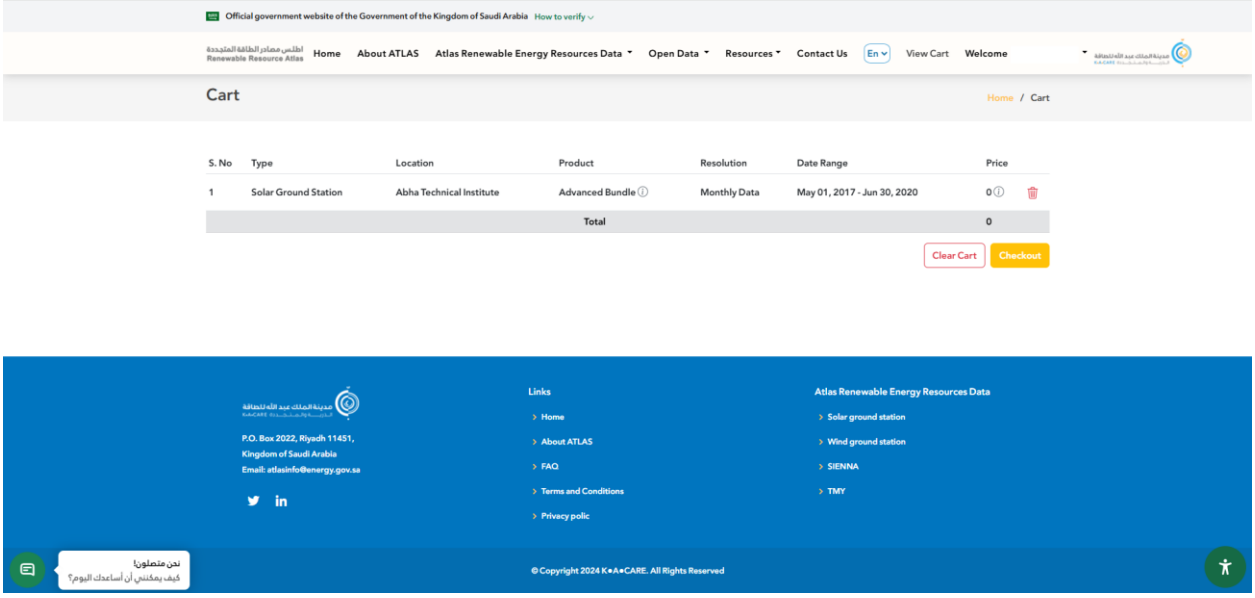


Figure 102: View Cart

iii. My Orders

Click on “My Orders” to track, review, and download previous orders (Figure 103).

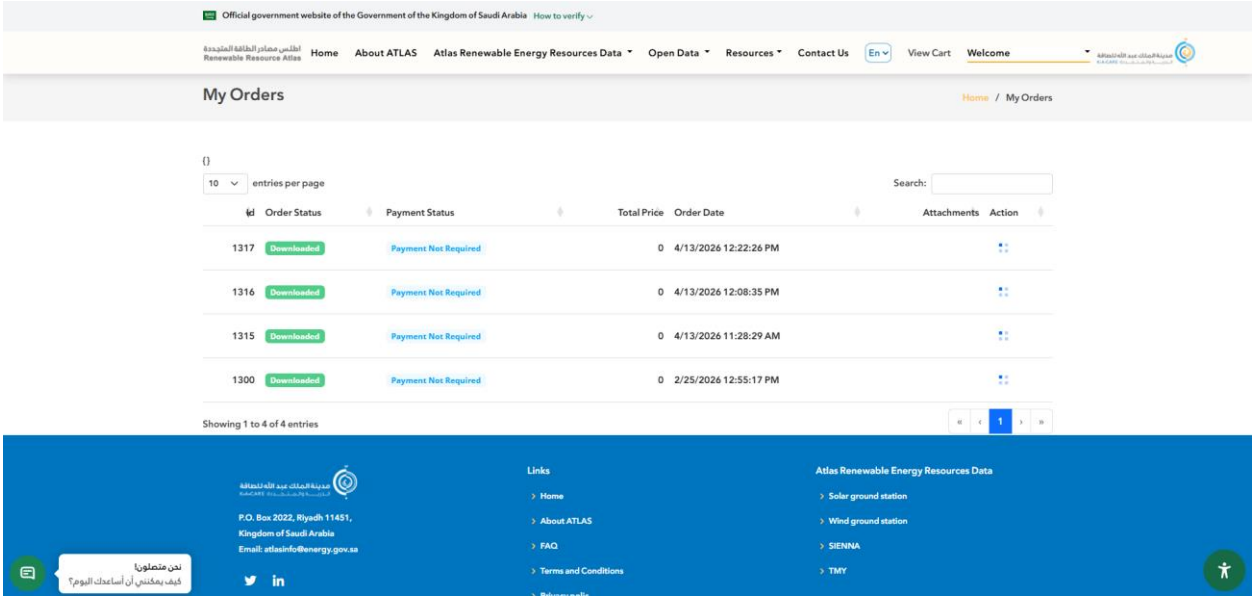


Figure 103: My Orders

iv. Logout

To exit the platform, select “Logout” (Figure 104).

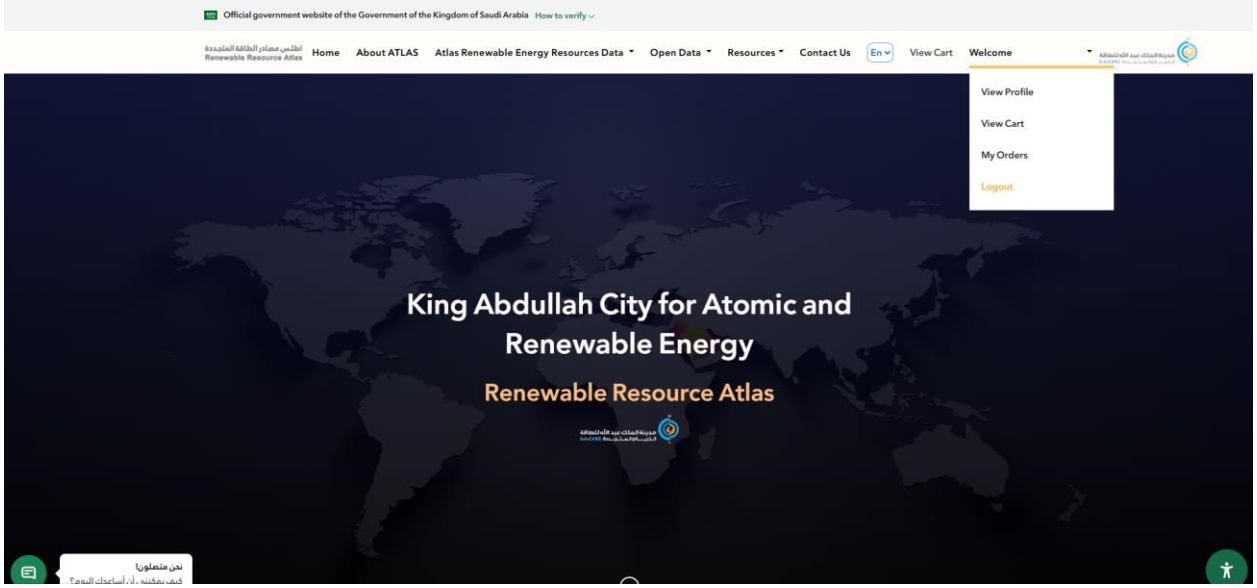


Figure 104: Logout

User Guide – Data and Information Request Service

The Data Sharing Service is one of the key services provided by K.A.CARE's Data Management Office. It enables government and private sector entities to share and exchange data securely and efficiently. The service also supports collaboration and contributes to better decision-making based on accurate and up-to-date data.

Service Description

The Data and Information Request Service allows government entities, companies, and individuals to submit formal requests for specific data or information held by K.A.CARE. The service aims to support transparency, facilitate research and development, and promote data-driven decision-making, in accordance with approved data governance and data protection policies.

Service Requirements

- The request must be clear and specific.
- The request must comply with applicable laws and regulations.
- The request must not include confidential or private information.

Service Completion Time

30 business days

Beneficiary Groups

Individuals - Government Sector - Private Sector

Data and Information Request Process

A. Service Access

To access the Data and Information Request Service, follow these steps:

1. Visit the online portal of King Abdullah City for Atomic and Renewable Energy
2. Select "Request Data &Information" Service from the E-Services menu.
3. Click Start Service to proceed to the request form.

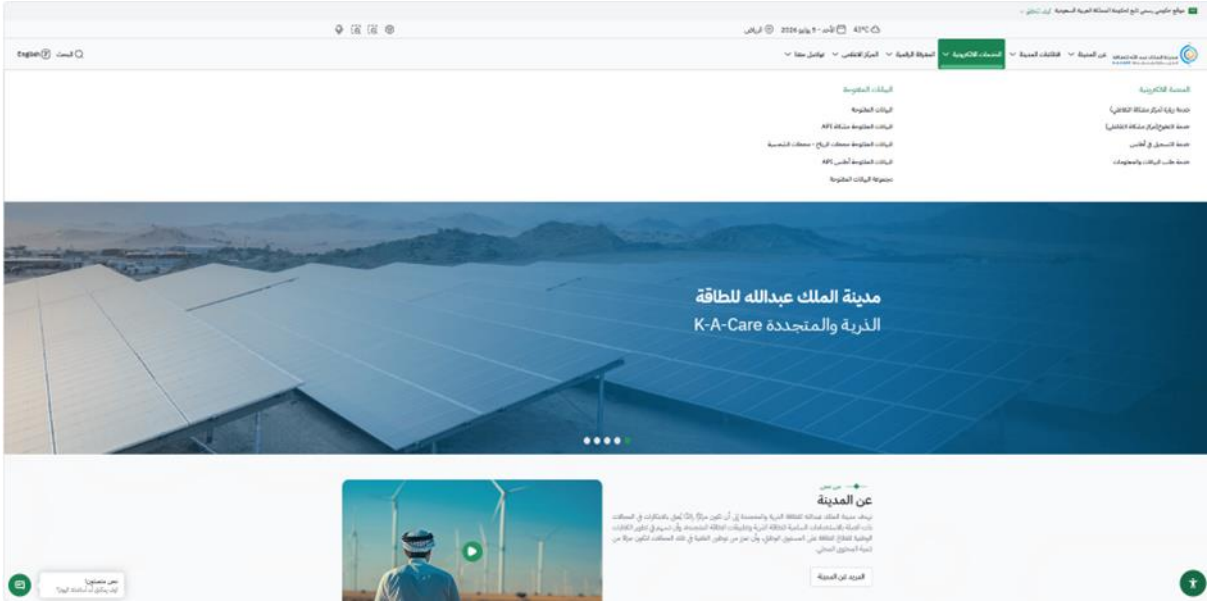


Figure 105: Accessing the Service Through K.A.CARE's Website

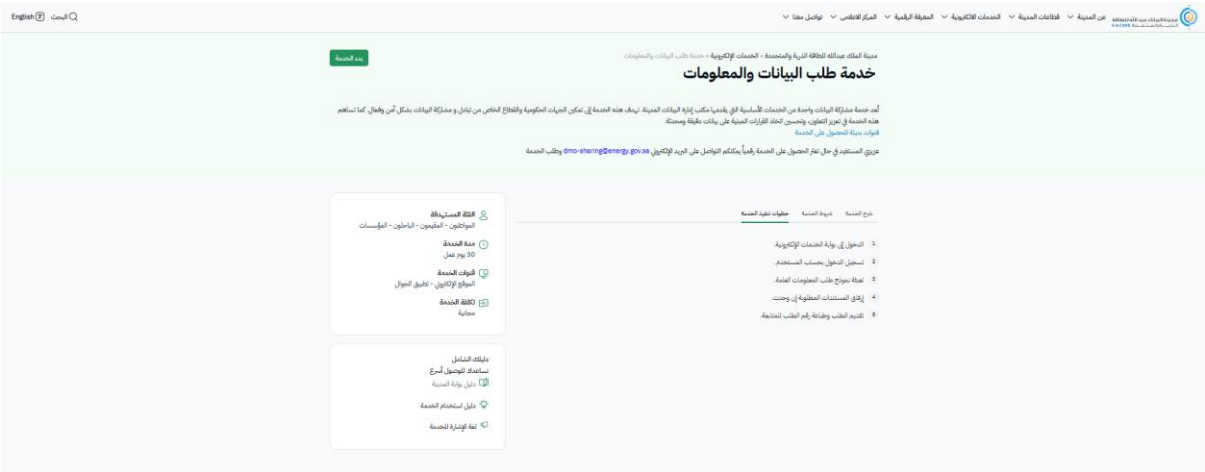


Figure 106: The Service Page on K.A.CARE's Website

B. Sign in Through Nafath

The users will be redirected to the National Unified Access (Nafath) platform to sign in and verify their identity.

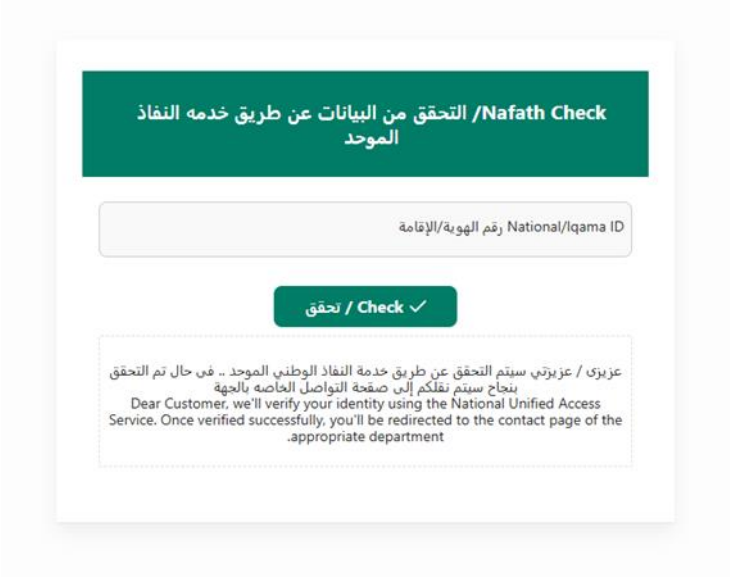


Figure 107: Signing in Through Nafath

Once you have successfully signed in, you will be redirected to the service request form to begin completing the request.

C. Applicant Information

This page displays the applicant information form. The user is required to fill their basic personal information, including full name, mobile number, email address, National ID number, Iqama number (Resident ID), or passport number, nationality, gender, region, and city. The user must also select the beneficiary group: Government Entity, Private Sector, or Individual. After completing all required fields, click Next to proceed to the next step.

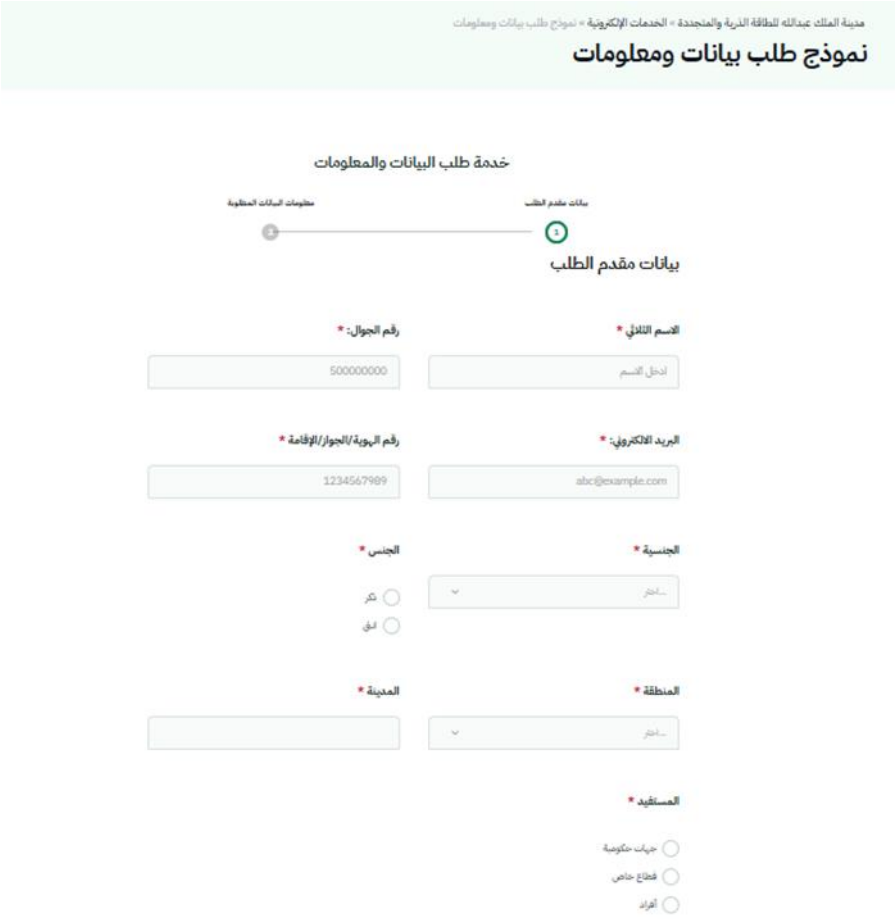


Figure 108: Applicant Information

Requested Data Details

This page allows the user to provide details about the requested data, including the data name and description, purpose of use, legal basis for the request, data type, required fields, and the period covered by the data. The user must also indicate whether the data contains personal information and specify the data destruction date based on the purpose of use.

If the request involves personal data, the user must provide details about the type and category of personal data, the category of data subjects, and whether the data is sensitive. The user must also provide the legal basis for sharing the data and specify the period of use. These details are required to ensure compliance with personal data protection requirements.

The user can review all entered information on this page before submitting the request. Once all information has been reviewed and the required fields have been completed, click Submit to send the request. The request will then be registered and processed. Its status can be tracked later using the request number.

D. Inquiries and Support

For any inquiries or further information about the service, users can contact the support team at: dmo-sharing@energy.gov.sa