

Service Catalogue K.A.CARE

How to Access E-Services

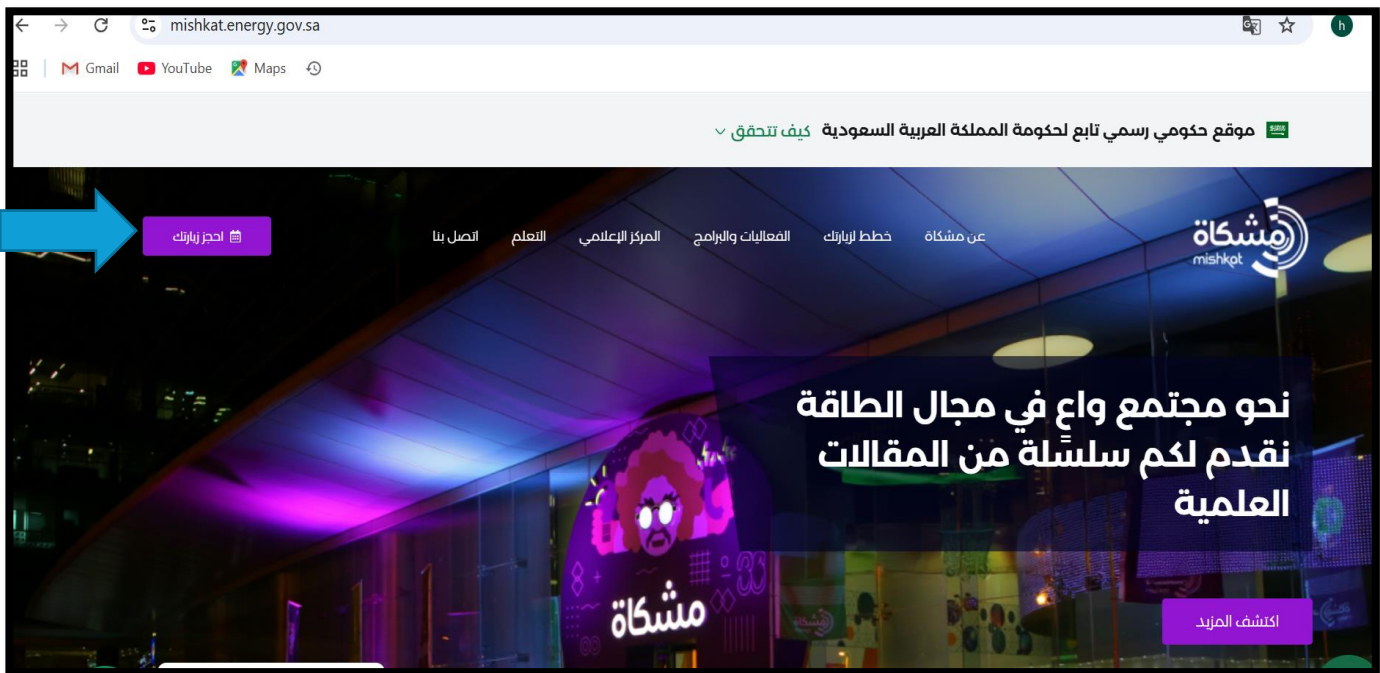
Beneficiaries can access all e-services through several available channels to ensure flexibility and ease of use. These channels are:

- 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"

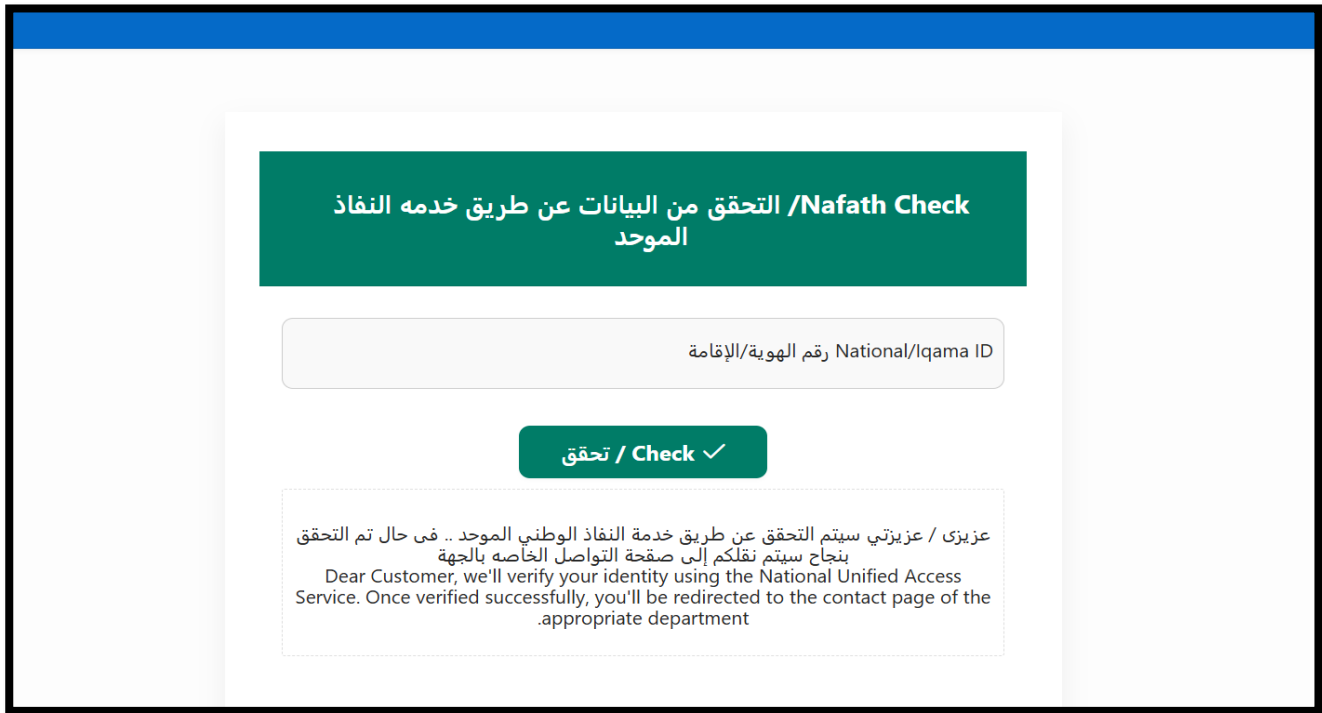


2. Click on "Start Service"



The screenshot shows the K.A.CARE website interface. At the top, there is a navigation bar with the website's name in Arabic and English, and a search bar. Below the navigation bar, there is a main content area with a green header. The header contains the text "مدينة الملك عبد الله للطاقة الذرية والمتجددة « الخدمات الإلكترونية » خدمة زيارة (مركز مشكاة التفاعلي)" and "خدمة زيارة (مركز مشكاة التفاعلي)". Below the header, there is a large green button labeled "بدء الخدمة" (Start Service) which is highlighted with a blue arrow. To the right of the button, there is a text block describing the service: "أنشئ مركز مشكاة التفاعلي لإلهام النشء ليكونوا مبتكري طاقة المستقبل يحتوي المركز على عدد من المعارض العلمية التفاعلية (الميكانيكية والإلكترونية والتزود بالمعلومات المفيدة حول الطاقة الذرية والمتجددة وكيفية الاستفادة من تطبيقاتها في حياتنا). قنوات بديلة للحصول على الخدمة عزيزي المستفيد في حال تعثر الحصول على الخدمة رقمياً يمكنك التواصل على البريد الإلكتروني info.mishkat@energy.gov.sa وطلب الخدمة". At the bottom of the page, there is a footer with a chatbot icon and a link to the service page.

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



The screenshot shows the Nafath Check service page. The page has a blue header with the text "Nafath Check / التحقق من البيانات عن طريق خدمة النفاذ الموحد". Below the header, there is a large input field for the National/Iqama ID. To the right of the input field, there is a green button labeled "تحقق / Check ✓". Below the button, there is a text block in Arabic and English explaining the service: "عزيزي / عزيزتي سيتم التحقق عن طريق خدمة النفاذ الوطني الموحد .. في حال تم التحقق بنجاح سيتم نقلكم إلى صفحة التواصل الخاصة بالجهة Dear Customer, we'll verify your identity using the National Unified Access Service. Once verified successfully, you'll be redirected to the contact page of the appropriate department".

- 

3

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

زيارة مركز مشكاة التفاعلي

حجز زيارة طلابية
المعلومات الشخصية

2
1

*** اسم المدرسة أو الجهة**

اسم المعلم المرافق

*** رقم الجوال**

*** الجنس**

*** الفئة العمرية**

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



المعلومات الشخصية 1

حجز زيارة طلابية 2

هل يوجد طلاب من ذوي الإحتياجات الخاصة؟ *

نعم لا

هل ترغب حجز فعالية أو عرض بانورامي أثناء زيارتكم؟ *

نعم لا

هل لديك ماتود لفت انتباهنا إلى أثناء حضورك؟ *

نعم لا

الموافقة على سياسة الخصوصية للاطلاع [اضغط هنا](#)

الموافقة على اللوائح [اضغط هنا](#)

إرسال البيانات

السابق

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

English العربية

عن المدينة

الخدمات الإلكترونية

المركز الاتصالي

تواصل معنا

مدينة الملك عبد الله للطاقة الذرية والمتجددة - الخدمات الإلكترونية - مركز مشكاة التفاعلي

مركز مشكاة التفاعلي

الترقية

زيارة مركز مشكاة التفاعلي

نشكر تواصلك، ونسعد بخدمتك خلال 5 أيام عمل

نحن متواصلون!
كيف يمكننا أن نساعدك اليوم؟

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:

- 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

Volunteer Service at Mishkat Interactive Center

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





9. Click on "Start Service"



English [x] البحث

عن المدينة ▾ قطاعات المدينة ▾ الخدمات الإلكترونية ▾ المعرفة الرقمية ▾ المركز الاعلامي ▾ تواصل معنا ▾

مدينة الملك عبد الله للطاقة الذرية والمتجددة « الخدمات الإلكترونية » خدمة التطوع (مركز مشكاة التفاعلي)

خدمة التطوع (مركز مشكاة التفاعلي)

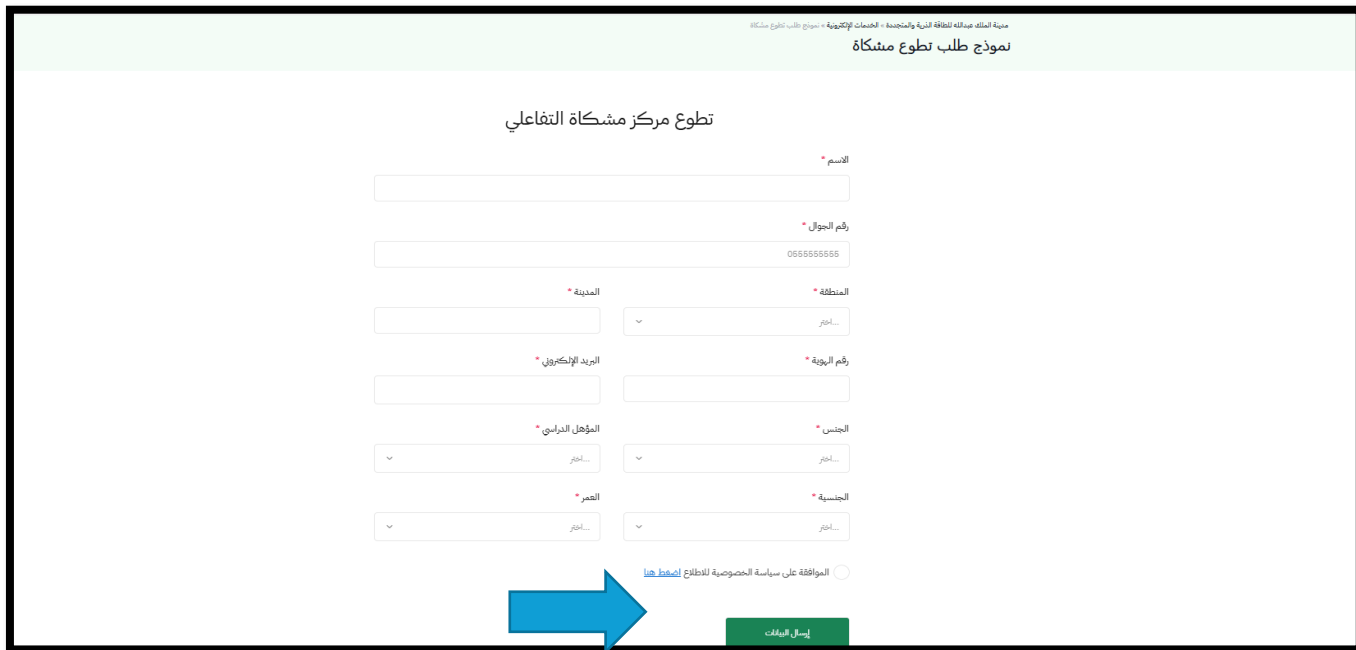
خدمة للتقدم للتطوع للعمل بمركز مشكاة

قنوات بديلة للحصول على الخدمة

عزيزي المستفيد في حال تعذر الحصول على الخدمة رقمياً يمكنك التواصل على البريد الإلكتروني info.mishkat@energy.gov.sa وطلب الخدمة

بدء الخدمة

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



مدينة الملك عبد الله للطاقة الذرية والمتجددة « الخدمات الإلكترونية » نموذج طلب تطوع مشكاة

نموذج طلب تطوع مشكاة

تطوع مركز مشكاة التفاعلي

الاسم *

رقم الجوال *

0555555555

المدينة *

المنطقة *

البريد الإلكتروني *

رقم الهوية *

المؤهل الدراسي *

الجنس *

العمر *

الجنسية *

الموافقة على سياسة الخصوصية للاطلاع [هنا](#)

إرسال البيانات





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

مدينة الملك عبد الله للطاقة الذرية والمتجددة « الخدمات الإلكترونية » نموذج طلب تطوع مشكاة
نموذج طلب تطوع مشكاة

تطوع مركز مشكاة التفاعلي

نشكر تواصلك، ونسعد بخدمتك خلال يومي عمل



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)

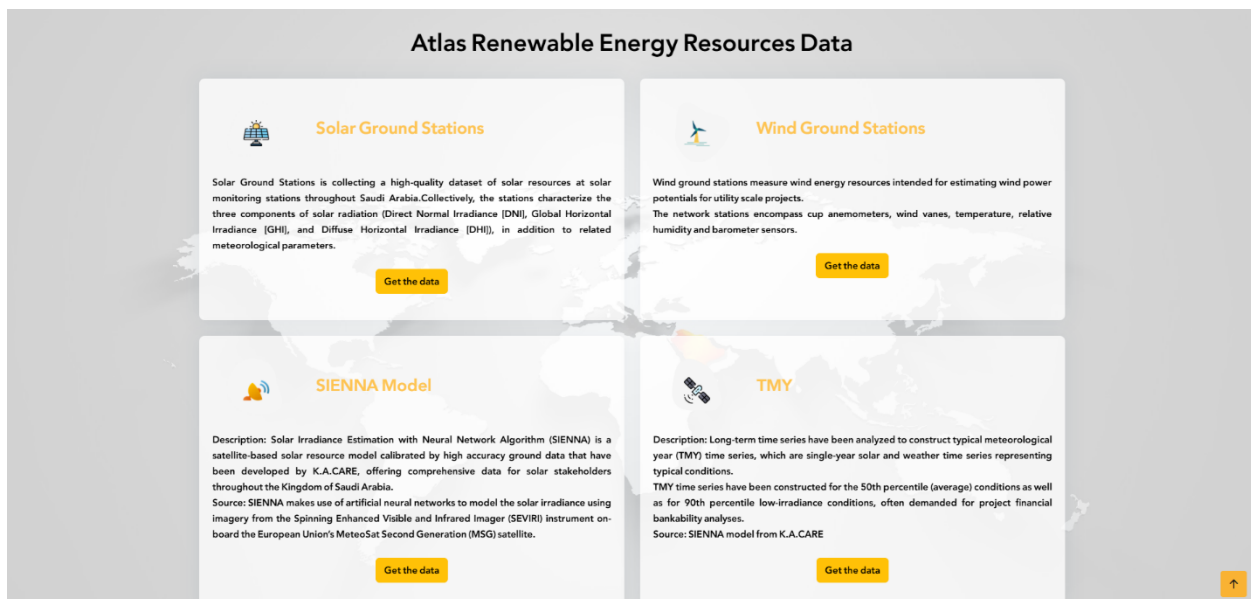


Figure 2: Atlas Renewable Energy Resources Data



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).

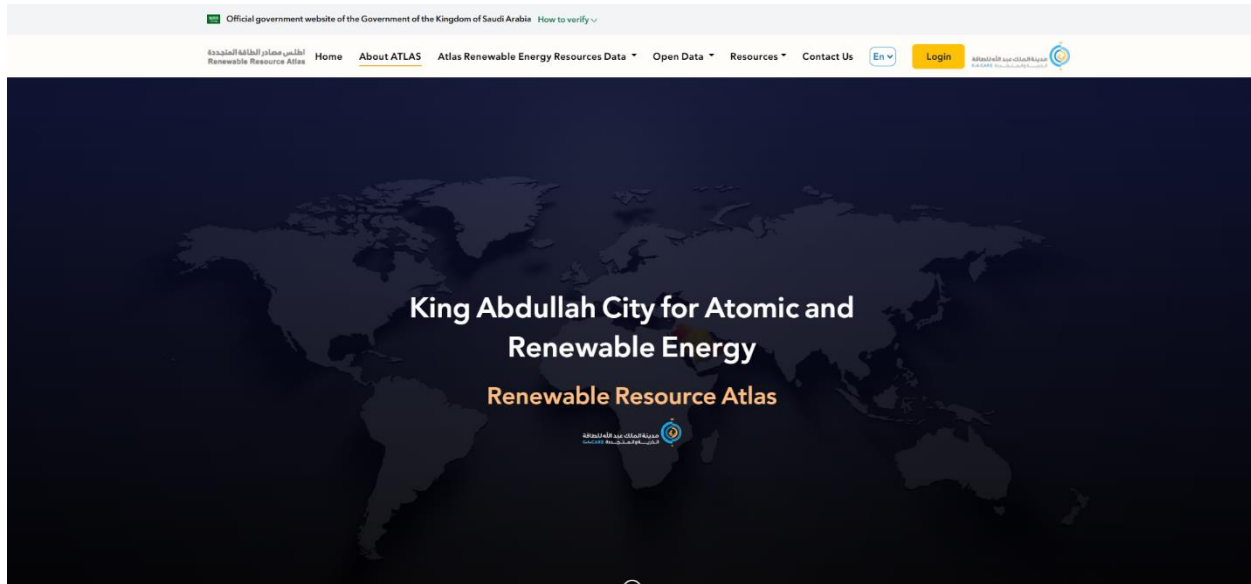


Figure 3: About ATLAS Tab

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?

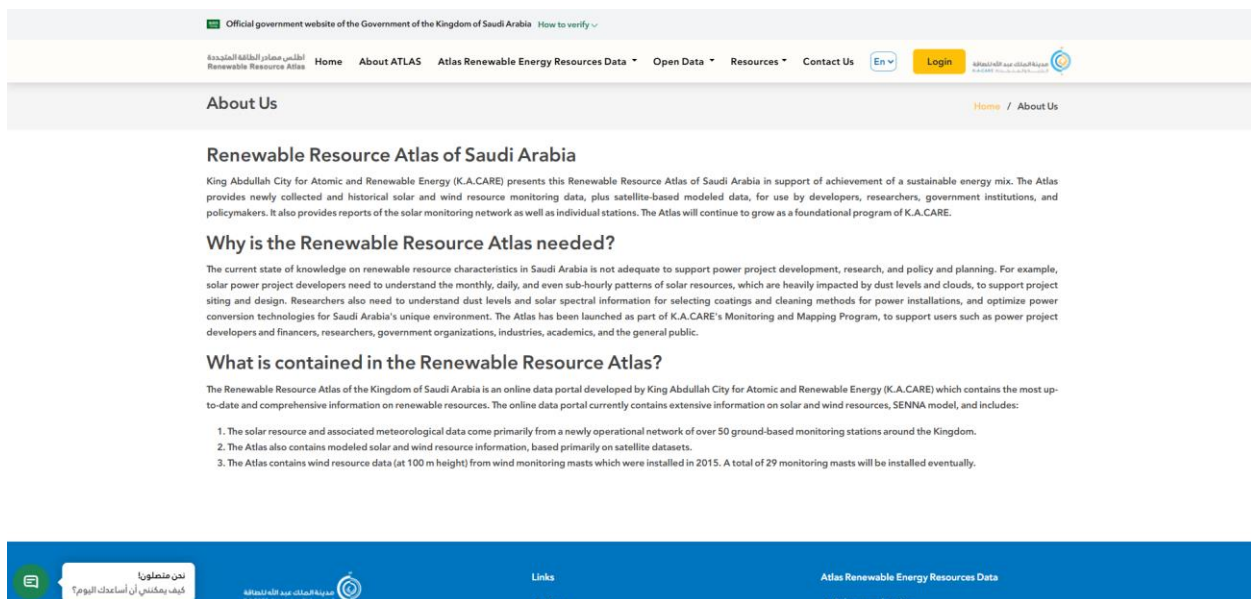


Figure 4: About ATLAS Page



Sign Up

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

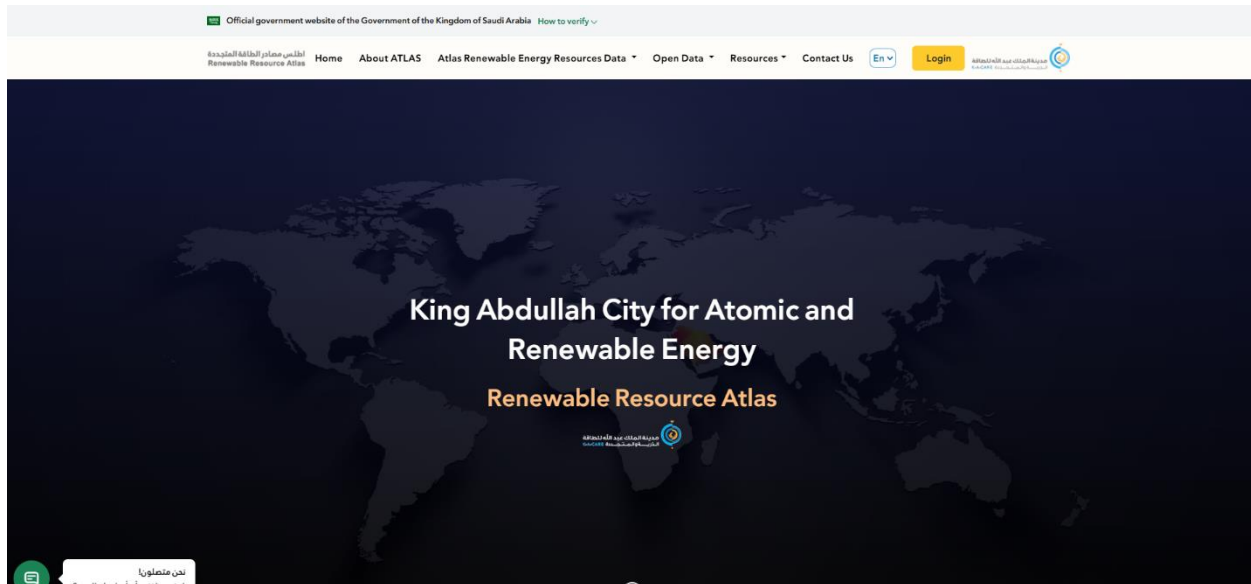


Figure 5: Login Tab

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

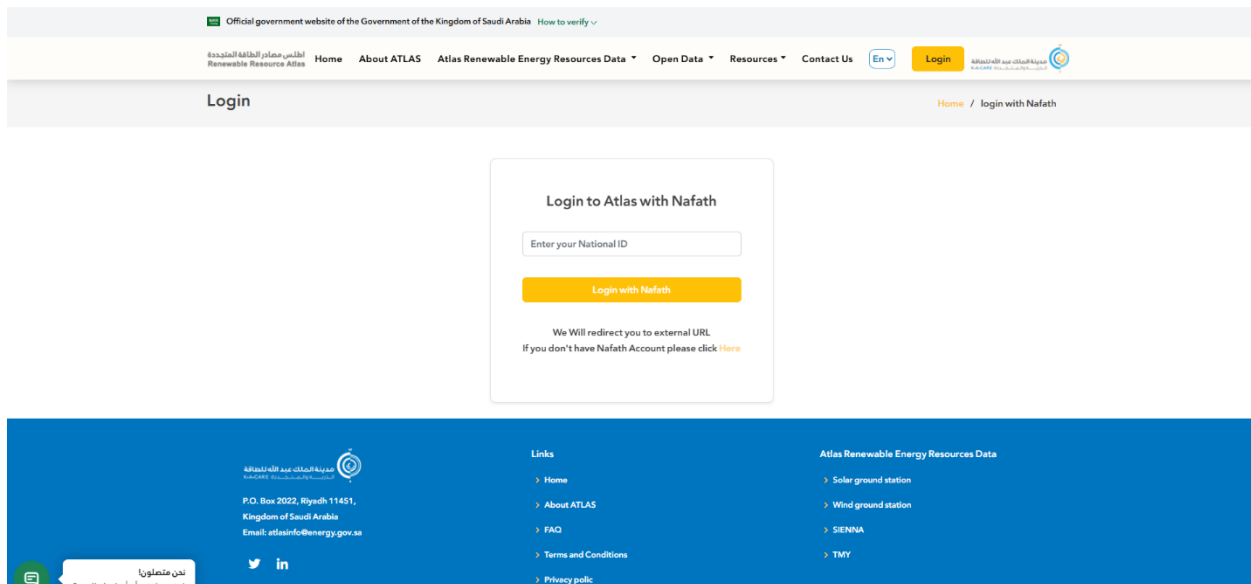


Figure 6: Sign Up Process



Then, click on “Sign up” (Figure 7).

The screenshot shows the official government website of the Kingdom of Saudi Arabia. The header includes the K.A.CARE logo and navigation links: Home, About ATLAS, Atlas Renewable Energy Resources Data, Open Data, Resources, and Contact Us. A 'Login' button is visible in the top right corner. Below the header, a 'Login to Atlas' form is displayed, featuring fields for Email and Password, a 'Remember me?' checkbox, a 'Forgot Password?' link, and a 'Login' button. A link to 'Sign up' is provided for users who do not have an account. The footer contains contact information, a 'Links' section with 'Home' and 'About ATLAS', and a section for 'Atlas Renewable Energy Resources Data' with links to 'Solar ground station' and 'Wind ground station'.

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.

The screenshot shows the 'Register' page of the Atlas Renewable Energy Resources Data website. The header includes the K.A.CARE logo and navigation links: Home, About ATLAS, Atlas Renewable Energy Resources Data, Open Data, Resources, and Contact Us. A 'Register' button is visible in the top right corner. Below the header, a 'Register' form is displayed, featuring fields for Registration Type, First Name, Last Name, Email, Nationality, Passport or ID, Gender, Region, City, Occupation, Organization, Phone Number, Telephone Number, Password, and Confirm Password. There are also checkboxes for 'Hear About Us', 'Receive newsletter about RE and Atlas Updates', 'I certify that all my information is correct', and 'I agree to the privacy policy'. A 'Register' button is located at the bottom of the form.

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.

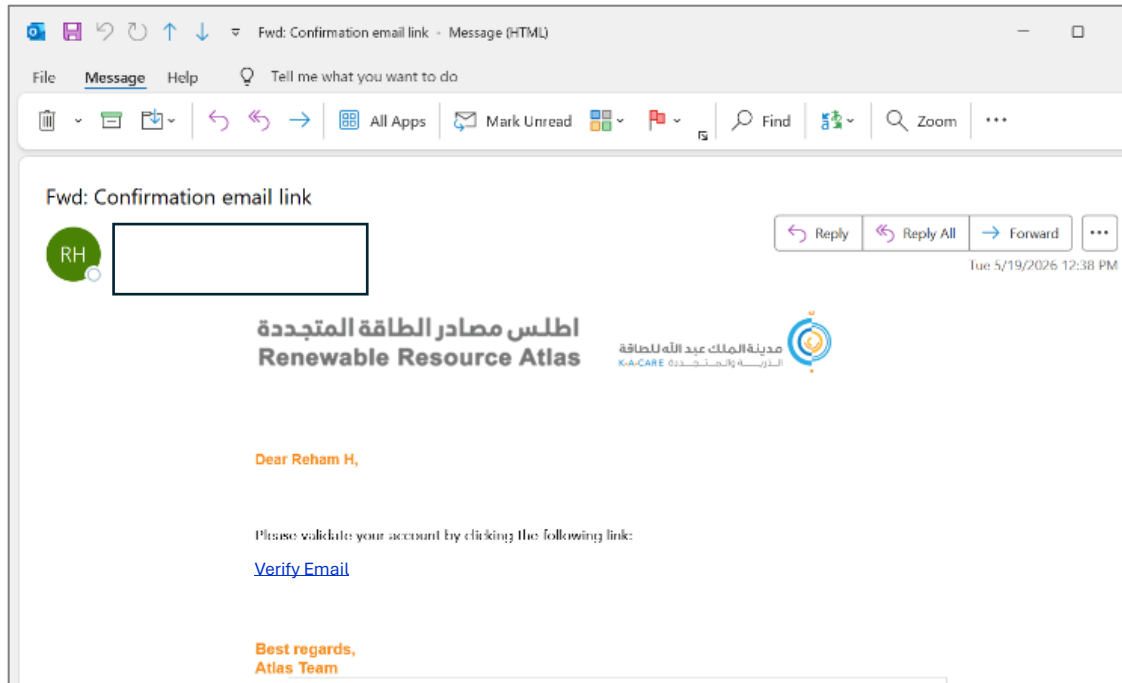


Figure 9: Email verification

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).

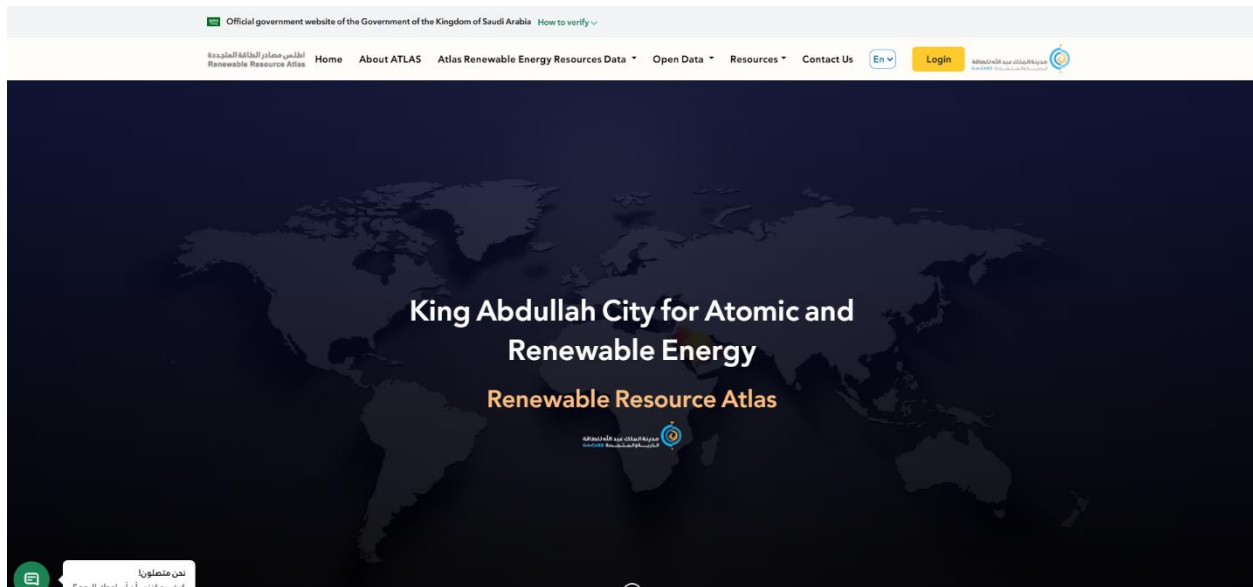


Figure 10: Login Tab

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

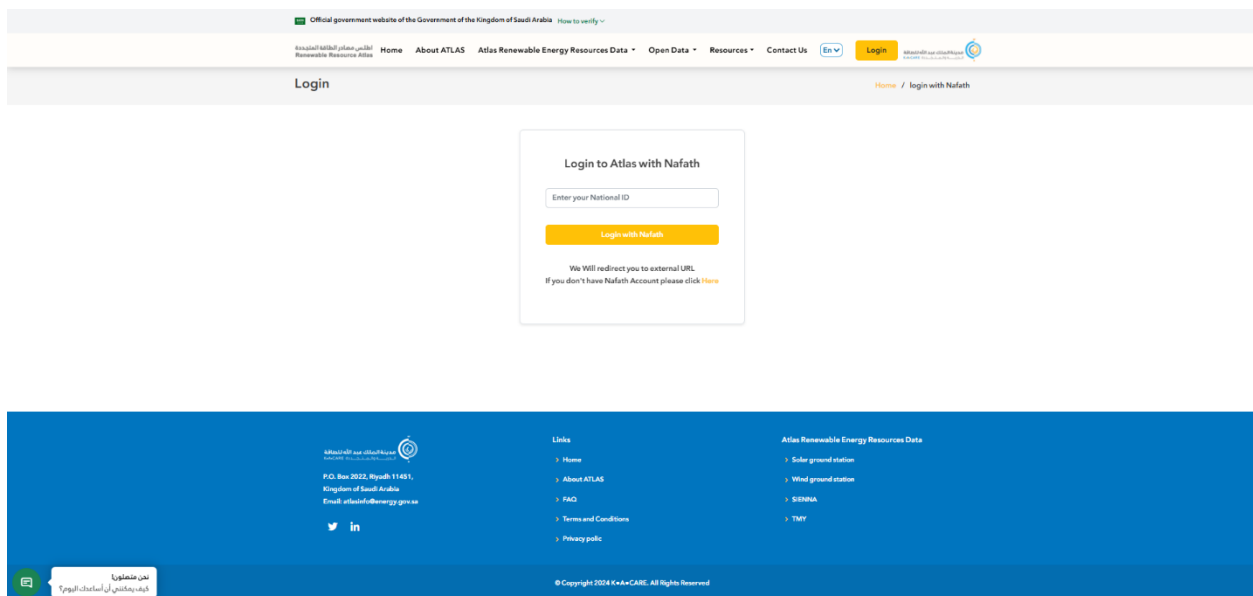


Figure 11: Login via Nafath



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).

The screenshot shows the official government website of the Kingdom of Saudi Arabia. The header includes navigation links: Home, About ATLAS, Atlas Renewable Energy Resources Data, Open Data, Resources, and Contact Us. A 'Login' button is visible. The main content area is titled 'Login' and features a 'Login to Atlas with Nafath' section. This section has a text input field for 'Enter your National ID', a yellow 'Login with Nafath' button, and a message: 'We Will redirect you to external URL. If you don't have Nafath Account please click [Here](#)'. The footer contains contact information, social media links, and a list of links including Home, About ATLAS, FAQ, Terms and Conditions, Privacy policy, and Atlas Renewable Energy Resources Data (Solar ground station, Wind ground station, SIENNA, TMY).

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).

The screenshot shows the same website as Figure 12, but the 'Login to Atlas' section is active. It features a text input field for 'Email', a text input field for 'Password', a 'Remember me?' checkbox, a yellow 'Login' button, and a link: 'Don't have an account? [Sign up](#)'. The footer is identical to Figure 12, including contact information, social media links, and a list of links.

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).

The screenshot shows the 'Login Two Step' page of the Atlas Renewable Energy Resources Data website. The header contains navigation links: Home, About ATLAS, Atlas Renewable Energy Resources Data, Open Data, Resources, and Contact Us, along with a language selector (En) and a Login button. The main content area is titled 'Login Two Step' and features a 'Two Step Verification' box. Inside this box, users are instructed to 'Enter the code that was sent to your email' and are provided with six input fields for the OTP. The footer includes contact information for the King Abdullah City for Atomic and Renewable Energy (K.A.CARE), social media links for Twitter and LinkedIn, and a list of links to various resources including Home, About ATLAS, FAQ, Terms and Conditions, Privacy policy, Solar ground station, Wind ground station, SIENNA, and TMY.

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).

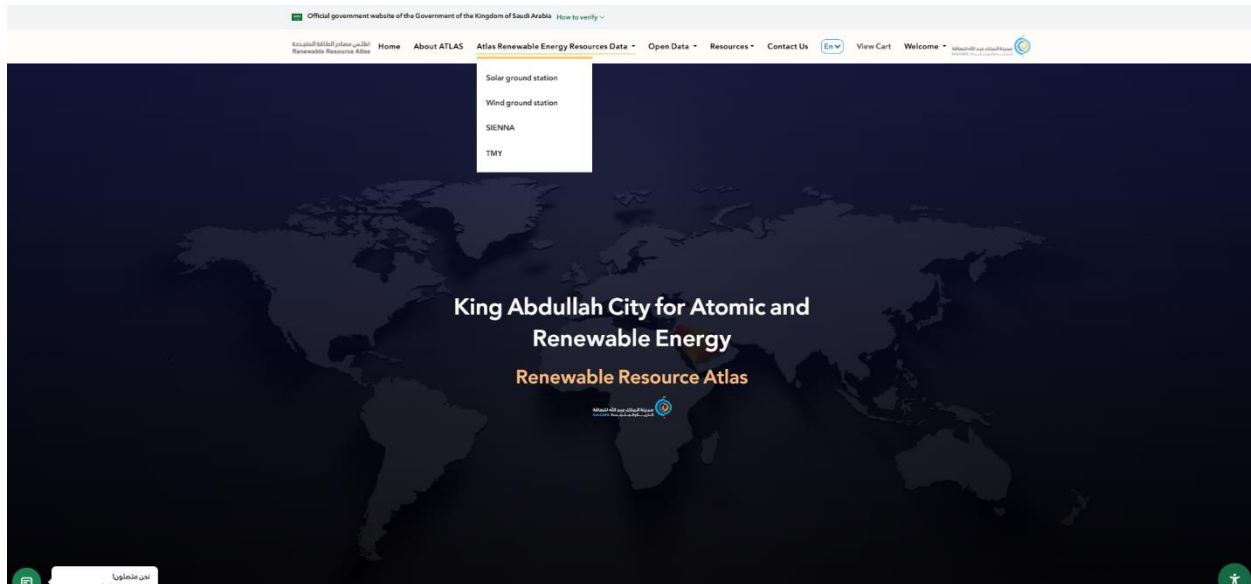


Figure 15: Atlas Renewable Energy Resource Data Tab

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 Shortwave
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).

Official government website of the Government of the Kingdom of Saudi Arabia

Atlas Renewable Energy Resources Data

Solar Ground Station

Solar Ground Stations is collecting a high-quality dataset of solar resources at solar monitoring stations throughout Saudi Arabia. Collectively, the stations characterize the three components of solar radiation (Direct Normal Irradiance [DNI], Global Horizontal Irradiance [GHI], and Diffuse Horizontal Irradiance [DHI]), in addition to related meteorological parameters.

For support or to request access to the service, contact: atlasinfo@energy.gov.sa.

Request Service

Service Information

- Service Duration**
1 business day
- Target Audience**
Citizen, Government, Business
- Service Cost**
- Beneficiaries**
Citizen, Resident, Visitor, Companies

How to Apply

- Click on the service link
- Hover over "Data Actions", then select Solar Station
- Select your desired station
- Set the location and click continue
- Fill in to submit the request

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).

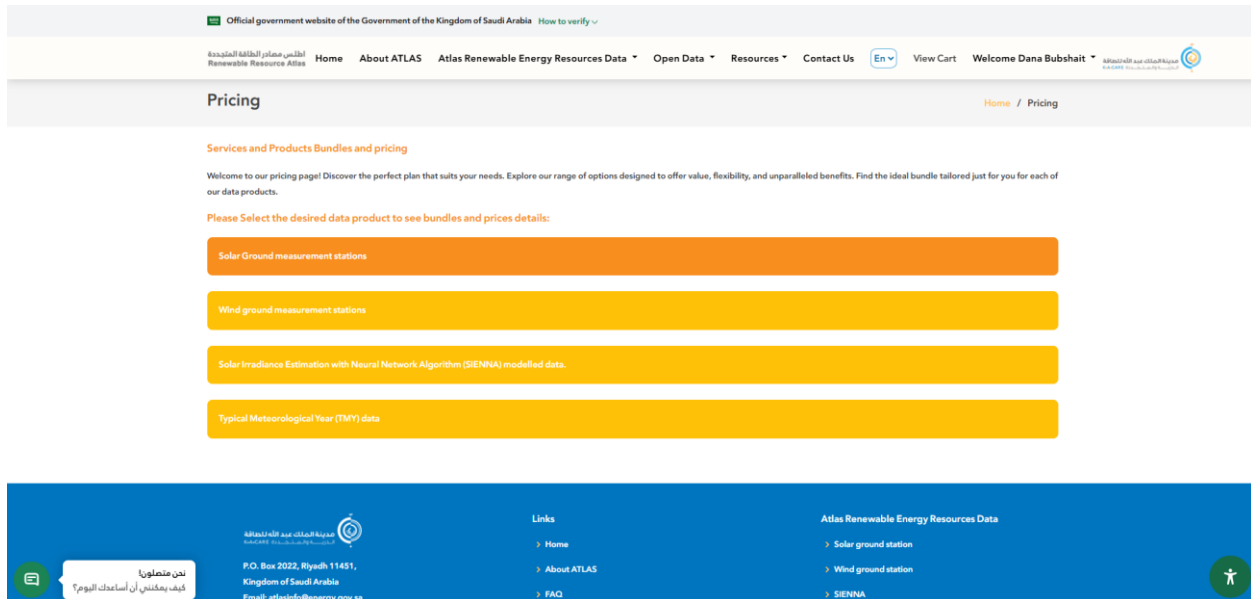


Figure 17: Pricing Details

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

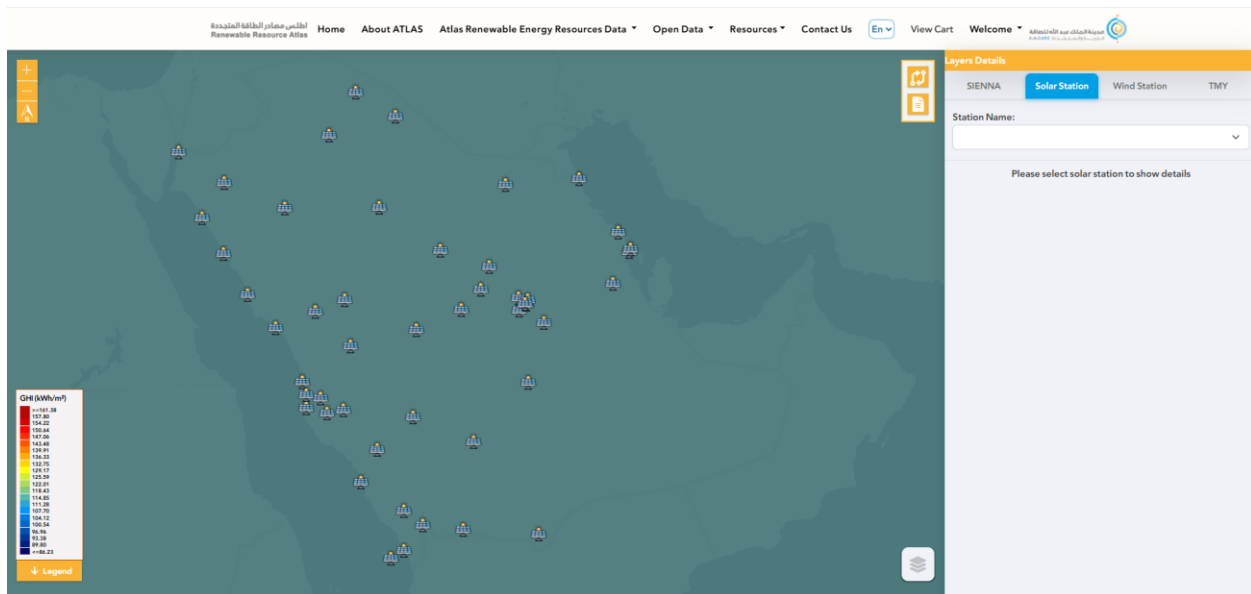


Figure 18: Solar Station Selection



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

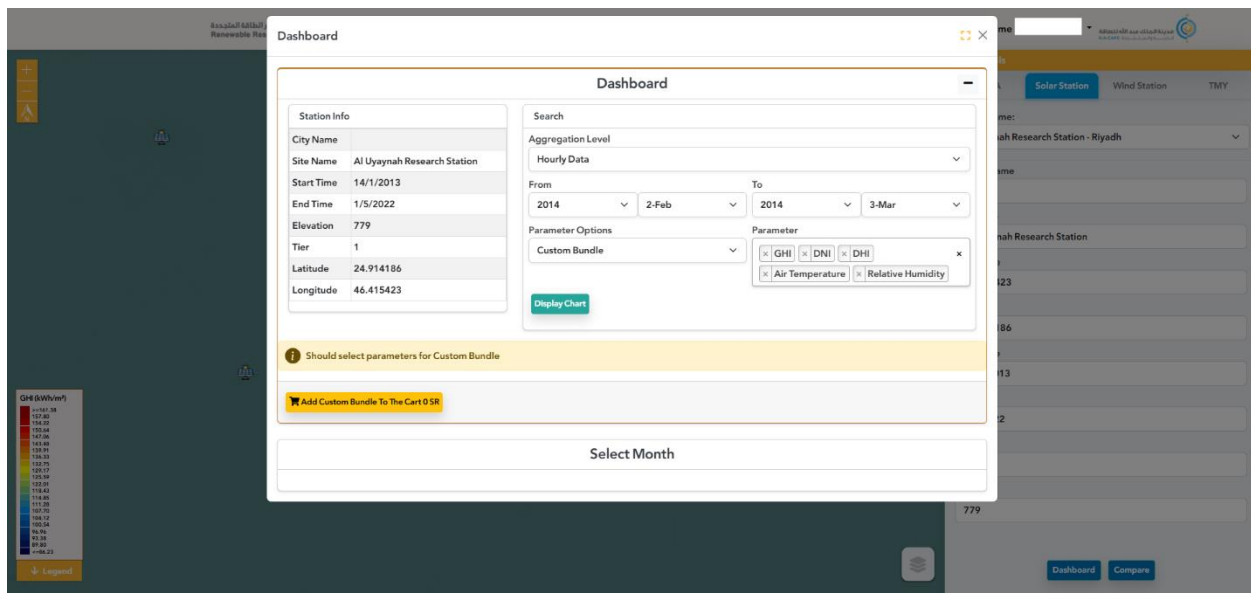


Figure 20: Dashboard Configuration



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

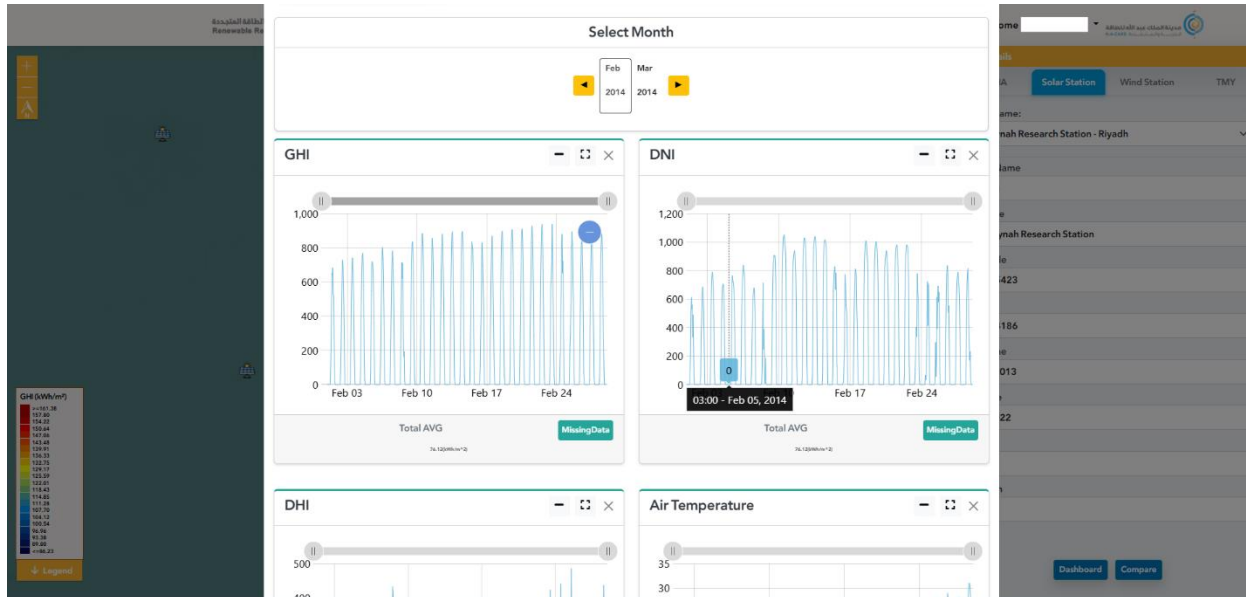


Figure 21: Display Charts

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).

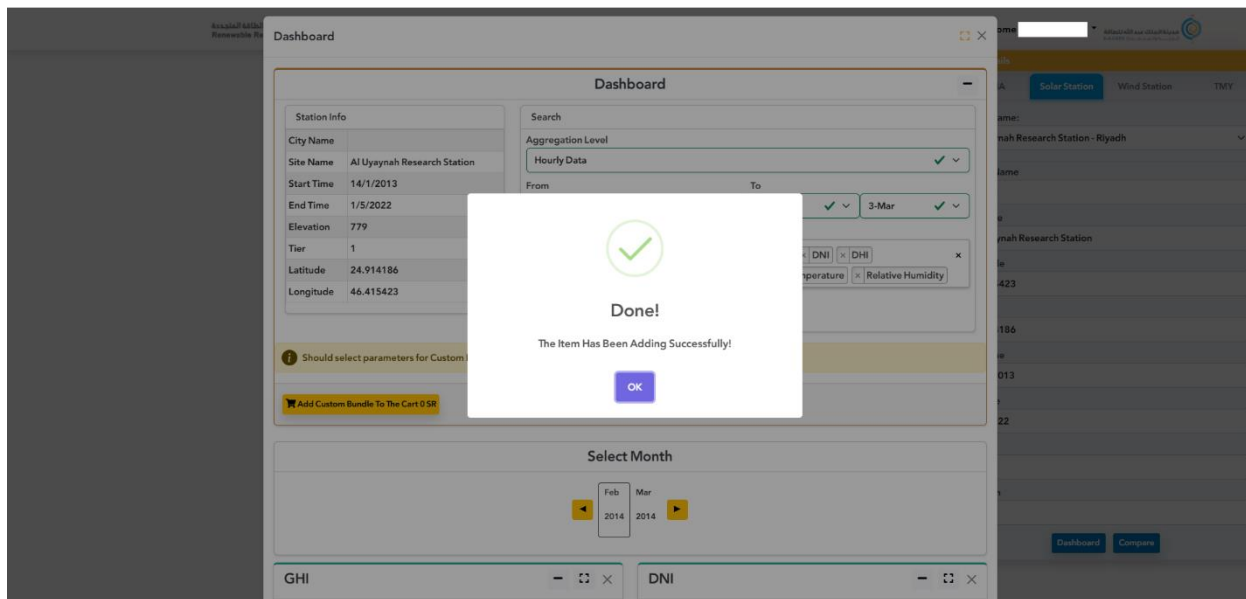


Figure 22: Add Item to Cart



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

S. No	Type	Location	Product	Resolution	Date Range	Price
1	Solar Ground Station	Al Uyaynah Research Station	Custom Bundle - Air Temperature ⓘ	Hourly Data	Feb 01, 2014 - Mar 31, 2014	0 ⓘ
2	Solar Ground Station	Al Uyaynah Research Station	Custom Bundle - DHI ⓘ	Hourly Data	Feb 01, 2014 - Mar 31, 2014	0 ⓘ
3	Solar Ground Station	Al Uyaynah Research Station	Custom Bundle - DNI ⓘ	Hourly Data	Feb 01, 2014 - Mar 31, 2014	0 ⓘ
4	Solar Ground Station	Al Uyaynah Research Station	Custom Bundle - GHI ⓘ	Hourly Data	Feb 01, 2014 - Mar 31, 2014	0 ⓘ
5	Solar Ground Station	Al Uyaynah Research Station	Custom Bundle - Relative Humidity ⓘ	Hourly Data	Feb 01, 2014 - Mar 31, 2014	0 ⓘ
Total						0

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).

#	Parameter name (Units)	Start Date	Availability	Parameter Description
1	Air Temperature (C°)	Not Available	0 %	The degree of hotness or coldness of the environment (measured by C°)

Figure 24: View Order Details



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



Official government website of the Government of the Kingdom of Saudi Arabia - How to use

Price Details : Solar Ground Station | Al Uyaynah Research Station | Custom Bundle - Air Temperature | Hourly Data

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)
145.00	100	145.00	N/A	N/A	N/A	N/A	145.00	0	2	0

Atlas Renewable Energy Resources Data

- Solar ground station
- Wind ground station
- SIENNA
- TMY

Links

- Home
- About ATLAS
- FAQ
- Terms and Conditions
- Privacy policy




نحن متعلقون
كيف يمكننا أن نساعدك اليوم؟

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).

The screenshot displays the 'Atlas Renewable Energy Resources Data' website. A modal window is centered on the screen, asking for confirmation to proceed with the checkout. The modal contains a question mark icon, the text 'Checkout', and the question 'Are you sure you want to confirm checkout?'. Below this text are two buttons: 'Cancel' and 'OK'. In the background, a table with columns 'S.No', 'Type', 'Location', 'Product', 'Resolution', 'Date Range', and 'Price' is visible. The table lists five entries, all of which are 'Solar Ground Station' located at 'Al Uyaynah Research Station'. The date range for all entries is 'Feb 01, 2014 - Mar 31, 2014'. The price column shows '0' with a warning icon. The website header includes the logo of the Kingdom of Saudi Arabia, the text 'Official government website of the Government of the Kingdom of Saudi Arabia', and navigation links: 'Home', 'About ATLAS', 'Atlas Renewable Energy Resources Data', 'Open Data', 'Resources', 'Contact Us', 'En', 'View Cart', and 'Welcome'. The footer contains the website's address: 'P.O. Box 2022, Riyadh 11431, Kingdom of Saudi Arabia', email 'atlasinfo@energy.gov.sa', and social media links for Twitter and LinkedIn. There is also a 'Links' section with links to 'Home', 'About ATLAS', 'FAQ', 'Terms and Conditions', and 'Privacy policy'. A 'Clear Cart' button is visible in the bottom right corner of the modal area.

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”.

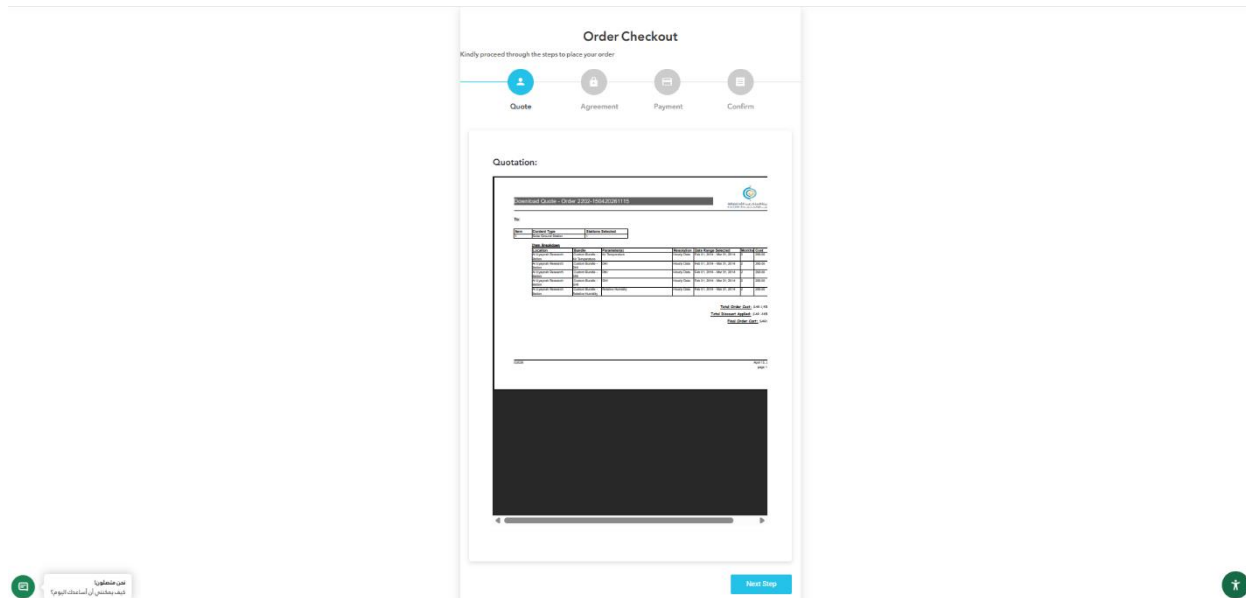


Figure 27: Order Quotation

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

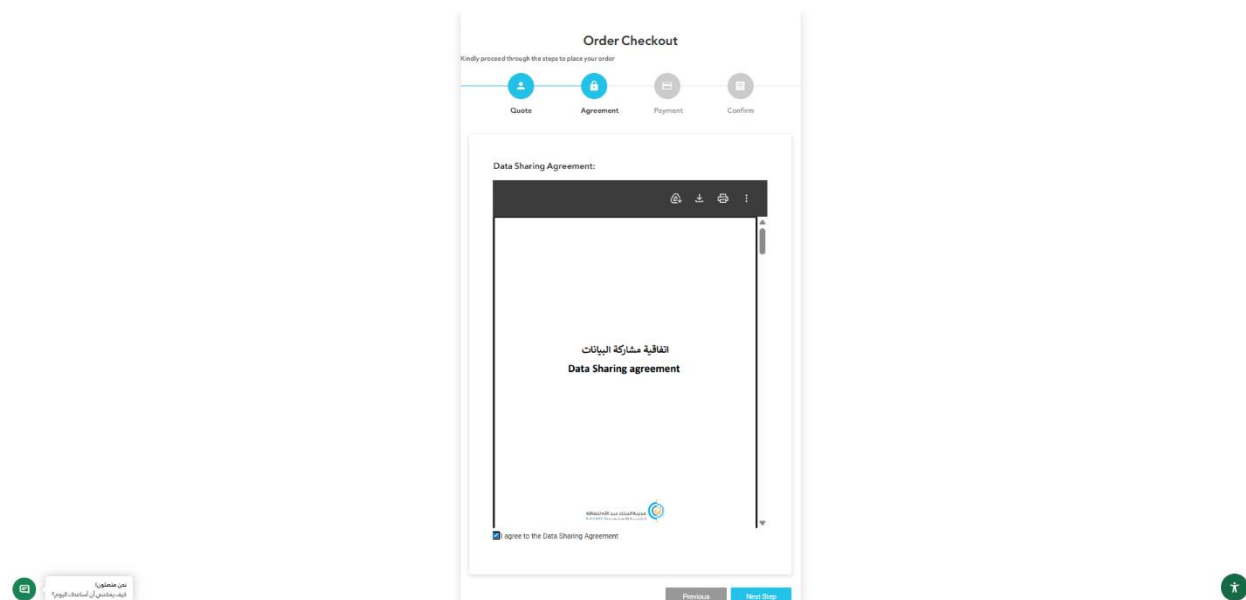


Figure 28: Data Sharing Agreement



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

Atlas Renewable Energy Resources Data

Home About ATLAS Atlas Renewable Energy Resources Data Open Data Resources Contact Us En View Cart Welcome

Order Checkout

Kindly proceed through the steps to place your order

Quote Agreement **Payment** Confirm

Payment Information:

Thank you for using Atlas Data order service, please find below the payment information: For paid orders, Atlas team will issue a SADAD invoice to your order within one business day, and you will receive an email once it is issued, the email will contain all payment details. For any further questions regarding the payment, please visit our Contact Us page, Atlas team will be happy to support you!

Previous Next Step

نحن متصليون
كيف يمكننا أن نساعدك اليوم؟

Figure 29: Payment Process

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

Order Checkout

Kindly proceed through the steps to place your order

Quote Agreement Payment **Confirm**

Confirm :

Full Name:

Email Address:

Phone Number:

By pressing "Submit", I agree to:

1. The final price mentioned in the Quote
2. All the Terms & Conditions in the Data Sharing Agreement
3. Use the specified method of payment

Previous Submit

نحن متصليون
كيف يمكننا أن نساعدك اليوم؟

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).

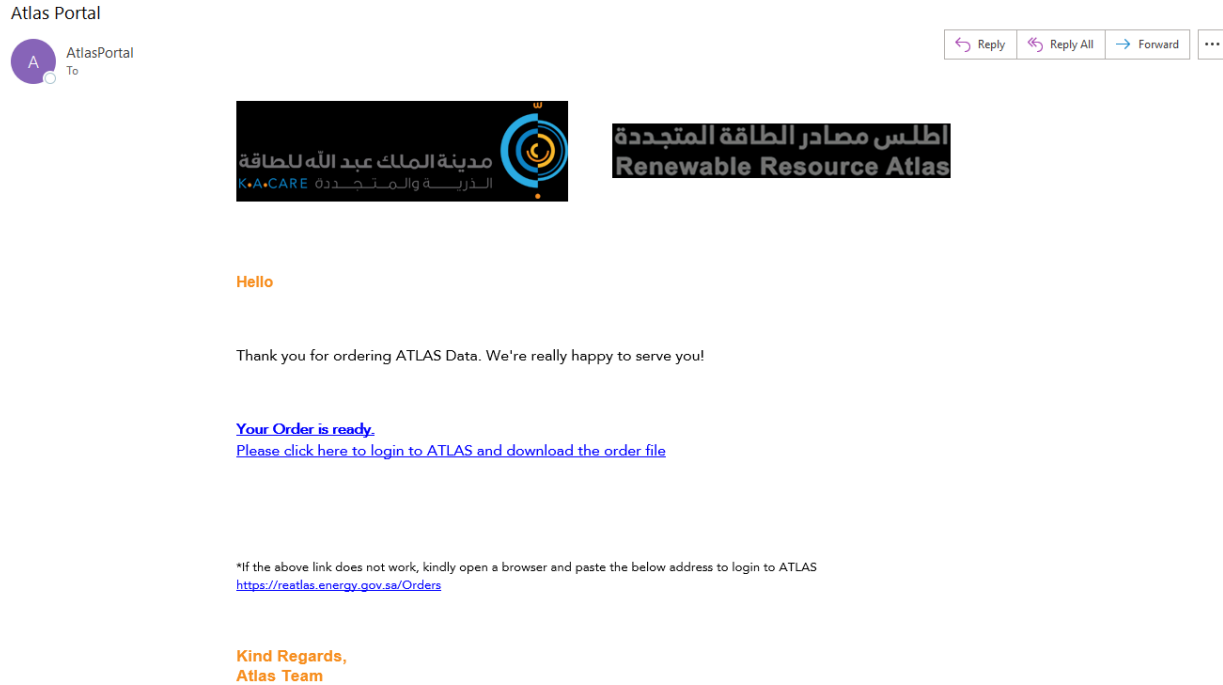


Figure 31: Approved Request Email

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).

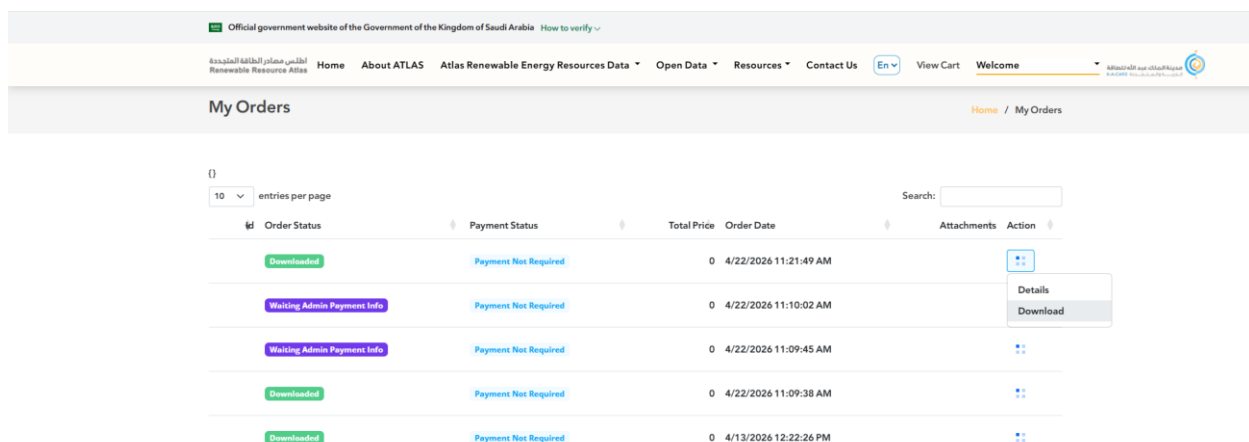


Figure 32: Download Menu



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

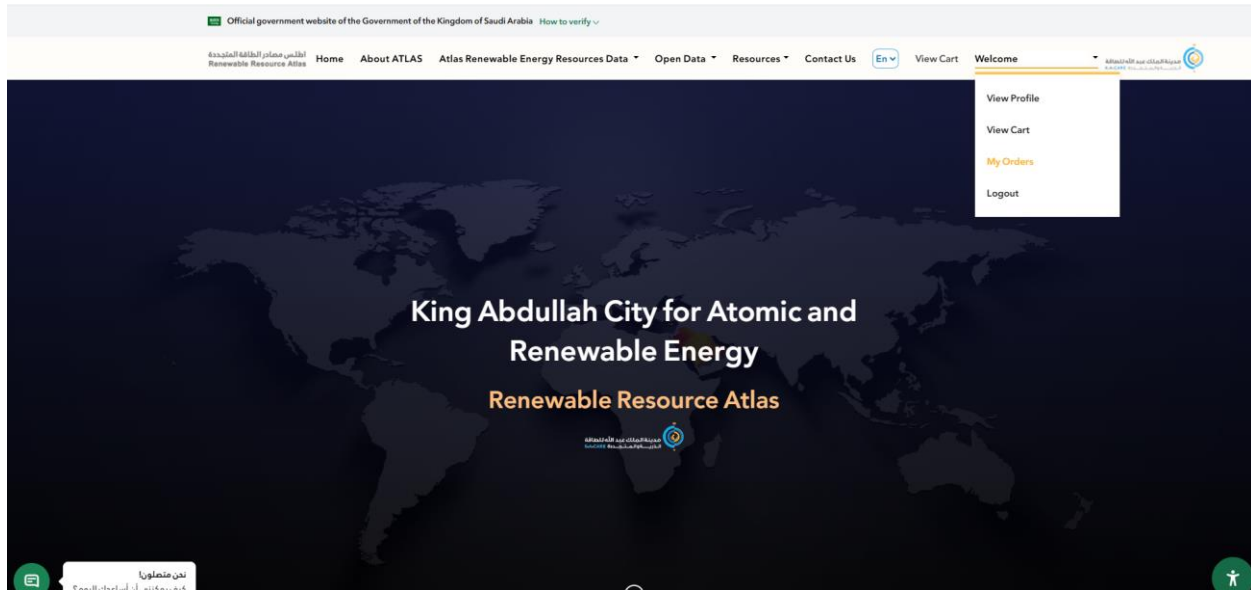


Figure 33: My Orders Tab

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).

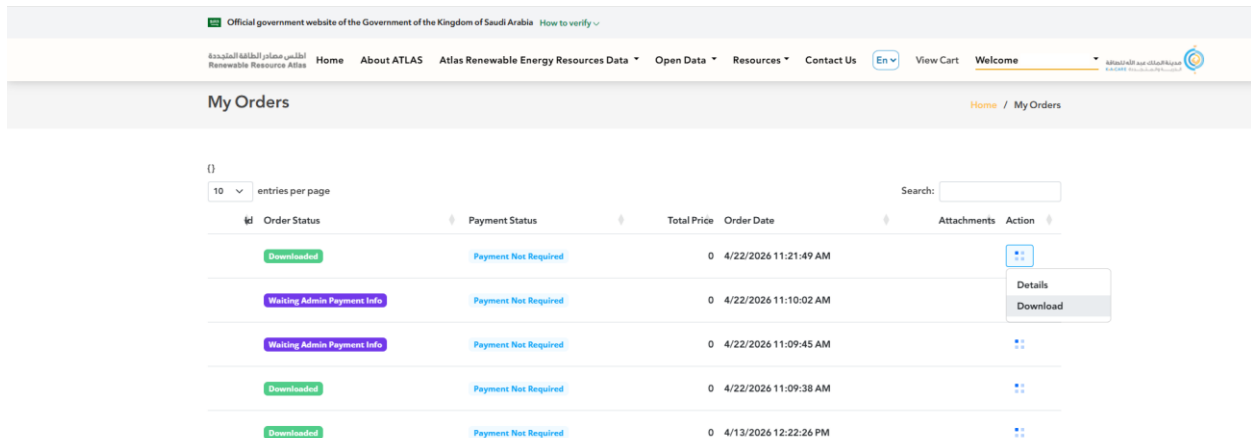


Figure 34: Download Menu



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

Date/Time	GH	DHI	DNI	AirTemp	StationP	AvgWind	RelHumid	GHUncert	DHIUncert	DNIUncert	AirTempUncert	StationPUncert	AvgWindUncert	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
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
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
1/6/2013 3:00	0	0	0	28.2	919.5	1.2	283	12	0	0	0	0.5	4.6	0
1/6/2013 4:00	0	0	0	26	919.8	1.8	266	15.7	0	0	0	0.5	4.6	0
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
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
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
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
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
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
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
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
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
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
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
1/6/2013 16:00	582.7	346.2	372.2	39.2	919.2	4.5	308	5.2	38.9	21.9	25.2	0.5	4.6	0.1
1/6/2013 17:00	343.3	265.5	154.9	38.7	919	5.7	306	5.5	28.9	18.3	16.3	0.5	4.6	0.1
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
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
1/6/2013 20:00	0	0	0	35	920	5.4	325	4.9	0	0	0	0.5	4.6	0.1
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
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
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

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).

Official government website of the Government of the Kingdom of Saudi Arabia

الطاقة المتجددة
Renewable Resource Atlas

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Solar Ground Station

Solar Ground Stations is collecting a high-quality dataset of solar resources at solar monitoring stations throughout Saudi Arabia. Collectively, the stations characterize the three components of solar radiation (Direct Normal Irradiance [DNI], Global Horizontal Irradiance [GHI], and Diffuse Horizontal Irradiance [DHI]), in addition to related meteorological parameters.

For support or to request access to the service, contact: atlasinfo@energy.gov.sa.

Request Service

Service Information

- Service Duration: 1 business day
- Target Audience: Citizen, Government, Business
- Service Cost
- Beneficiaries: Citizen, Resident, Visitor, Companies

About the Service **Terms & Requirements** **How to Apply**

- Click on the service link
- Hover over "Data Actions", then select Solar Station
- Select your desired station
- Set the location and click continue
- Fill in to submit the request

Figure 36: Request Service



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

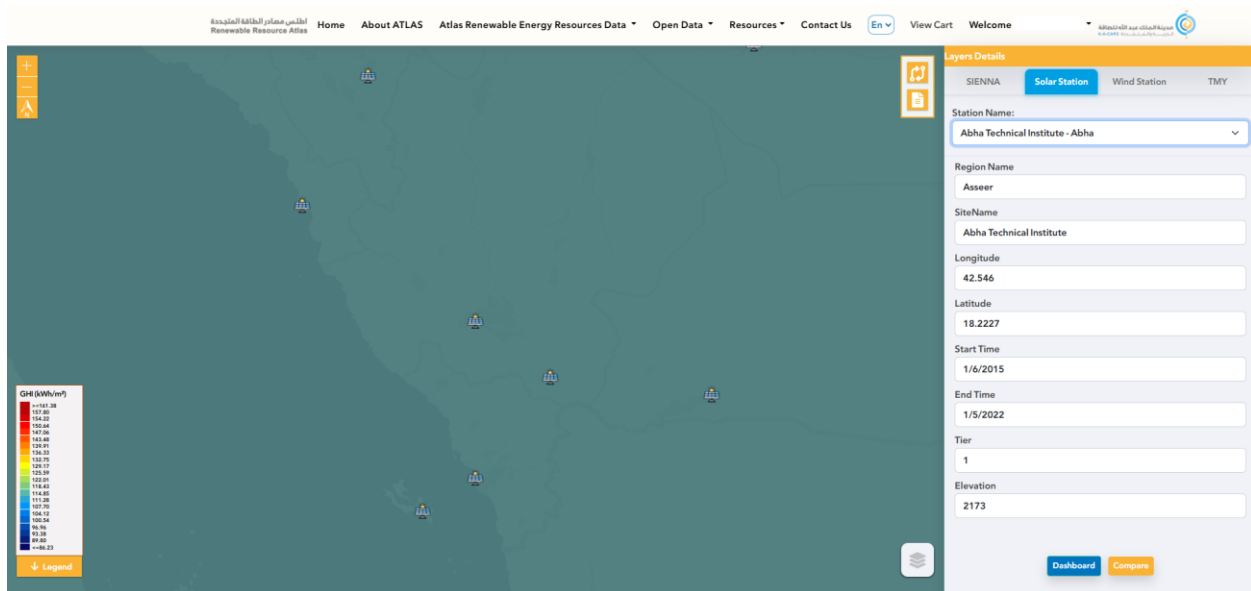


Figure 37: Compare Process

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

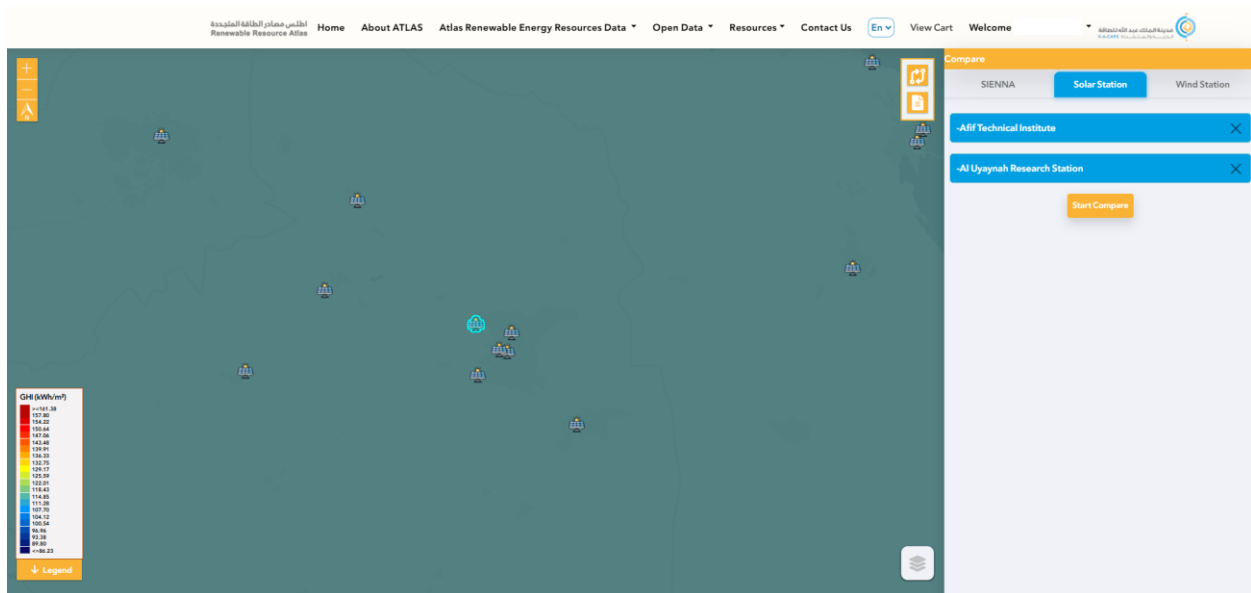


Figure 38: Start Compare Process



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.

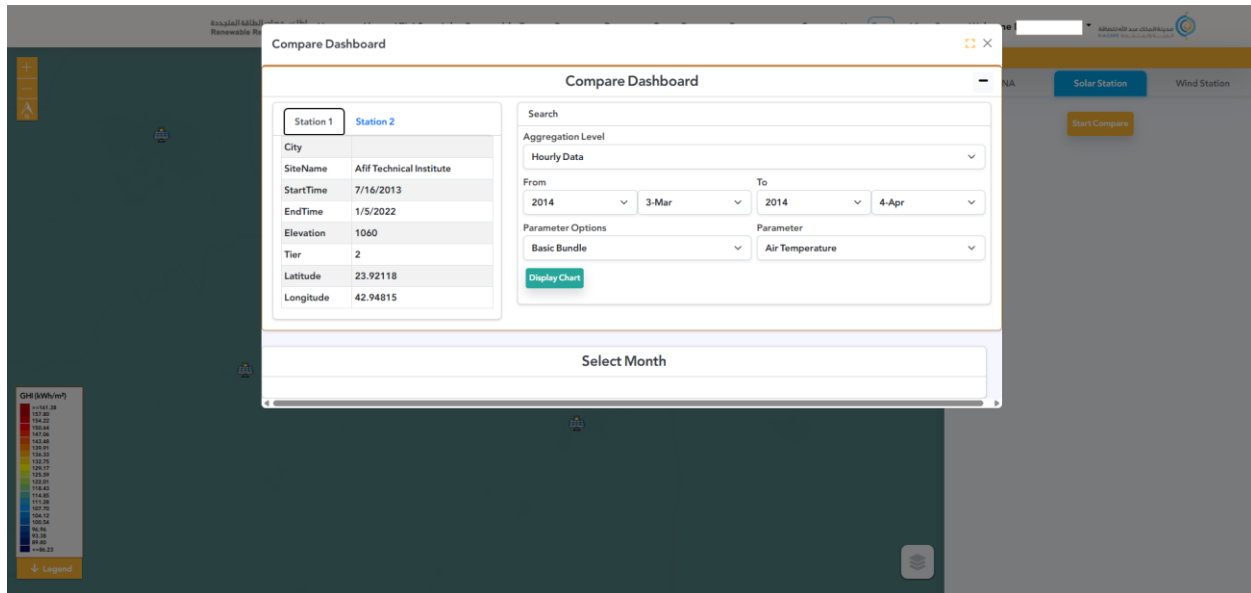


Figure 39: Dashboard Configuration

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).

Official government website of the Government of the Kingdom of Saudi Arabia

Home About ATLAS Atlas Renewable Energy Resources Data Open Data Resources Contact Us En View Cart Welcome

Wind Ground Stations

Wind ground stations measure wind energy resources intended for estimating wind power potentials for utility scale projects. The network stations encompass cup anemometers, wind vanes, temperature, relative humidity and barometer sensors.

For support or to request access to the service, contact: atlasinfo@energy.gov.sa.

Request Service

Service Information

- Service Duration: 1 business day
- Target Audience: Citizen, Government, Business
- Service Cost
- Beneficiaries: Citizen, Resident, Visitor, Companies

Pricing

Beneficiaries

How to Apply

- Click on the service link
- Hover over "Data Actions", then select Wind Ground Stations
- Select your desired station
- Set the location and click continue
- I am in to submit the request

نحن نساعدك اليوم؟
كيف يمكننا أن نساعدك اليوم؟

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).

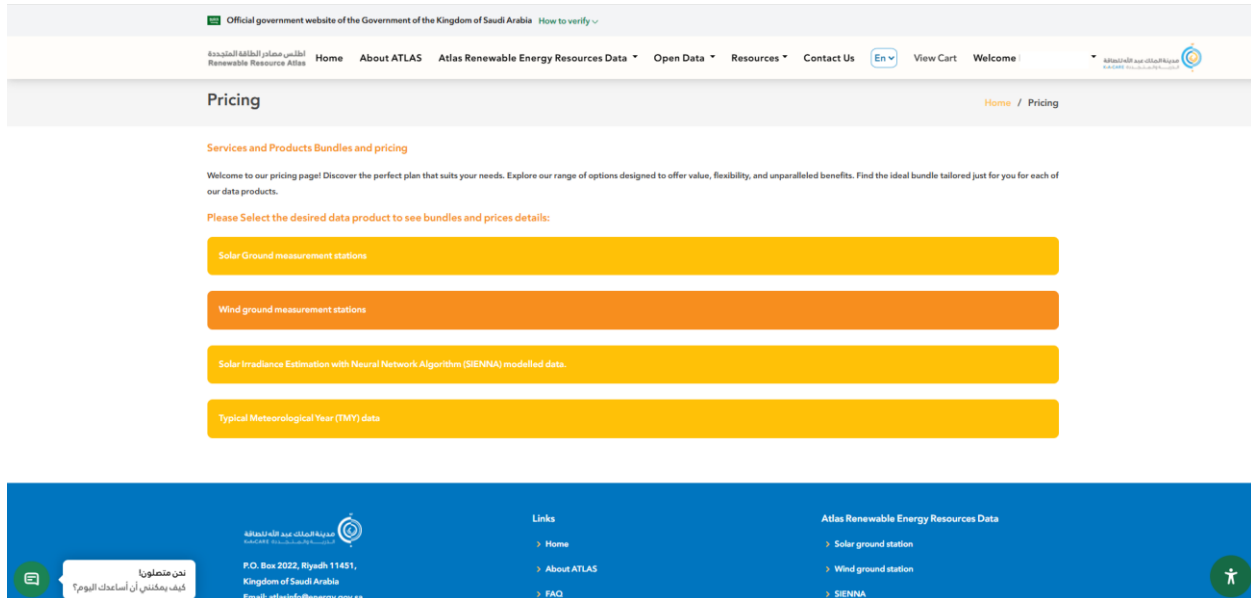


Figure 41: Pricing Detail

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

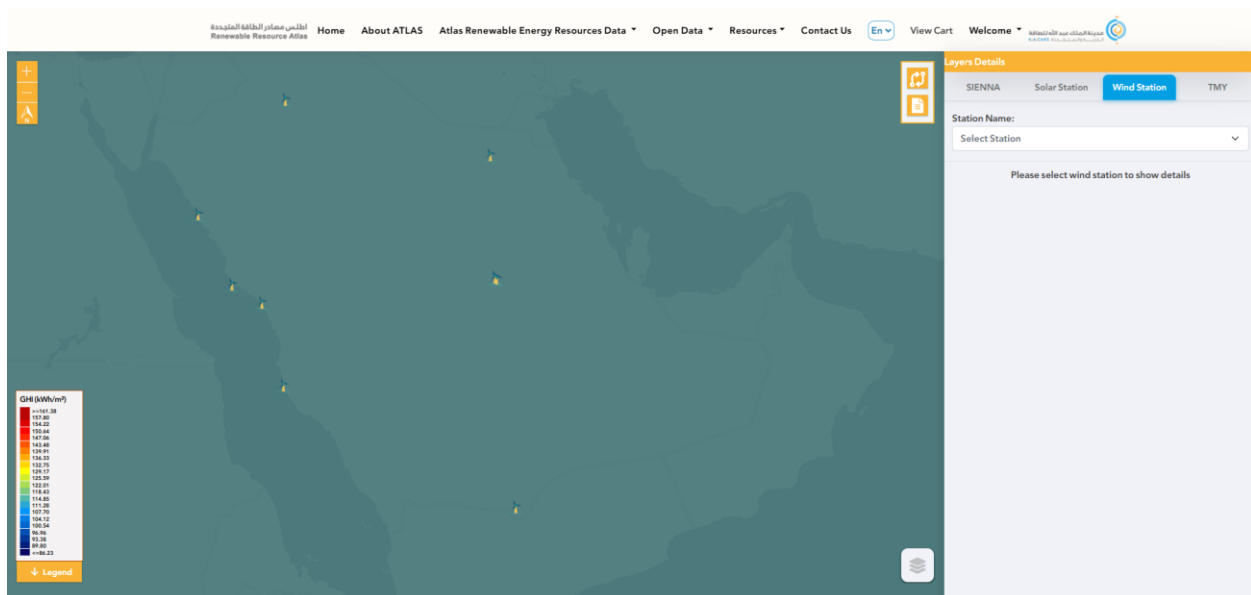


Figure 42: Wind Station Selection



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

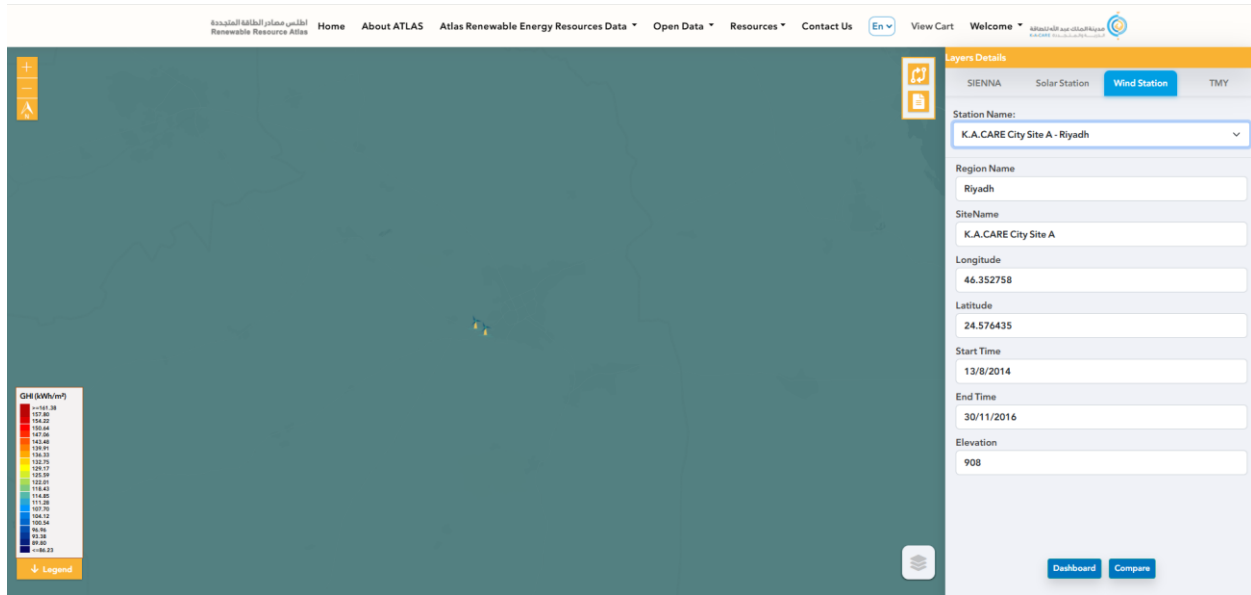


Figure 43: Wind Station Details

Click on “Dashboard” to (Figure 44):

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

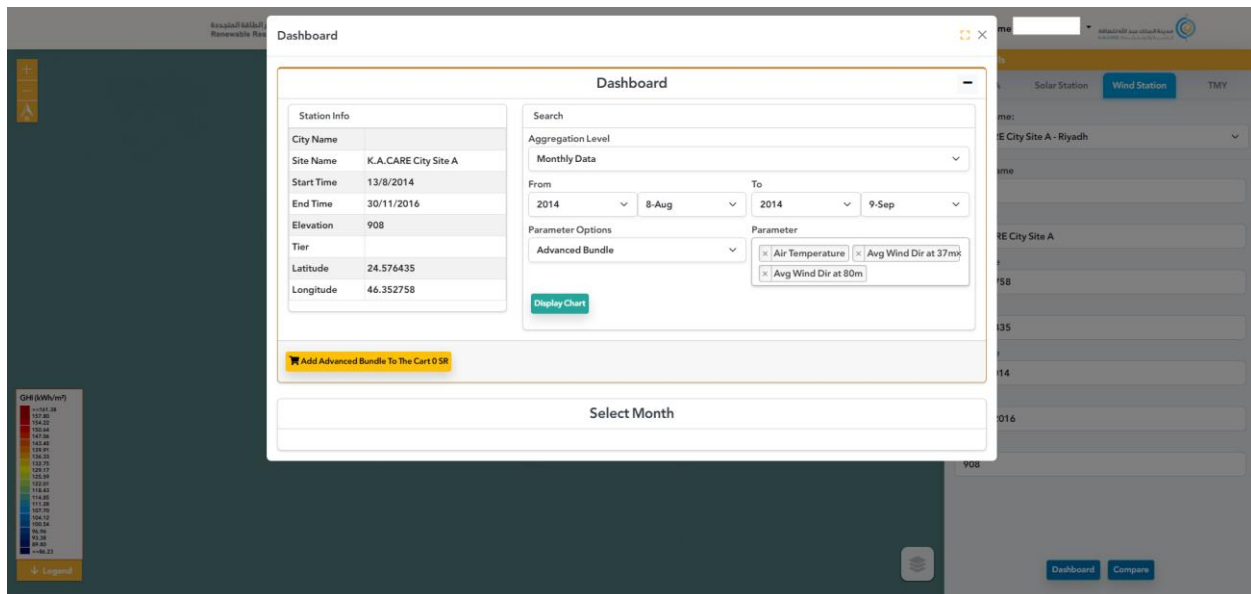


Figure 44: Dashboard Configuration



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

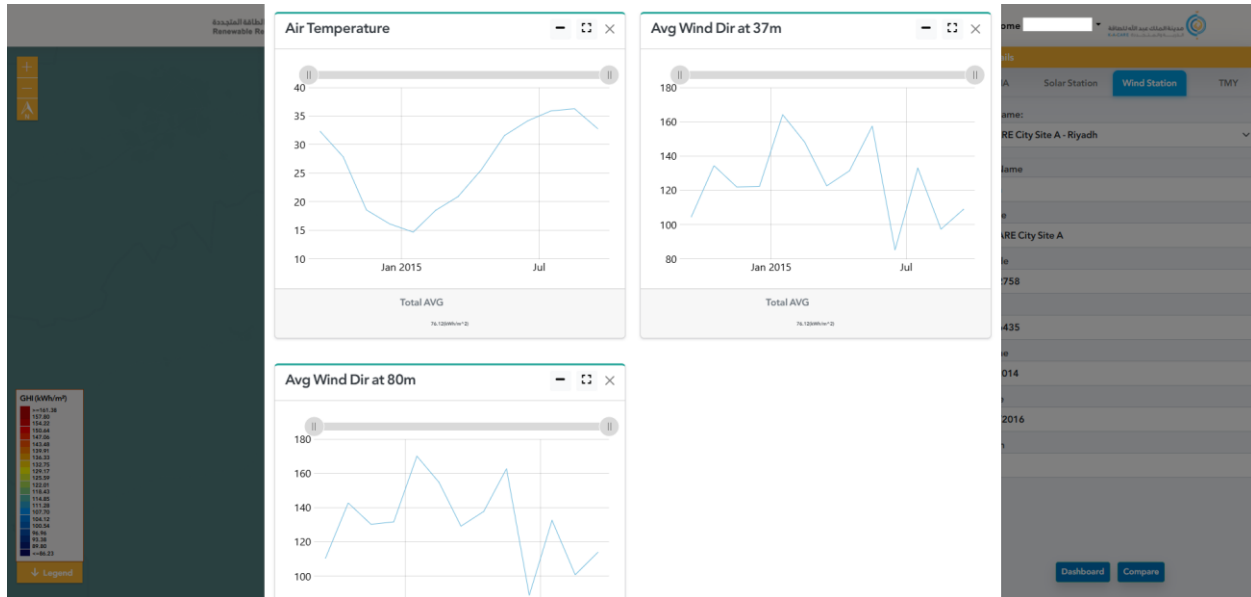


Figure 45: Display Charts

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).

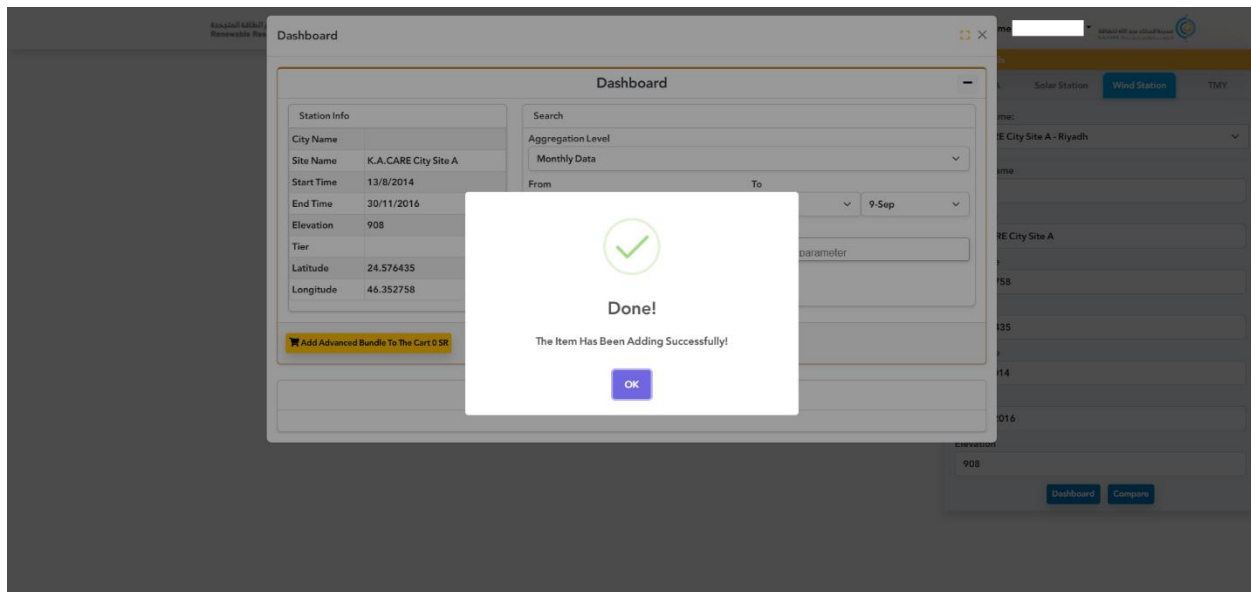


Figure 46: Add Item to Cart



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

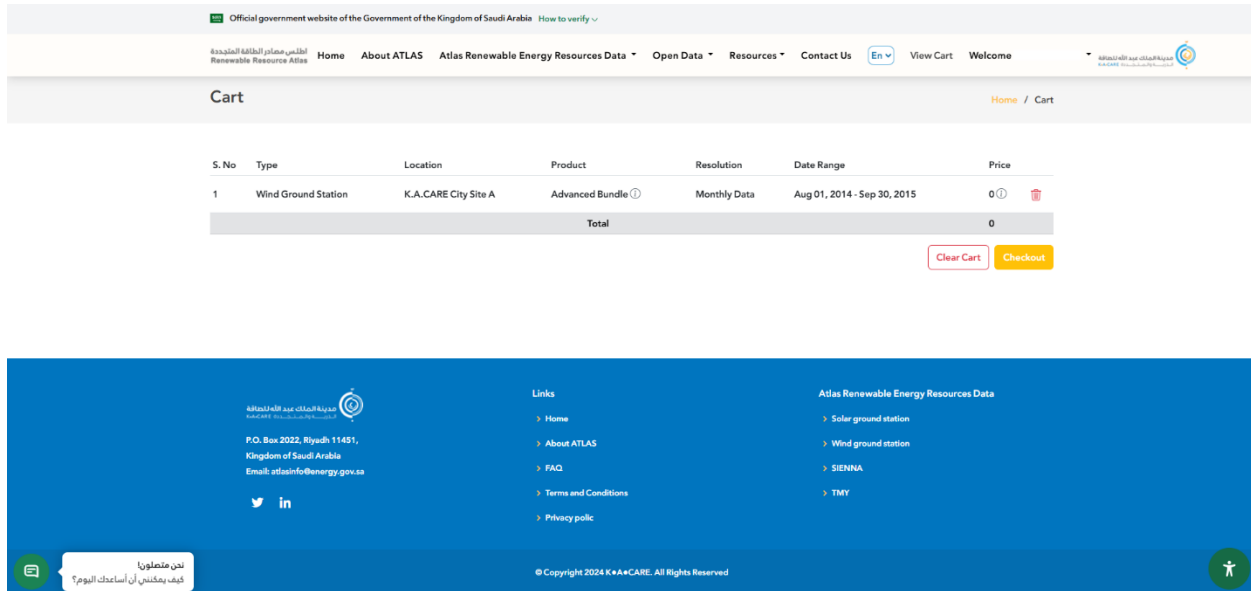


Figure 47: View Cart

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).

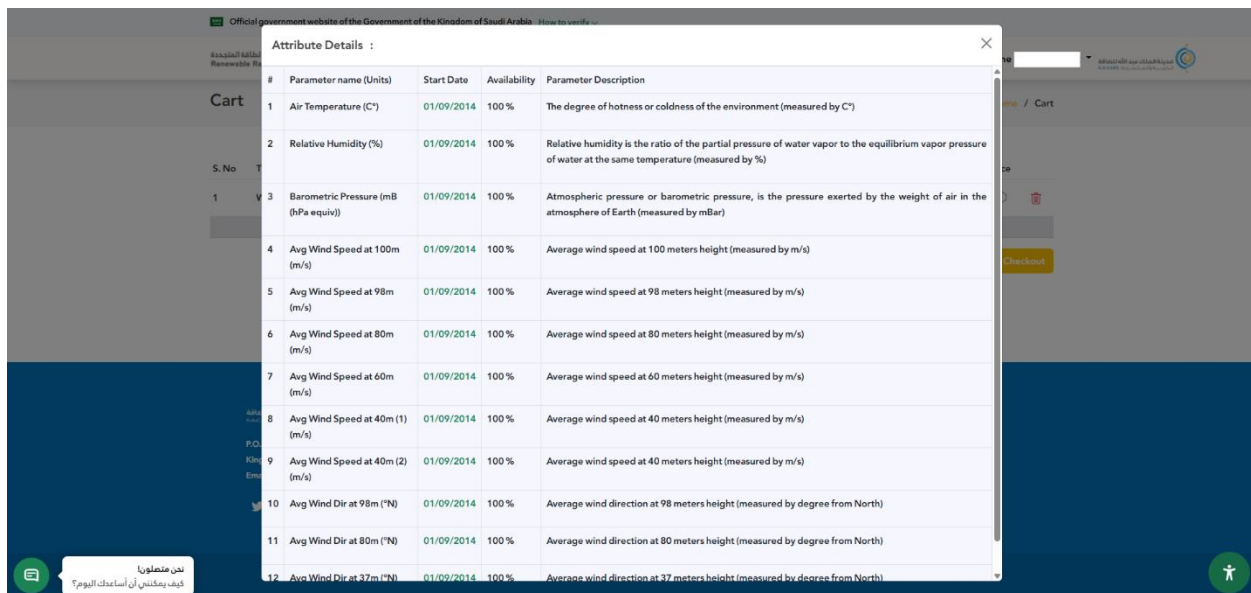


Figure 48: View Order Details



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

Price Details : Wind Ground Station | K.A.CARE City Site A | Advanced Bundle | Monthly Data

Pricing	User Type	User Type Discount	Time Period	Time Period Discount	No. Of Stations	No. Of Stations Discount	Total Price	Total Price Discount	Selected Duration	Final Price (Selected Duration)
Per Month	100	0	N/A	N/A	N/A	N/A	0	0	14	0

Cart

S.No	Type	Location	Product	Resolution	Date Range	Price
1	Wind Ground Station	K.A.CARE City Site A	Advanced Bundle ⓘ	Monthly Data	Aug 01, 2014 - Sep 30, 2015	0 ⓘ
Total						0

Clear Cart Checkout

Atlas Renewable Energy Resources Data

- Solar ground station
- Wind ground station
- SIENNA
- TMY

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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).

Checkout

Are you sure you want to confirm checkout?

Cancel OK

Atlas Renewable Energy Resources Data

- Solar ground station
- Wind ground station
- SIENNA
- TMY

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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”.

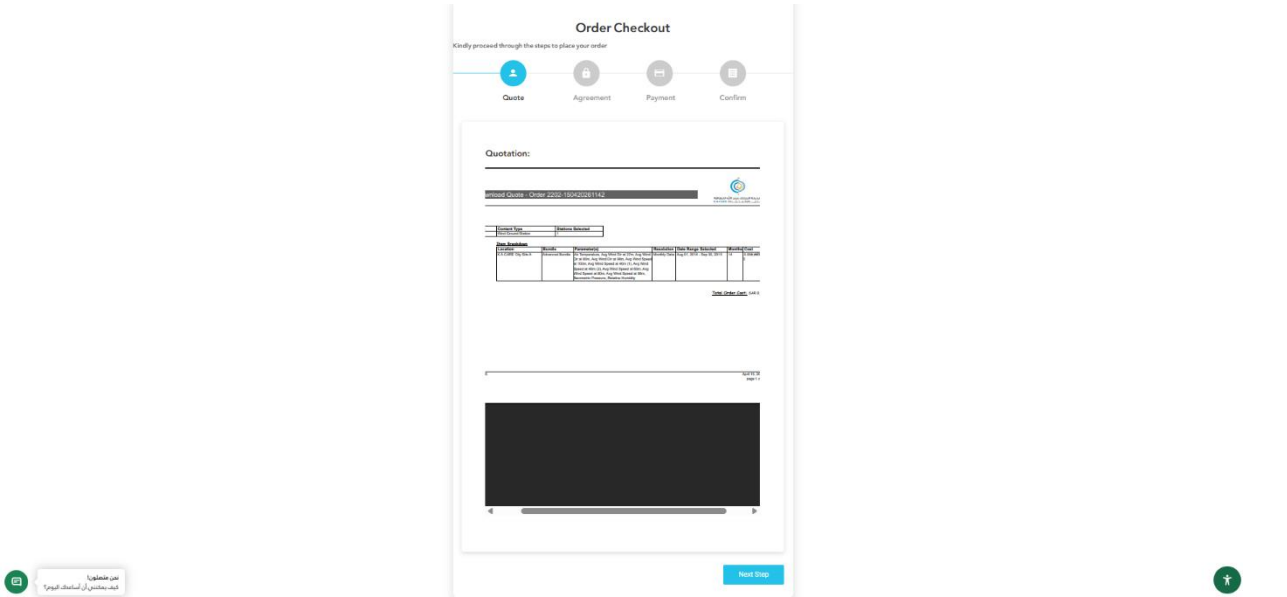


Figure 51: Order Quotation

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

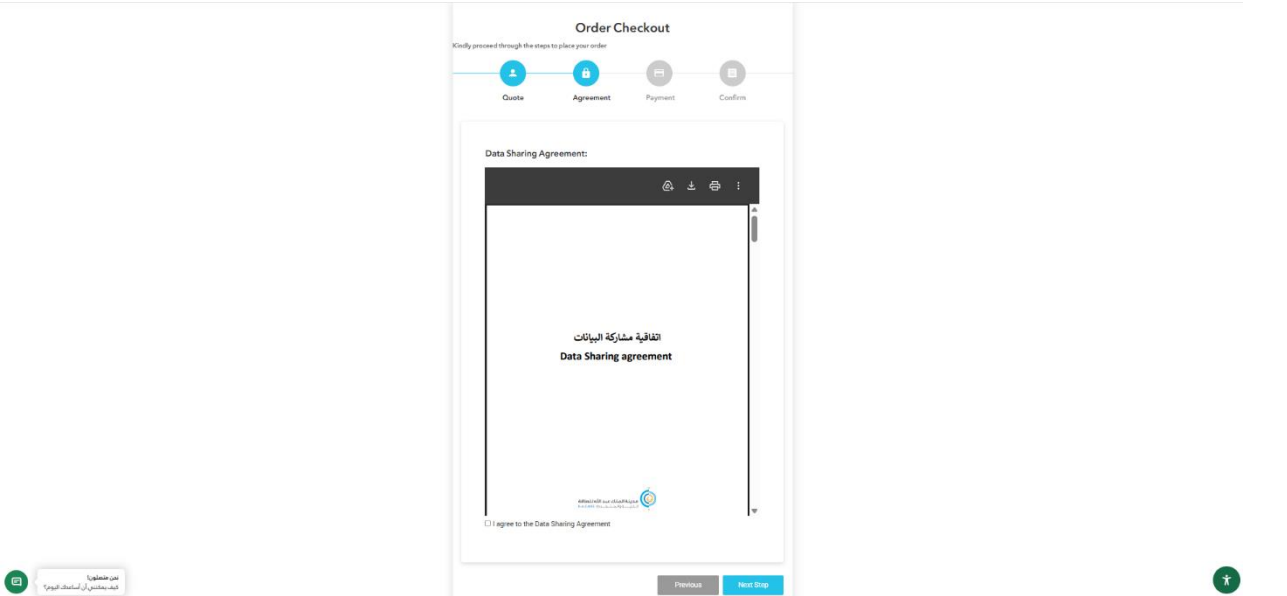


Figure 52: Data Sharing Agreement



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

Order Checkout

Kindly proceed through the steps to place your order

Quote Agreement Payment Confirm

Payment Information:

Thank you for using Atlas Data order service, please find below the payment information: For paid orders, Atlas team will issue a SADAD invoice to your order within one business day, and you will receive an email once it is issued, the email will contain all payment details. For any further questions regarding the payment, please visit our Contact Us page, Atlas team will be happy to support you!

Previous Next Step

Figure 53: Payment Process

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

Order Checkout

Kindly proceed through the steps to place your order

Quote Agreement Payment Confirm

Confirm :

Full Name:

Email Address:

Phone Number:

By pressing "Submit", I agree to:

1. The final price mentioned in the Quote
2. All the Terms & Conditions in the Data Sharing Agreement
3. Use the specified method of payment

Previous Submit

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).

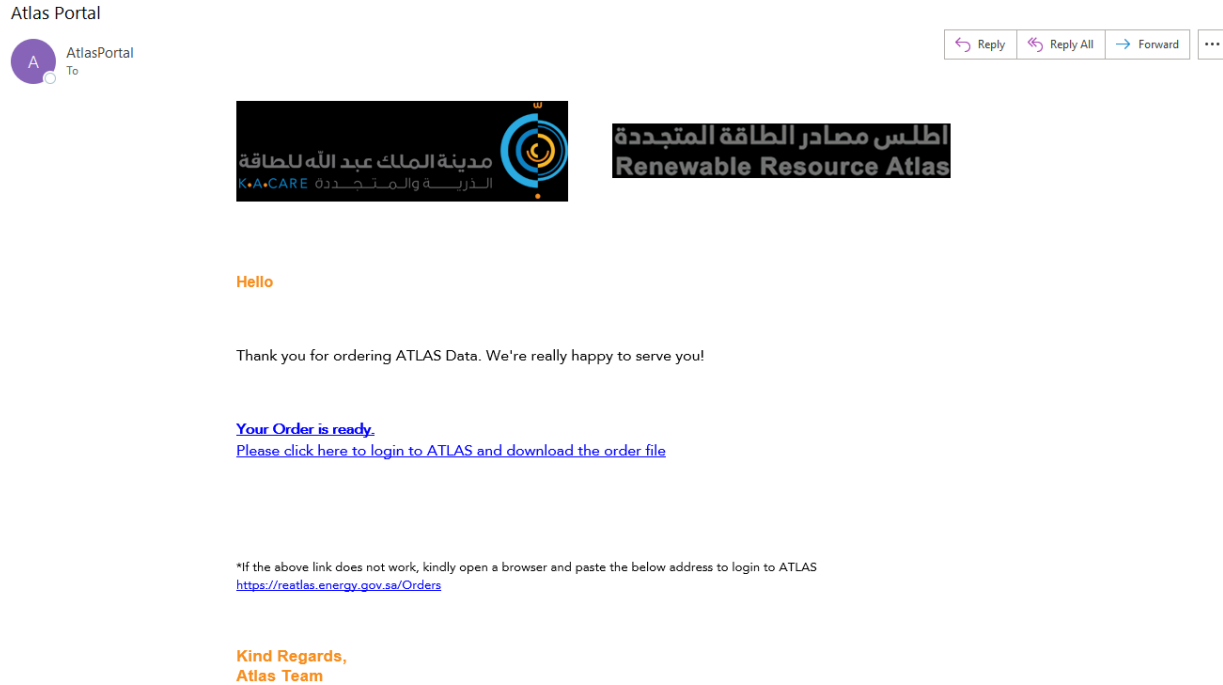


Figure 55: Approved Request Email

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).

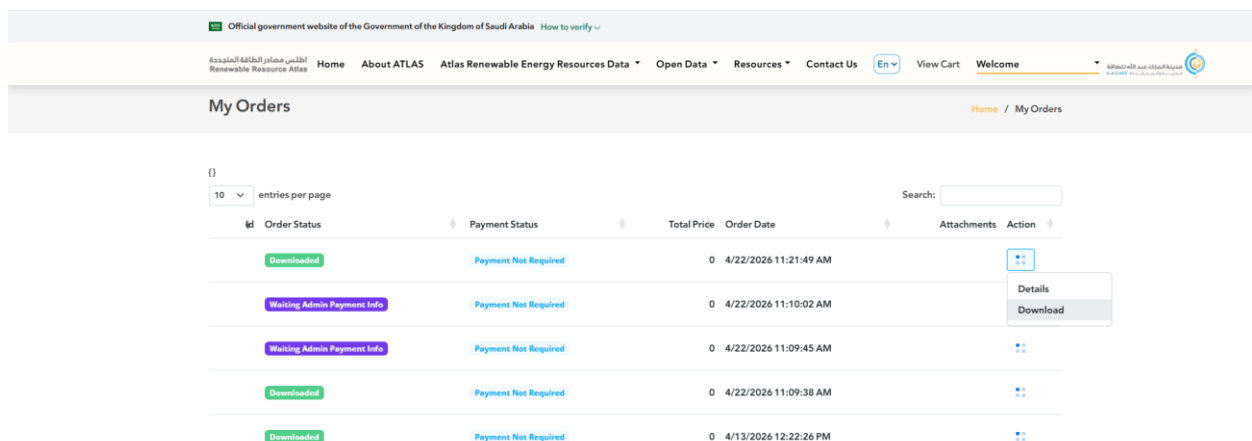


Figure 56: Download Menu



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

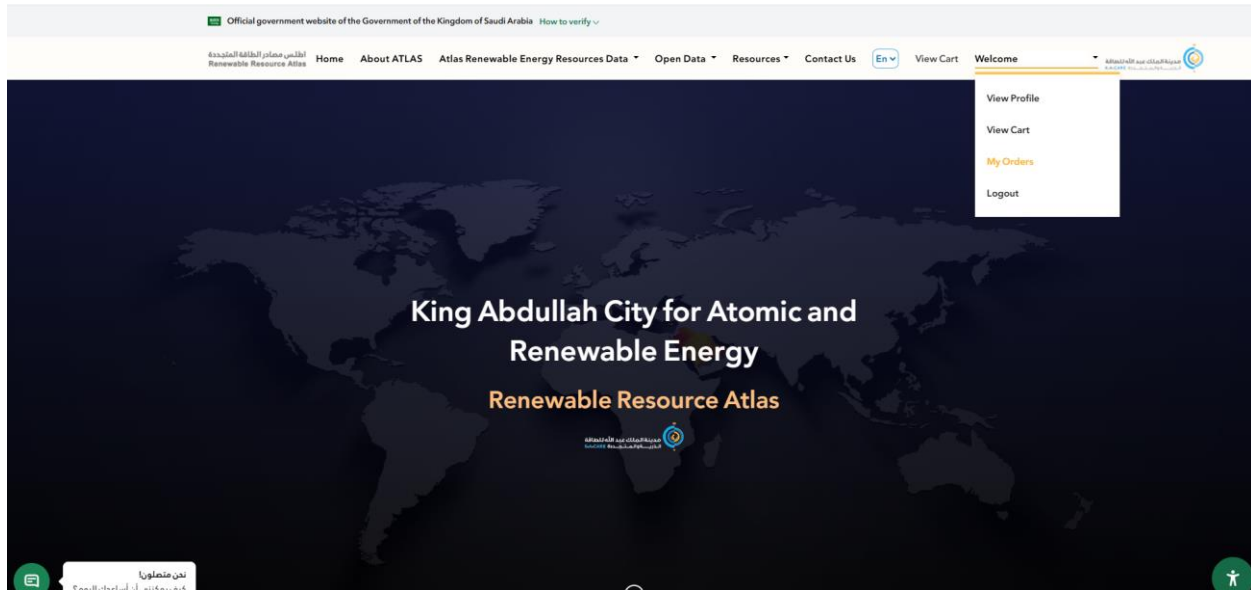


Figure 57: My Orders Tab

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).

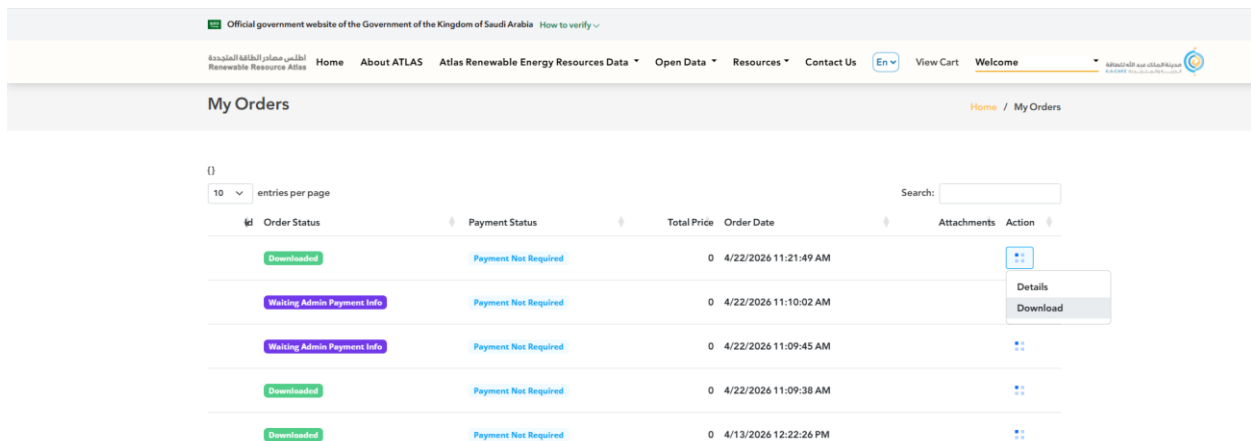


Figure 58: Download Menu



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

AutoSave

K.A.CARE City Site A_Monthly Data 08-01-2014_09-30-2015 - Read-Only - Excel

FileHomeInsertDrawPage LayoutFormulasDataReviewViewAutomateDeveloperHelp

CutCopyFormat Painter

Clipboard

Calibri11

B I U

Font

Wrap TextMerge & Center

Alignment

General

\$ %

Number

NormalBadGoodNeutralCalculationCheck Cell

Styles

Conditional FormattingFormat as Table

Cells

AutoSumFillClear

AC36

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
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)																								
10																									
11																									
12	DateTime	WindSpec	WindSpec	WindSpec	WindSpec	WindSpec	WindSpec	WindSpec	Tempratu	RHAv	BaromAv	WindDire	WindDire	WindDire	AvgAt37m										
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	89.1555	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												
26																									
27																									
28																									
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34																									
35																									

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).

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الطاقة المتجددة Renewable Resource Atlas

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Wind Ground Stations

Wind ground stations measure wind energy resources intended for estimating wind power potentials for utility scale projects. The network stations encompass cup anemometers, wind vanes, temperature, relative humidity and barometer sensors.

For support or to request access to the service, contact: atlasinfo@energy.gov.sa.

Request Service

Service Information

- Service Duration**: 1 business day
- Target Audience**: Citizen, Government, Business
- Service Cost**: Pricing
- Beneficiaries**: Citizen, Resident, Visitor, Companies

About the Service **Terms & Requirements** **How to Apply**

- Click on the service link
- Hover over "Data Actions", then select Wind Ground Stations
- Select your desired station
- Set the location and click continue

نحن متطلوبون كيف يمكننا أن نساعدك اليوم؟

كيفية استخدام الخدمة

Figure 60: Request Service



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

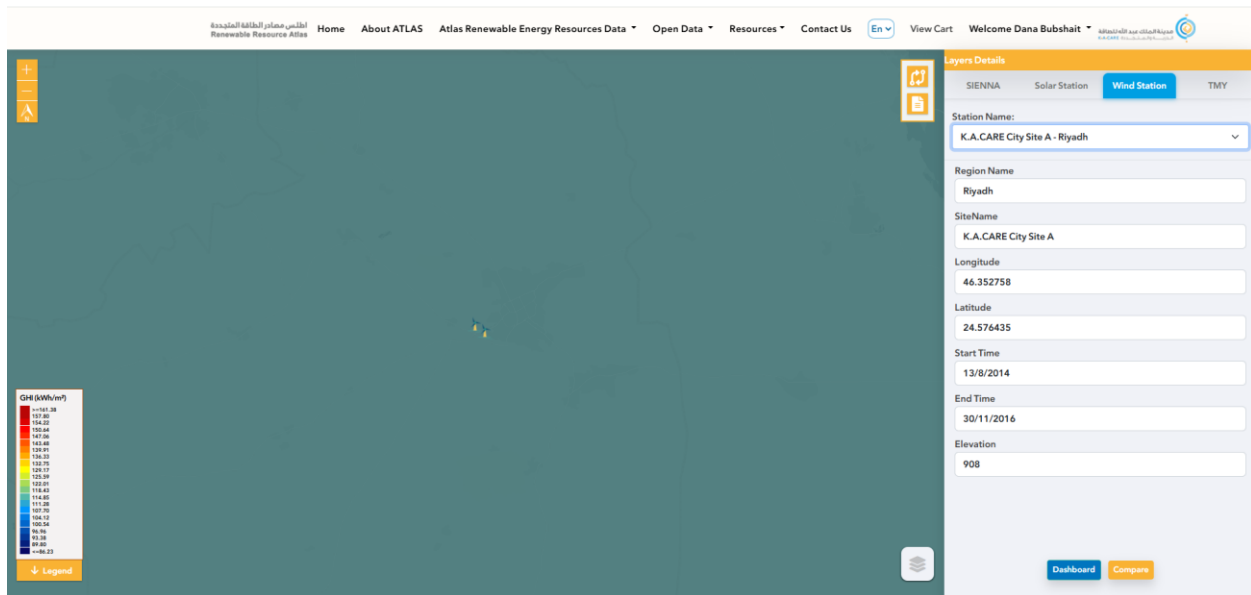


Figure 61: Compare Process

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

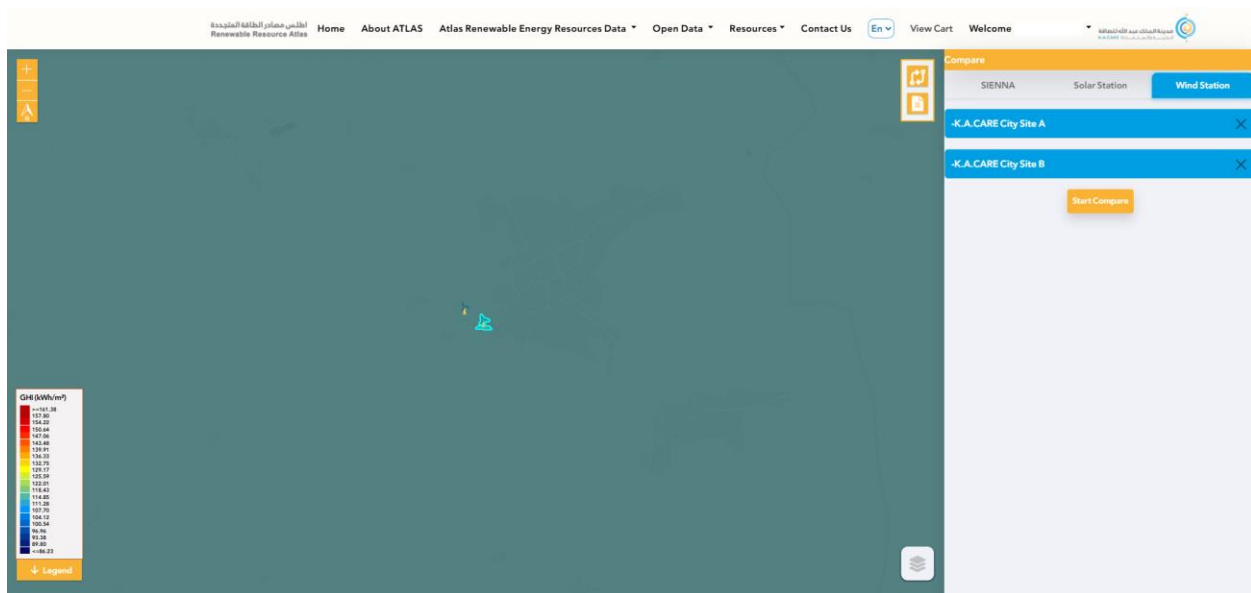


Figure 62: Start Compare Process



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.

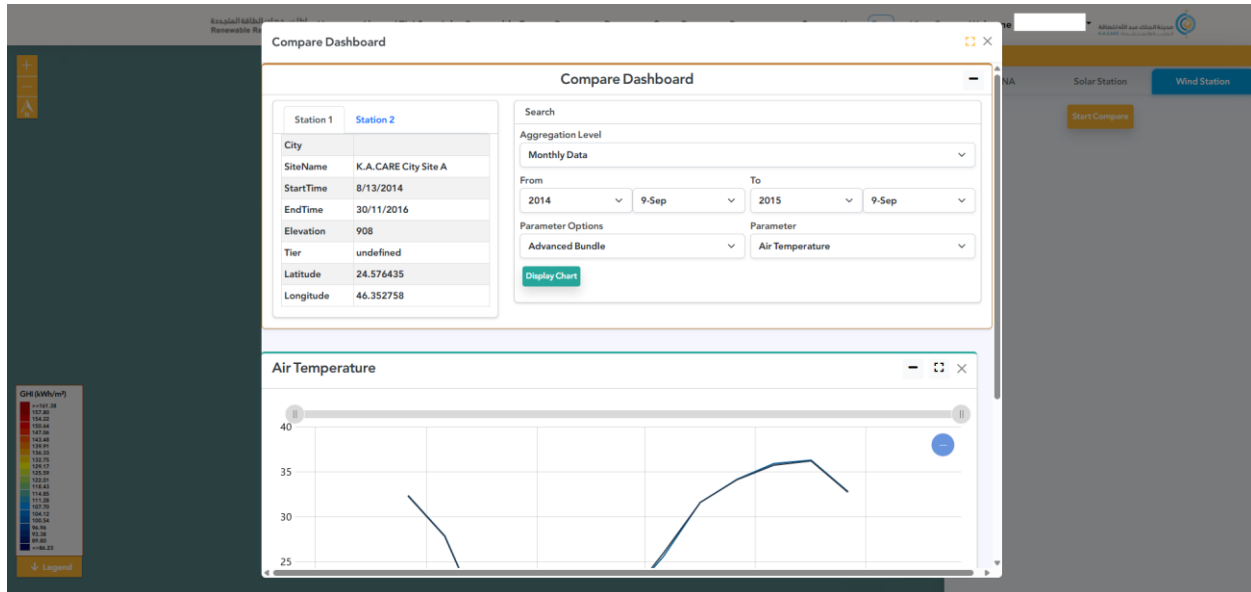


Figure 63: Dashboard Configuration

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).

The screenshot displays the 'SIENNA Data' webpage. At the top, there is a navigation bar with links for Home, About ATLAS, Atlas Renewable Energy Resources Data, Open Data, Resources, Contact Us, and a language selector (En). Below the navigation bar, the main content area is titled 'SIENNA Data'. On the left, a description of the SIENNA model is provided, along with a link for support or requests: atlasinfo@energy.gov.sa. On the right, a 'Request Service' button is prominently displayed. Below this button, a 'Service Information' section lists details such as Service Duration, Service Level Agreement, Target Audience (Government entities, Developers, Companies), Service Cost, Pricing, and Beneficiaries (Government, Private Sector). The footer of the page includes contact information for King Abdullah City for Atomic and Renewable Energy, P.O. Box 2022, Riyadh 11451, and a list of links for Home and About ATLAS. Additionally, there is a section for 'Atlas Renewable Energy Resources Data' with links for Solar ground station and Wind ground station.

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).

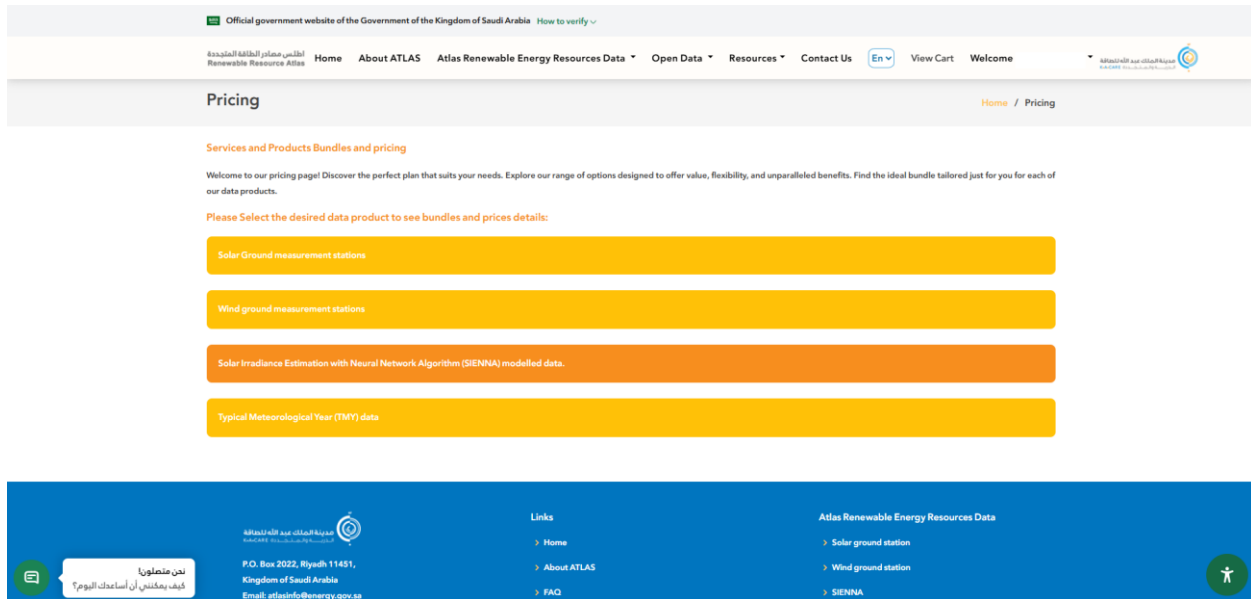


Figure 65: Pricing Details

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

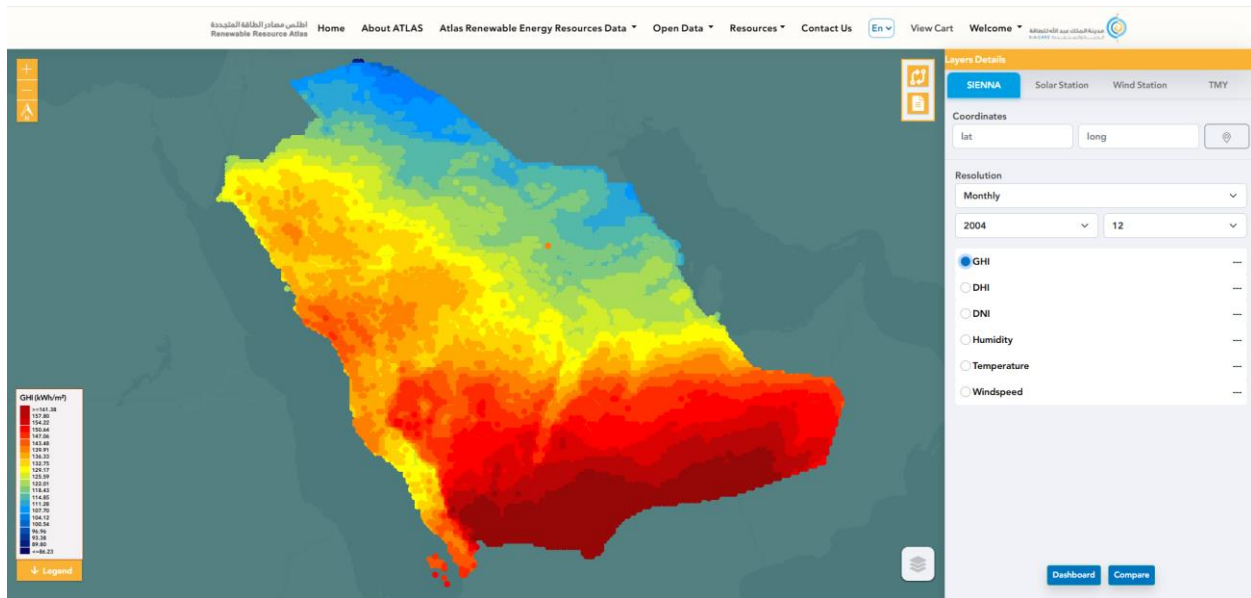


Figure 66: SIENNA Required Information



Click on “Dashboard” to (Figure 67):

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

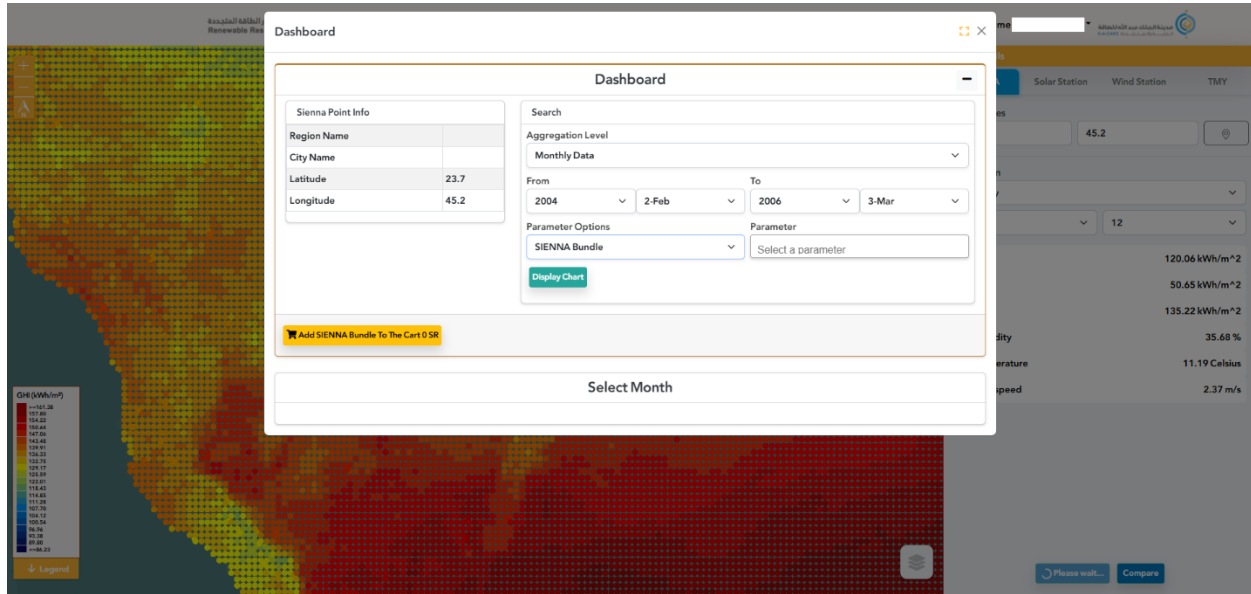


Figure 67: Dashboard Configuration

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

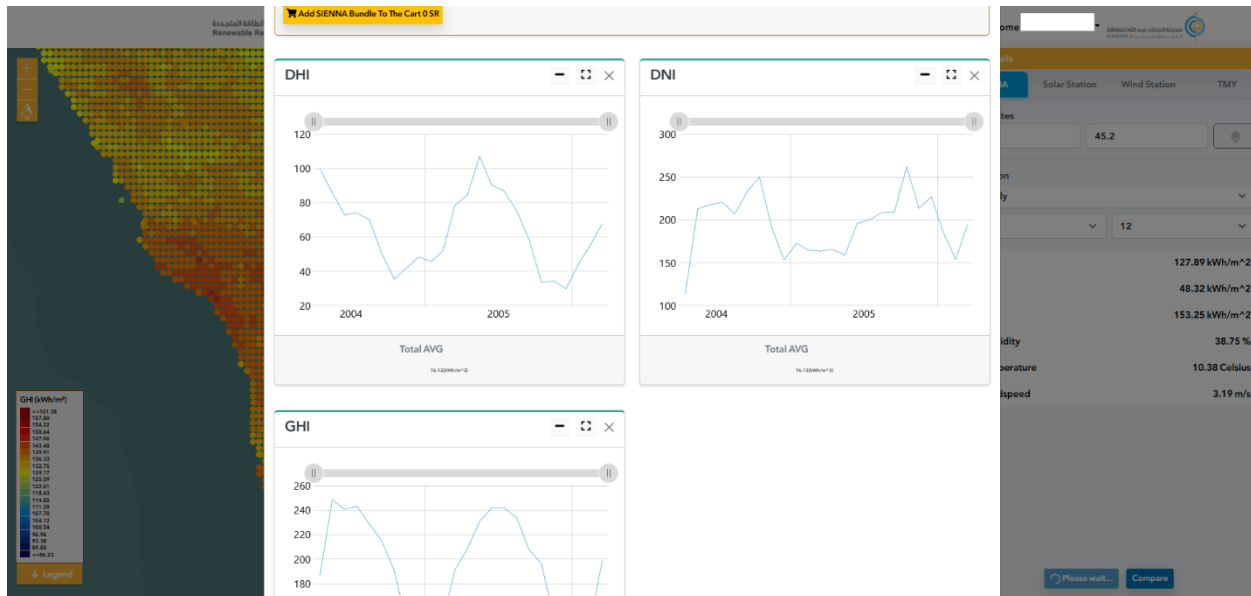


Figure 68: Display Charts



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).

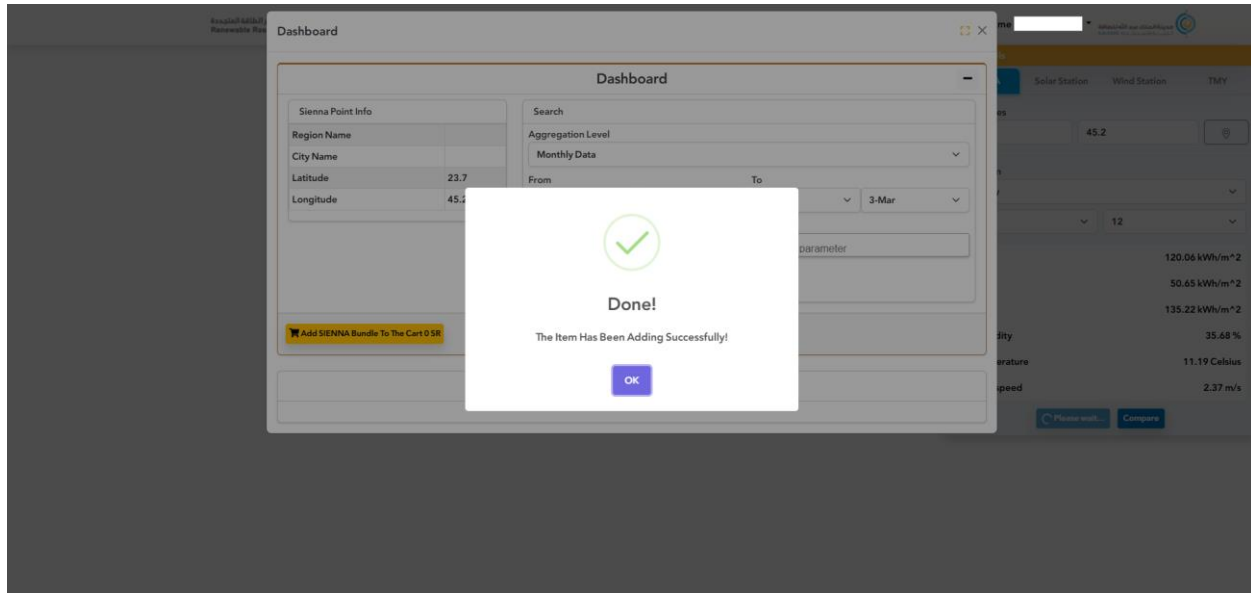


Figure 69: Add Item to Cart

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

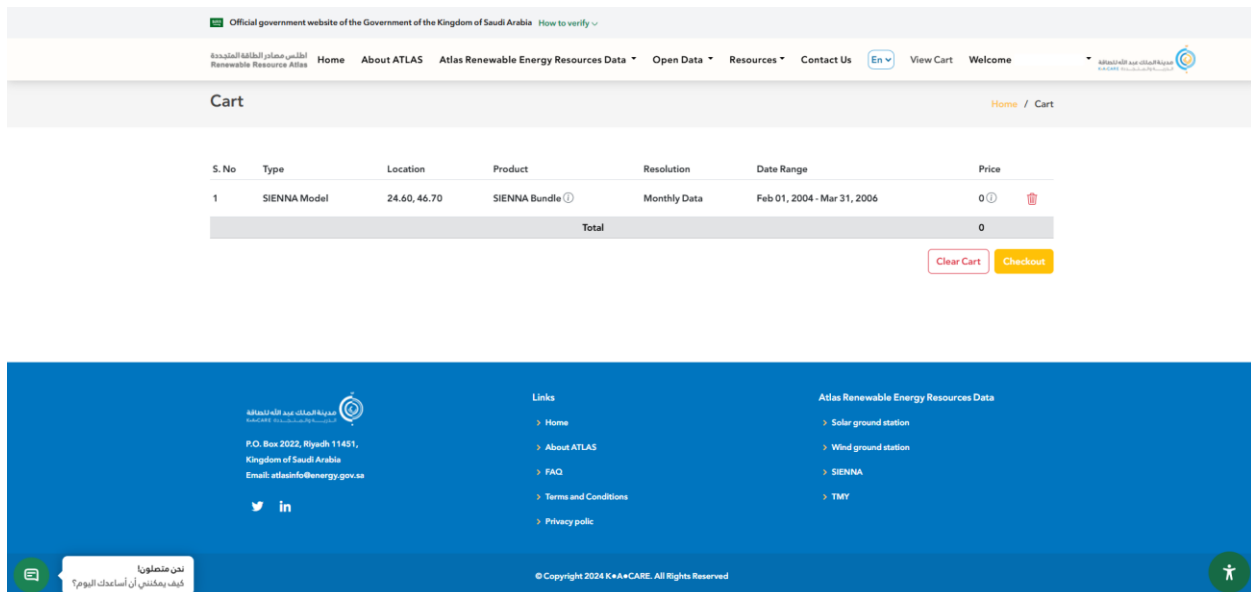


Figure 70: View Cart



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).

Attribute Details :

#	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).

Price Details : SIENNA Model | 23.70, 45.20 | SIENNA Bundle | Monthly Data

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

SIENNA Model 23.70, 45.20 SIENNA Bundle ⓘ Monthly Data Feb 01, 2004 - Mar 31, 2006 0 ⓘ

Total 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).

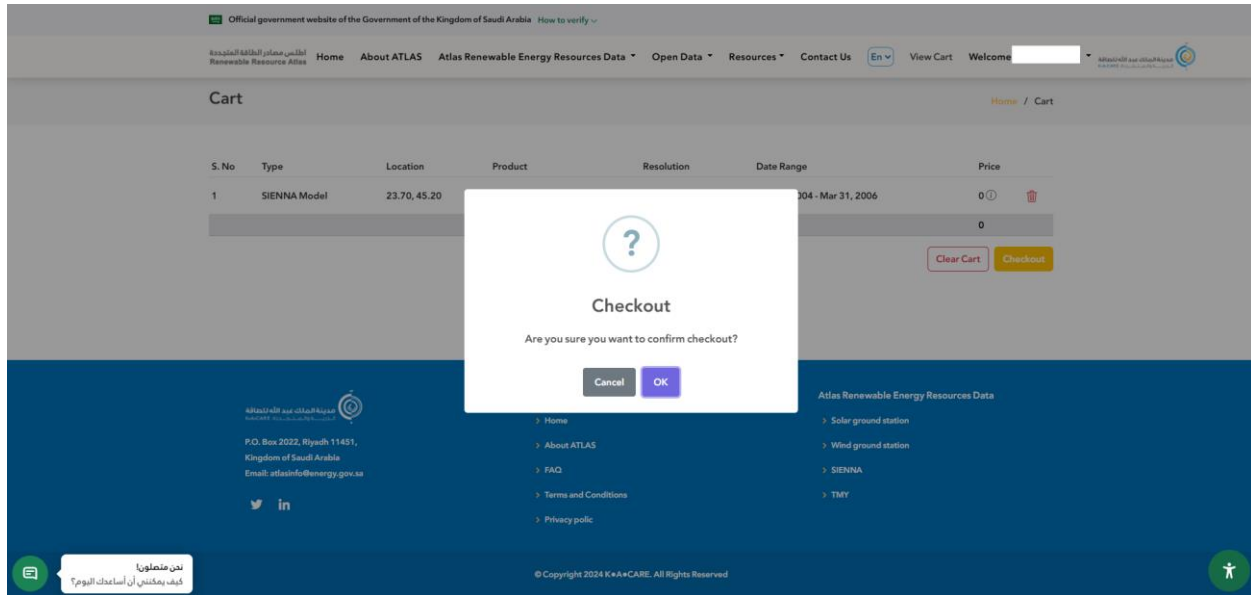


Figure 73: Checkout Process

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”.

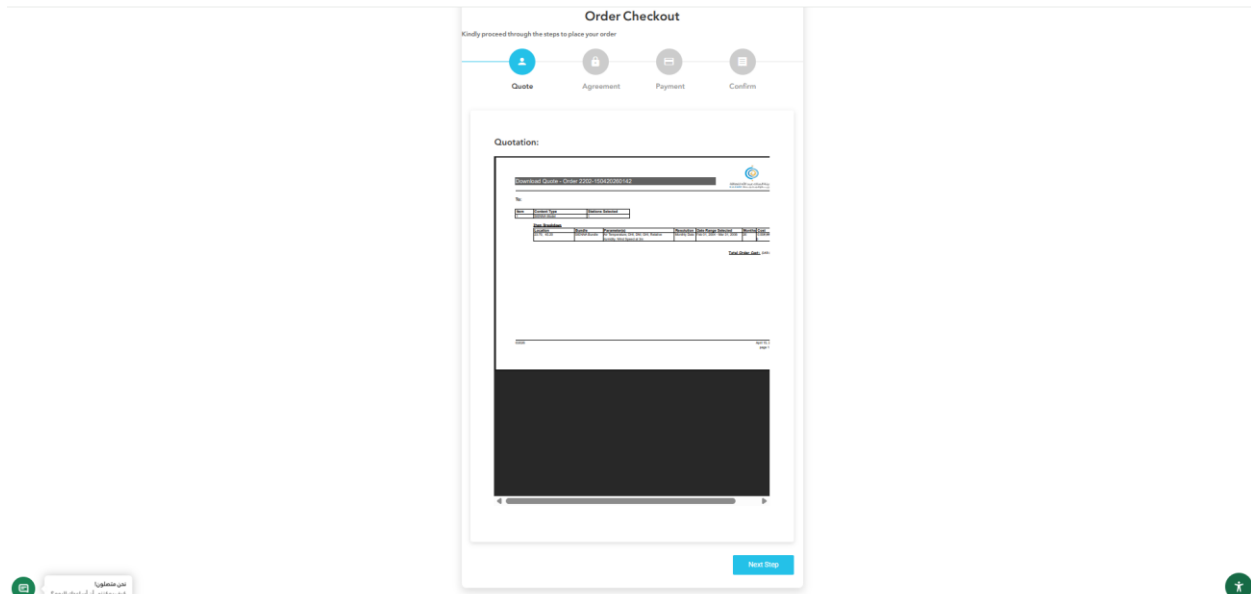


Figure 74: Order Quotation

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

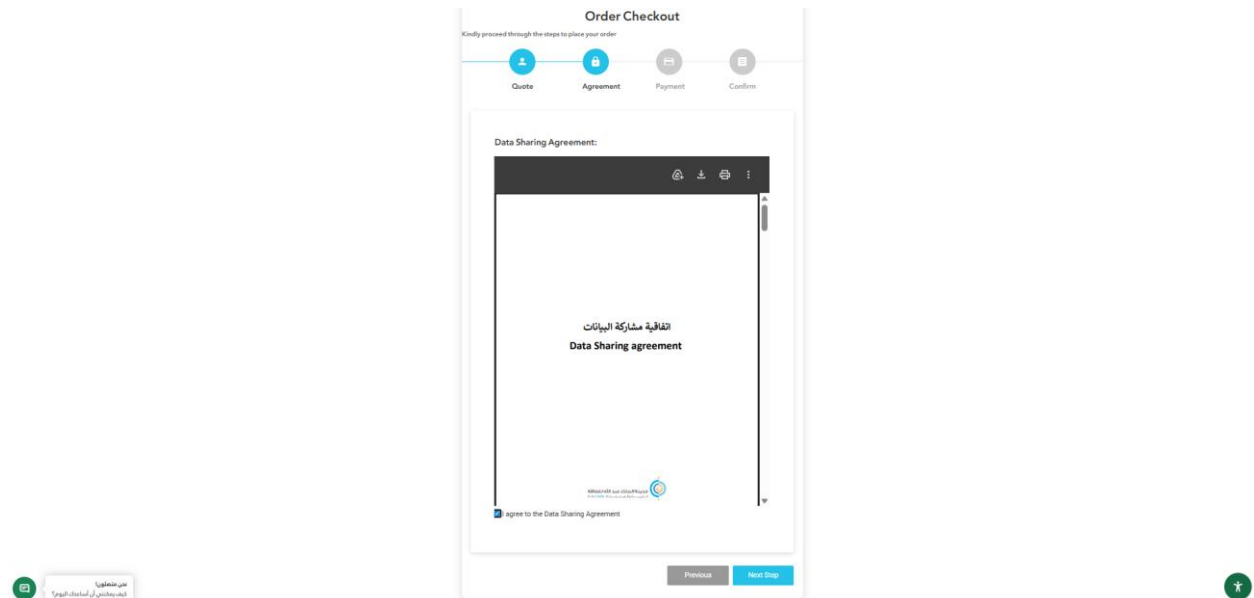


Figure 75: Data Sharing Agreement

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

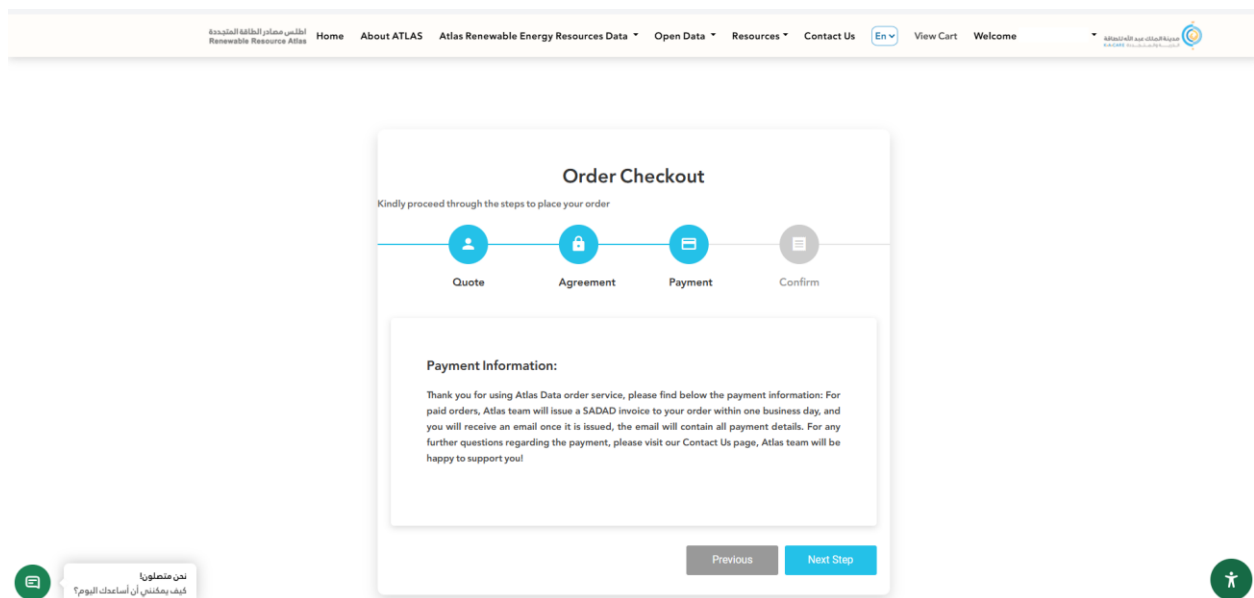


Figure 76: Payment Process



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

Order Checkout

Kindly proceed through the steps to place your order

Quote Agreement Payment Confirm

Confirm :

Full Name:

Email Address:

Phone Number:

By pressing "Submit", I agree to:

1. The final price mentioned in the Quote
2. All the Terms & Conditions in the Data Sharing Agreement
3. Use the specified method of payment

Previous Submit

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).

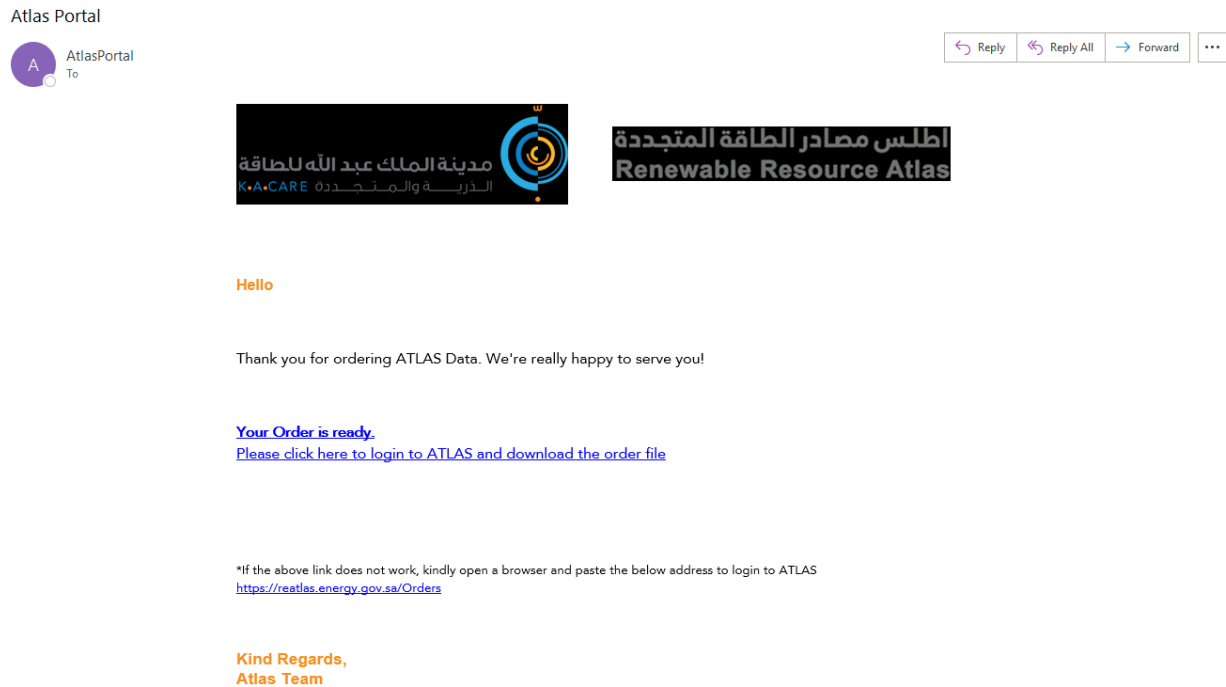


Figure 78: Approved Request Email



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).

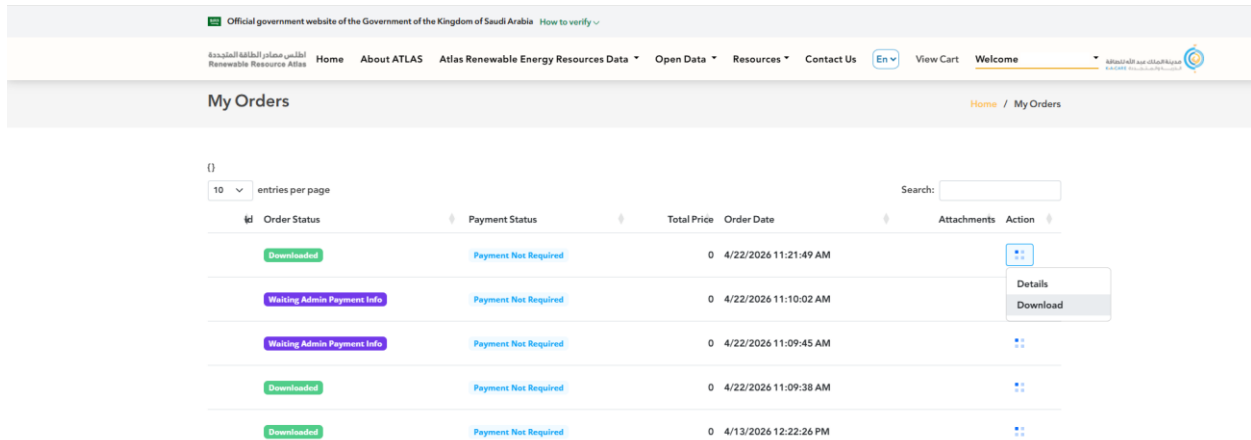


Figure 79: Download Menu

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

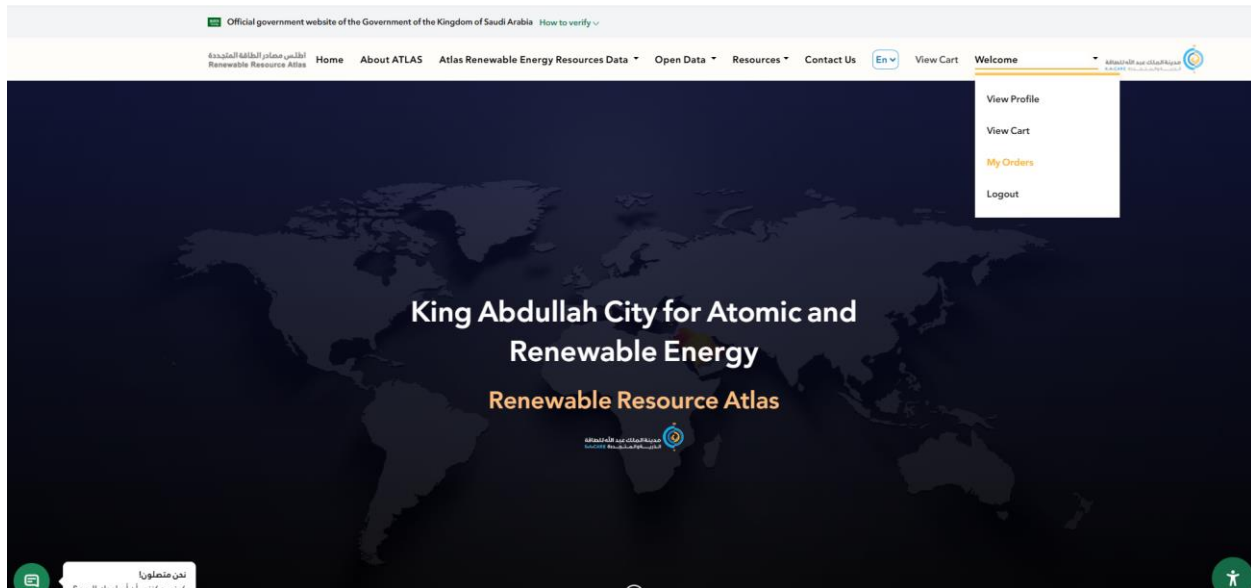


Figure 80: My Orders Tab



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).

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الطاقة المتجددة Renewable Resource Atlas Home About ATLAS Atlas Renewable Energy Resources Data Open Data Resources Contact Us En View Cart Welcome

SIENNA Data Home / SIENNA Data

Description: Solar Irradiance Estimation with Neural Network Algorithm (SIENNA) is a satellite-based solar resource model calibrated by high accuracy ground data that have been developed by K.A.CARE, offering comprehensive data for solar stakeholders throughout the Kingdom of Saudi Arabia. Source: SIENNA makes use of artificial neural networks to model the solar irradiance using imagery from the Spinning Enhanced Visible and Infrared Imager (SEVIRI) instrument on-board the European Union's Meteosat Second Generation (MSG) satellite.

For support or to request the service: atlasinfo@energy.gov.sa

Request Service

Service Information

- Service Duration
- Service Level Agreement
- Target Audience: Government entities, Developers, Companies
- Service Cost
- Pricing
- Beneficiaries: Government, Private Sector

Atlas Renewable Energy Resources Data

- Solar ground station
- Wind ground station

Figure 83: Request Service

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

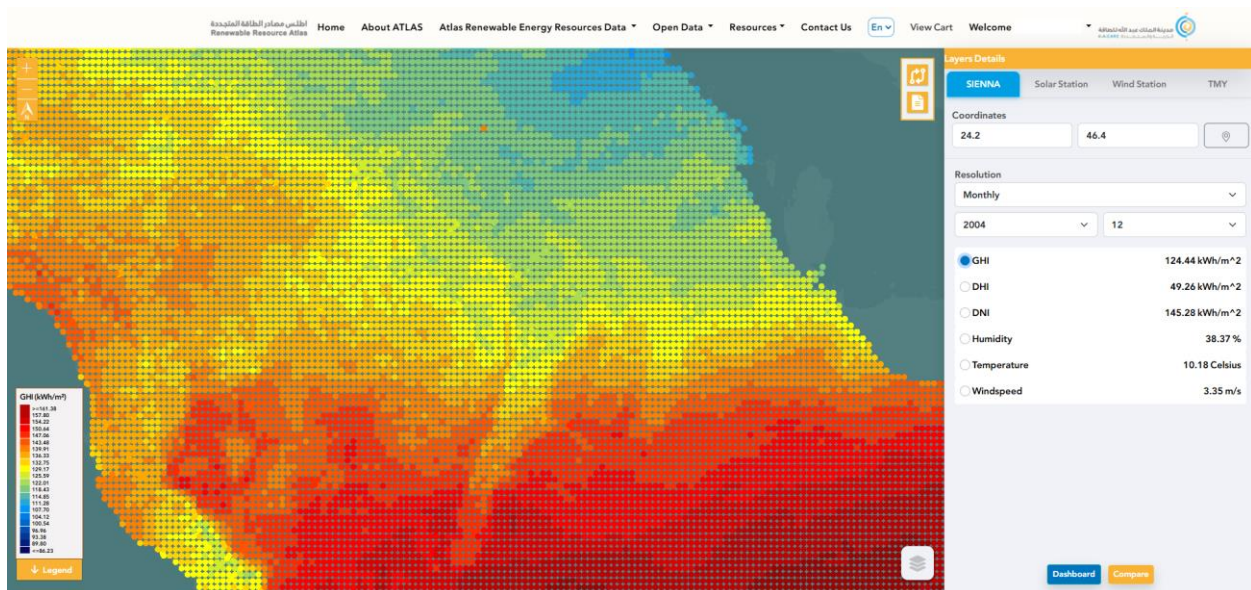


Figure 84: Compare Process



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

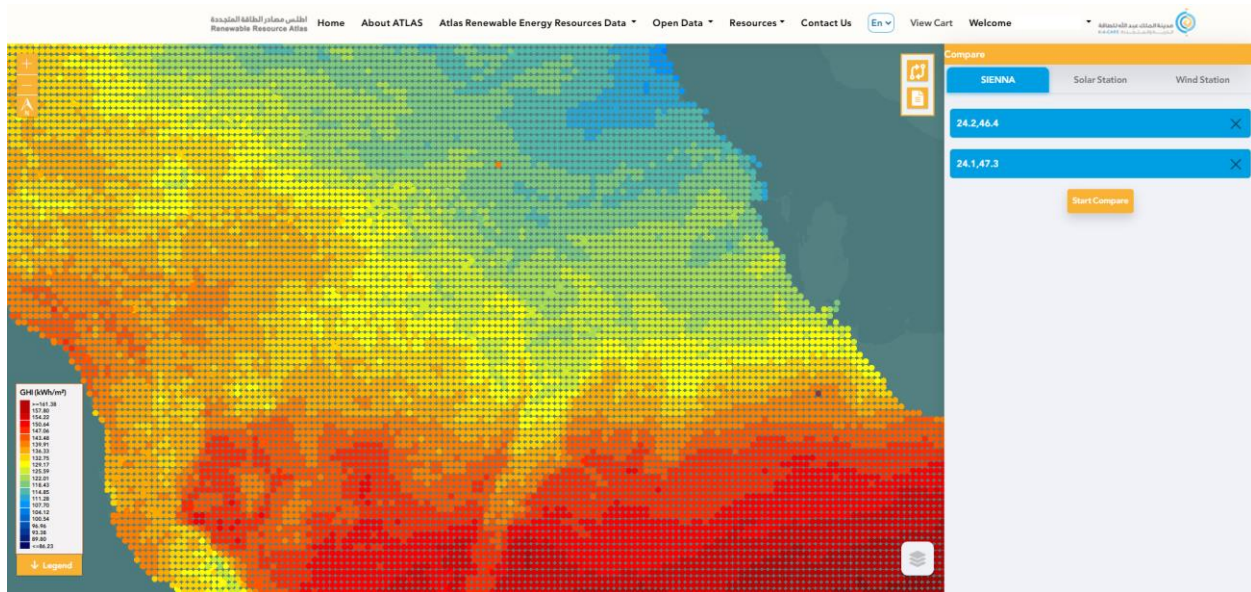


Figure 85: Start Compare Process

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.

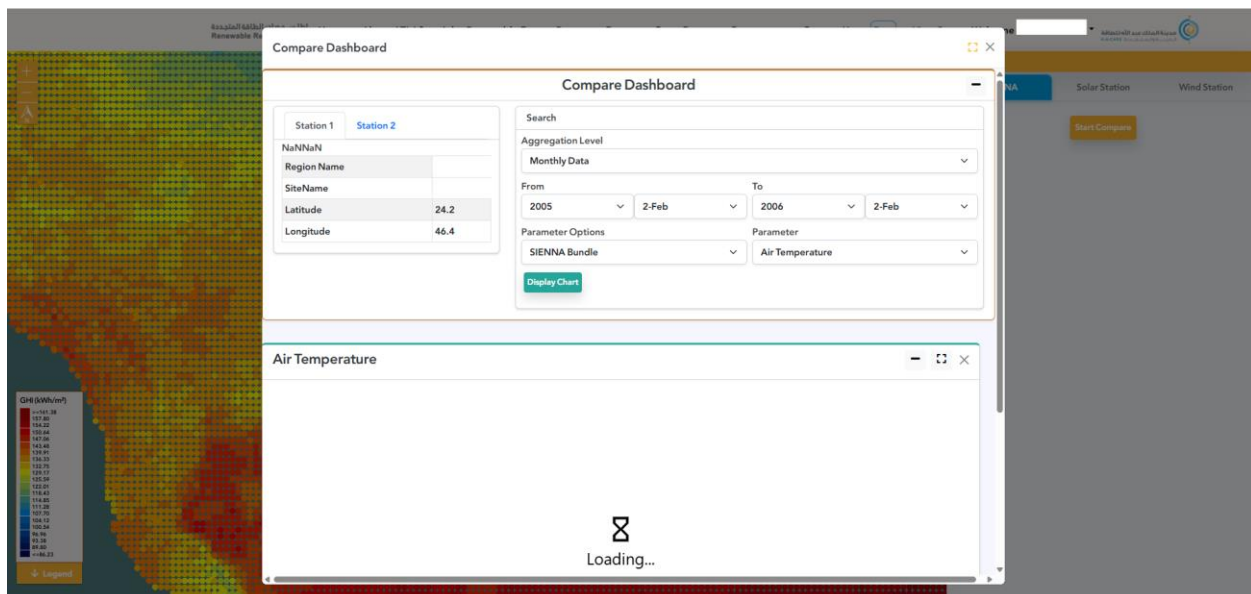


Figure 86: Dashboard Configuration



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).

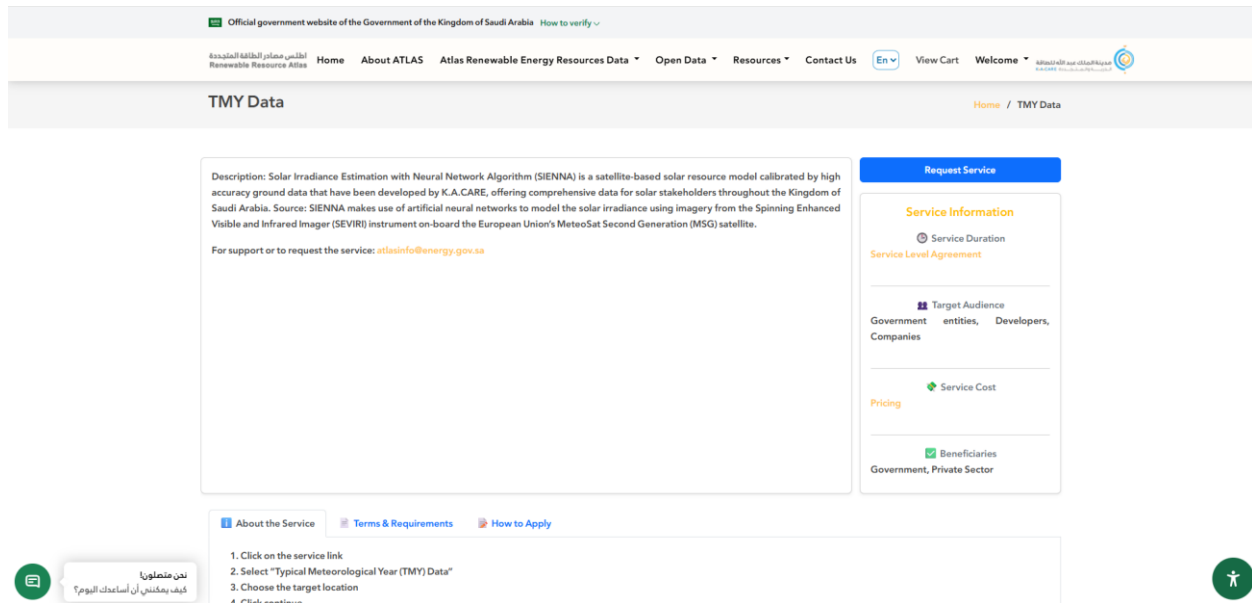


Figure 87: Request Service



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).

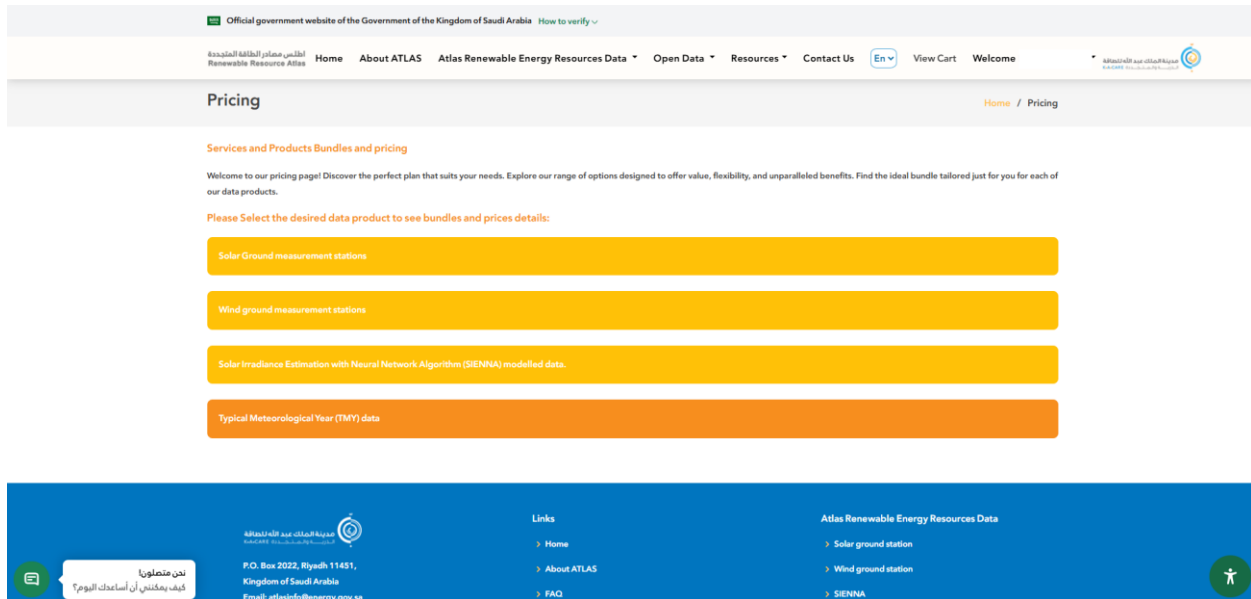


Figure 88: Pricing Details

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

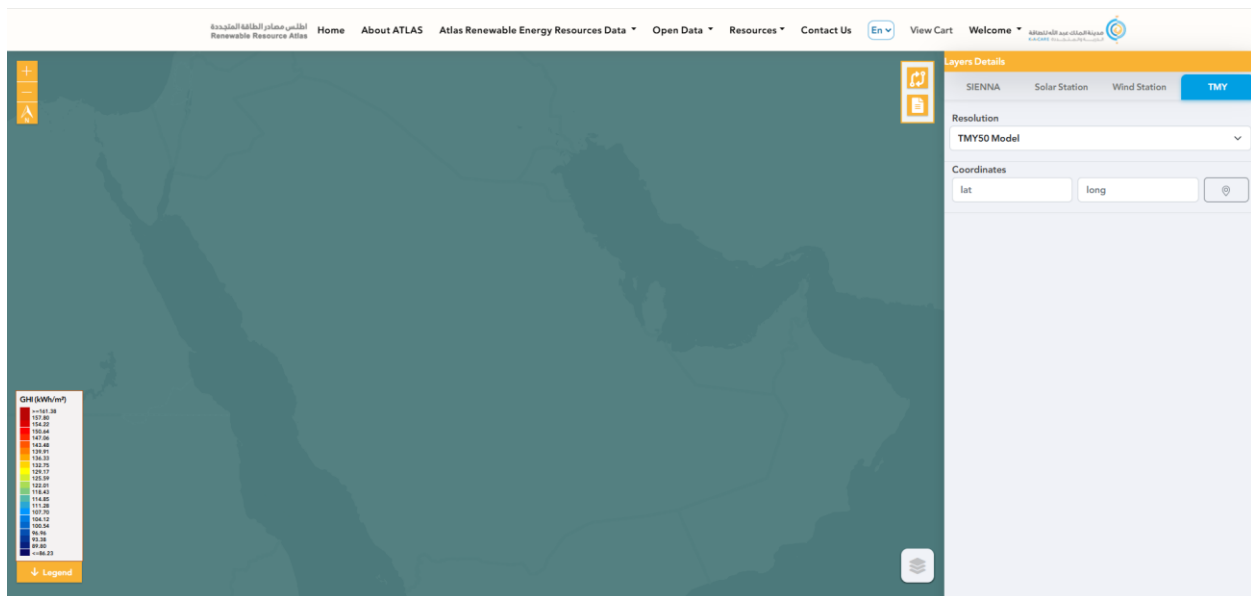


Figure 89: TMY Required Information



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).

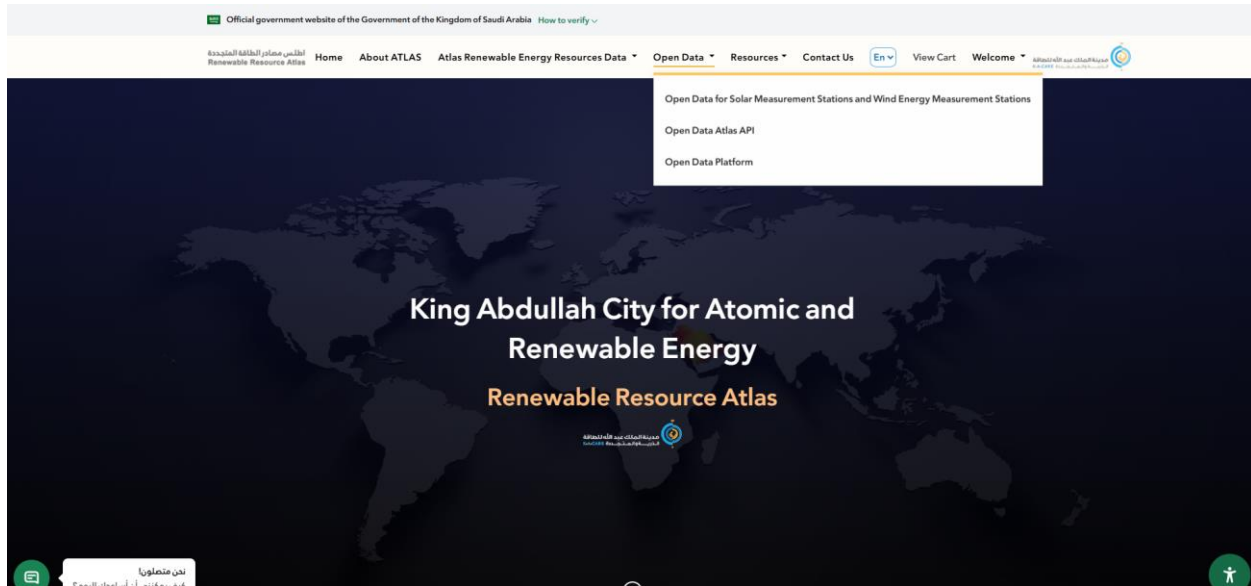


Figure 90: Open Data Tab



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).

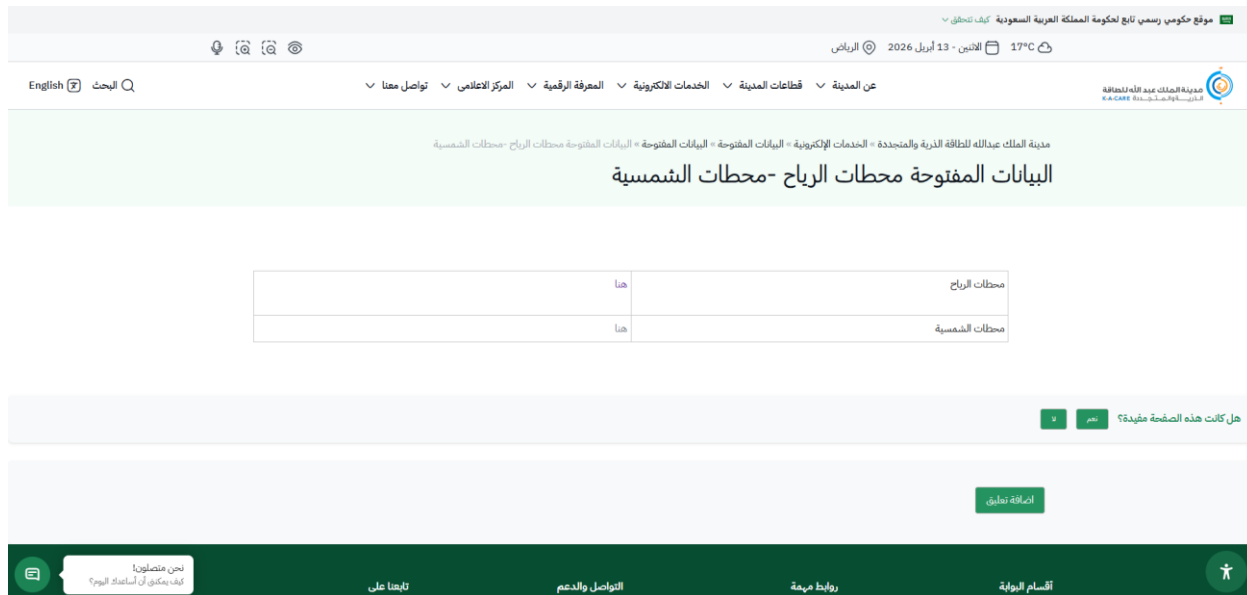


Figure 91: Open Data for Solar and Wind Page



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.

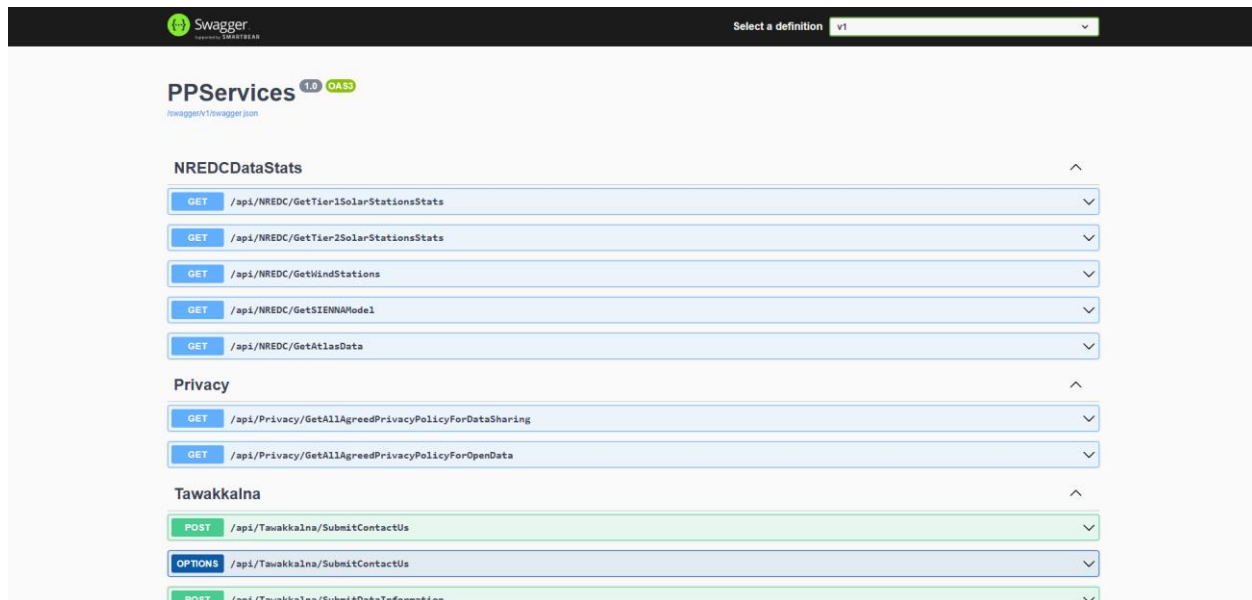


Figure 92: Open Data Atlas API

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.

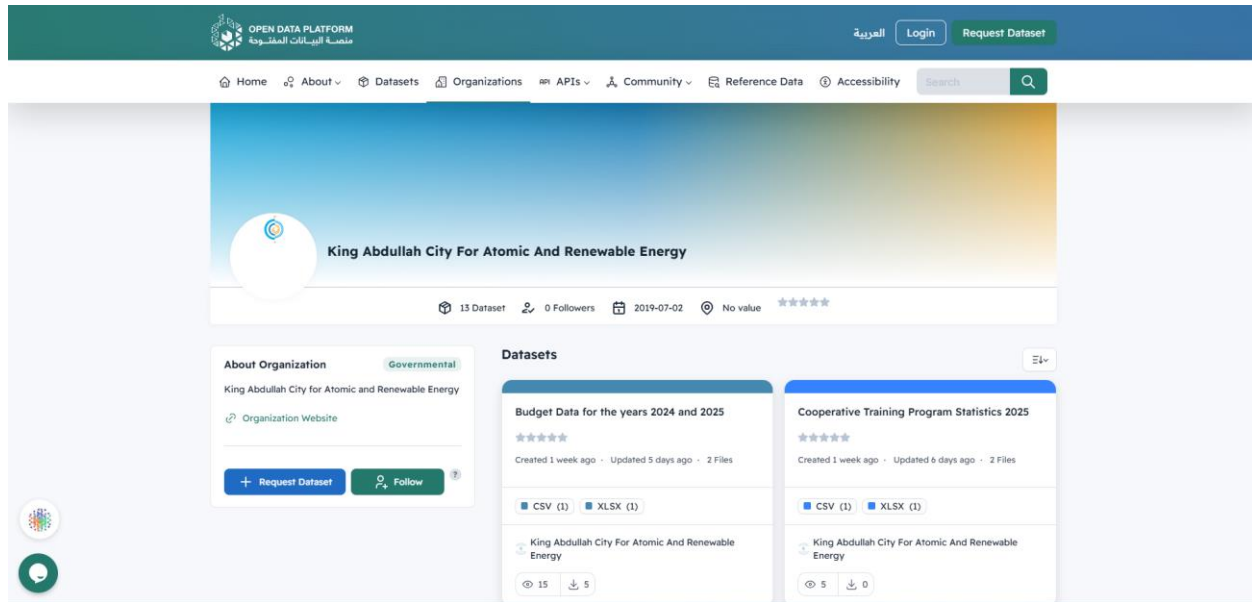


Figure 93: Open Data Platform



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).

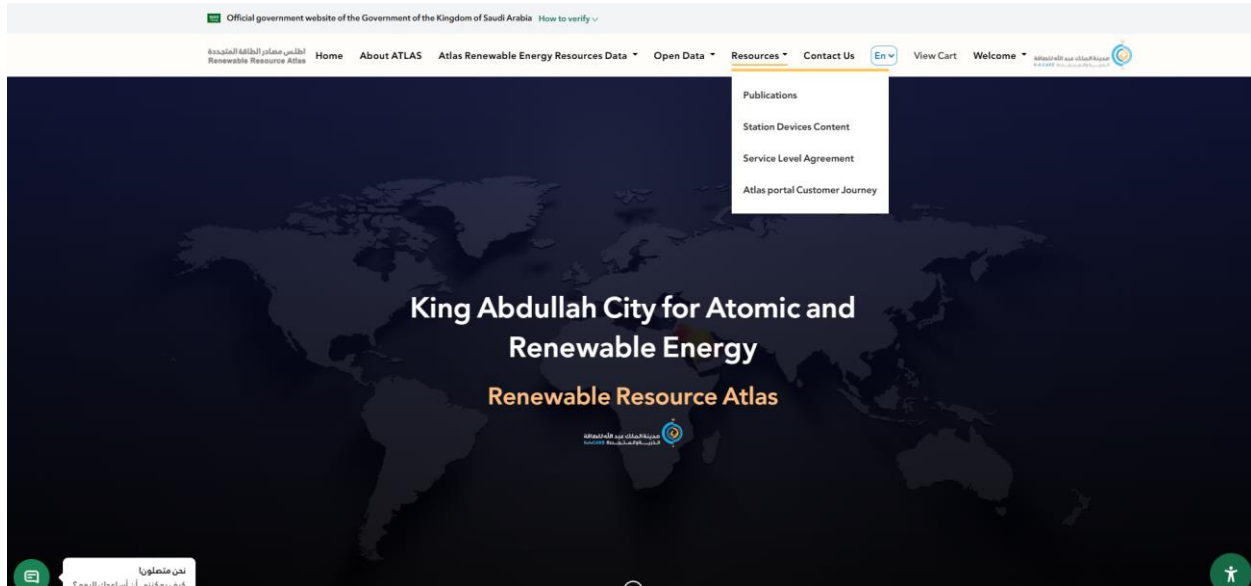


Figure 94: Resources Tab

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.

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Publications

Home / Publications

Publications

These are articles that KACARE staff have published, collaborating with several of its national and international partners.

- [Optimized Cleaning Cost and Schedule Based on Observed Soiling Conditions for Photovoltaic Plants in Central Saudi Arabia](#)

Russell K. Jones, Abdulaziz Baras, Abdullah Al Saeeri, Ayman Al Qahtani, Ahmed O. Al Amoudi, Yousef Al Shaya, Maher Alodan, and Shafi Ali Al-Hsaien. "Optimized Cleaning Cost and Schedule Based on Observed Soiling Conditions for Photovoltaic Plants in Central Saudi Arabia." IEEE JOURNAL OF PHOTOVOLTAICS 6.3, (2016): 730-38.

- [Parabolic Trough Collector Power Plant Performance Simulation for an Interactive Solar Energy Atlas of Saudi Arabia](#)

Mercedes Ibarra, Miguel Frasquet, Abdulaziz Al Rished, Arttu Tuomiranta, Sami Gasim, and Hosni Ghedira. "Parabolic Trough Collector Power Plant Performance Simulation for an Interactive Solar Energy Atlas of Saudi Arabia." AIP CONFERENCE PROCEEDINGS 1734, 160009 (2016): 1-8.

- [Assessment of solar radiation resources in Saudi Arabia](#)

Erica Zell, Sami Gasim, Stephen Wilcox, Suzan Katamoura, Thomas Stoffel, Husain Shibli, Jill Engel-Cox, and Madi Al Suble. "Assessment of Solar Radiation Resources in Saudi Arabia." SOLAR ENERGY 119, (2015): 422-438.

- [Opportunities and Challenges of solar Energy in Saudi Arabia](#)

A. Baras, W. Bamhair, Y. AlKhoshi, M. Alodan, J. Engel-Cox. "Opportunities and Challenges of solar Energy in Saudi Arabia." WORLD RENEWABLE ENERGY FORUM, 4721 Denver (2012).

- [Solar Data Modification for The Ground Solar Measurements Network in Saudi Arabia: Solar Irradiance Correction & Imputation](#)

Alghamdi, Yusuf, Al-Dossari, Hmood, Katamoura, Suzan, and Bafana, Ramzi. "Solar Data Modification for The Ground Solar Measurements Network in Saudi Arabia: Solar Irradiance Correction & Imputation." (Feb 2021), pp. 104.

These are articles that other researchers have published.

- [A Multicriteria Decision Making Approach for Evaluating Renewable Power Generation Sources in Saudi Arabia](#)

Hassan Al Garmi, Abdulrahman Kassem, Anjali Awasthi, Dragan Komljenovic, Kamal Al-Haddad. "A Multicriteria Decision Making Approach for Evaluating Renewable Power Generation Sources in Saudi Arabia." SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS 16, (2016): 137-150.

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).

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Service Level Agreement

Service Level Agreement

In alignment with King Abdullah City for Atomic and Renewable Energy's continuous commitment to enhancing service quality and in adherence to government directives aimed at achieving customer satisfaction, KACARE is actively working towards expanding the availability of swift and user-friendly e-services through the Atlas Portal. It is important to note that the speed of service delivery is contingent upon various factors, including the time required for rectifying missing data when clients fail to provide all necessary information, as well as the processing duration when applications involve third-party entities, such as other government agencies.

Moreover, clients are expected to adhere to the specific Terms and Conditions, which can be found on both the Atlas portal and the official KACARE website. We continuously update and augment our suite of e-services, and we encourage you to stay informed about these offerings.

Help and Support

You can communicate through the following mail for support regarding the Atlas portal: atlasinfo@energy.gov.sa. Visit the [Contact Us](#) page for more information.

Privacy and Confidentiality of Information

The Atlas Portal prioritizes user information privacy and confidentiality, considering our privacy and confidentiality policy an integral part of the terms and conditions for using the Portal. If you would like to learn more about our privacy and confidentiality practices, please visit the [Privacy Policy](#) page for additional details.

Communication and Participation Mechanism

The Atlas Portal is committed to promptly engaging with and addressing all received requests and inquiries through the [Contact Us](#) page or through the Atlas team email atlasinfo@energy.gov.sa.

Business E-Services	Total Time	E-Service Available
Monthly Solar Ground Station Data	1 business day	24 / 7
Monthly Wind Ground Station Data	1 business day	24 / 7

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).

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Atlas portal Customer Journey Home / Atlas portal Customer Journey

Atlas portal Customer Journey

Welcome to Atlas, where your journey toward data-driven insights begins. Atlas provides different products and services for different stakeholders, each product and service business model will depend on which user type. That's why we've designed a seamless customer journey to guide you through every step, from creating an account to data acquisition.

At Atlas, we're committed to providing a customer-centric experience, ensuring you have access to the information and support you need. Our customer journey will provide a clear overview of the process. Along the way, we'll equip you with the knowledge to navigate the Atlas portal, select the data that best suits your needs, acquire the data, and seamlessly integrate it into your workflow. Our team of experts is always here to assist you, providing guidance and resolving any queries that may arise, please find below the Customer Journey from 1 to 8:

1. Sign up/Sign in: Create an account on the Atlas portal or sign in
2. Email confirmation: Confirm your email address by providing the OTP code that has been sent to your email.
3. Choosing the services and products: You can access the Atlas map and choose the data products, location, resolution, periods, bundles/parameters.
4. Data Order: Select the data you want to order and fill in the requested information on the Atlas portal.
5. Data Sharing Agreement: View the order and quotation, read, and confirm that you accept the Data Sharing Agreement before placing an order.
6. Payment: Customers can pay for their order after receiving the payment information via email.
Note: Local university students and researchers will have a 100% discount for all data products.
7. User Receive Data: Customers will receive their data via email from the Atlas team.
8. Survey: Customers will receive a short survey about the customer's journey and experience.

Email Orders Customer Journey

In the event of an unexpected website outage, we've implemented an alternative method to ensure you continue to receive the data products you need. Our email customer journey provides a seamless and personalized experience, allowing you to navigate the entire process from order placement to data delivery through direct communication with our Atlas team as follows:

1. Request Data: Send a request to obtain data to the following email: atlasinfo@energy.gov.sa
2. Sending requirements: We will respond and share the service model
3. Provide personal and order details: Fill out the sent form with the following information:
 - o Full Name
 - o ID/passport number
 - o Organization
 - Student ID (if any)

نحن متعلون
كيف يمكننا أن نساعدك اليوم؟

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)

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Contact Us [Home](#) / [Contact Us](#)

English

Contact Us - Atlas

Name *

Mobile Phone *

Email *

Select Service Type *

Subject *

☐ [الموافقة على سياسة الخصوصية للاطلاع](#)

Write your message here

نحن متطلعون
كيف يمكننا أن نساعدك اليوم؟

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.

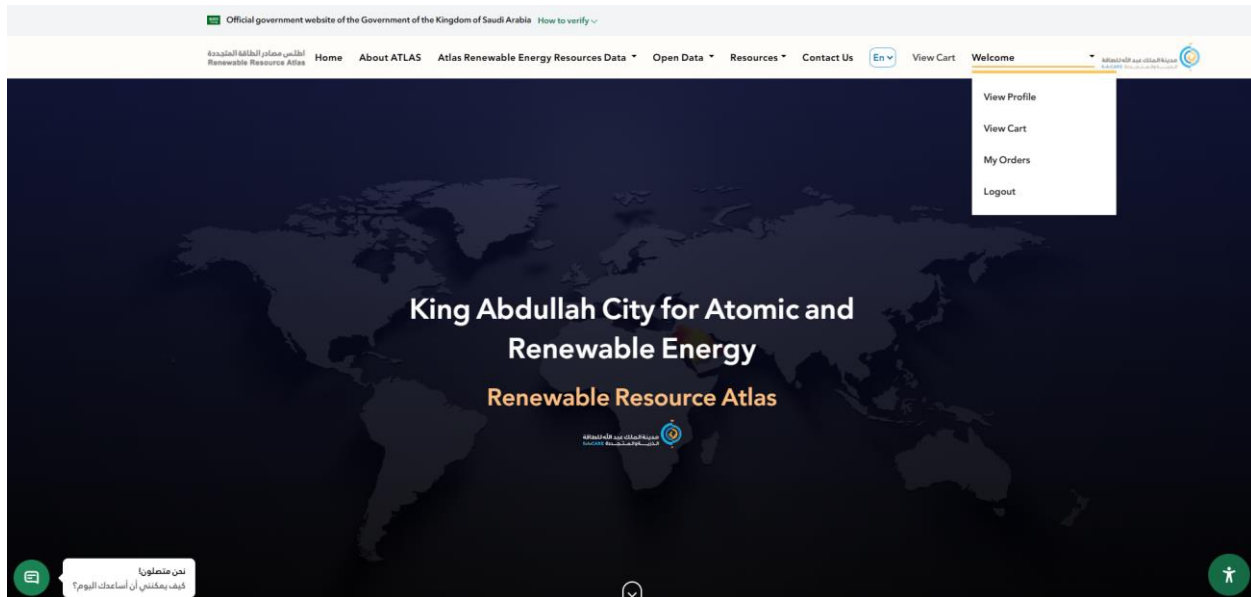


Figure 100: Profile Tab

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).

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الرئيسية مركز الطاقة المتجددة Renewable Resource Atlas Home About ATLAS Atlas Renewable Energy Resources Data Open Data Resources Contact Us En View Cart Welcome

Cart Home / Cart

S. No	Type	Location	Product	Resolution	Date Range	Price
1	Solar Ground Station	Abha Technical Institute	Advanced Bundle ⓘ	Monthly Data	May 01, 2017 - Jun 30, 2020	0 ⓘ 🗑️
Total						0

[Clear Cart](#) [Checkout](#)

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Links
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[Privacy policy](#)

Atlas Renewable Energy Resources Data
[Solar ground station](#)
[Wind ground station](#)
[SIENNA](#)
[TMY](#)

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Figure 102: View Cart

iii. My Orders

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

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الرئيسية مركز الطاقة المتجددة Renewable Resource Atlas Home About ATLAS Atlas Renewable Energy Resources Data Open Data Resources Contact Us En View Cart Welcome

My Orders Home / My Orders

() 10 entries per page Search:

Id	Order Status	Payment Status	Total Price	Order Date	Attachments	Action
1317	Downloaded	Payment Not Required	0	4/13/2026 12:22:26 PM		⚙️
1316	Downloaded	Payment Not Required	0	4/13/2026 12:08:35 PM		⚙️
1315	Downloaded	Payment Not Required	0	4/13/2026 11:28:29 AM		⚙️
1300	Downloaded	Payment Not Required	0	2/25/2026 12:55:17 PM		⚙️

Showing 1 to 4 of 4 entries

نحن متعلقون
كيف يمكننا أن نساعدك اليوم؟

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[Privacy policy](#)

Atlas Renewable Energy Resources Data
[Solar ground station](#)
[Wind ground station](#)
[SIENNA](#)
[TMY](#)

Figure 103: My Orders



iv. Logout

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

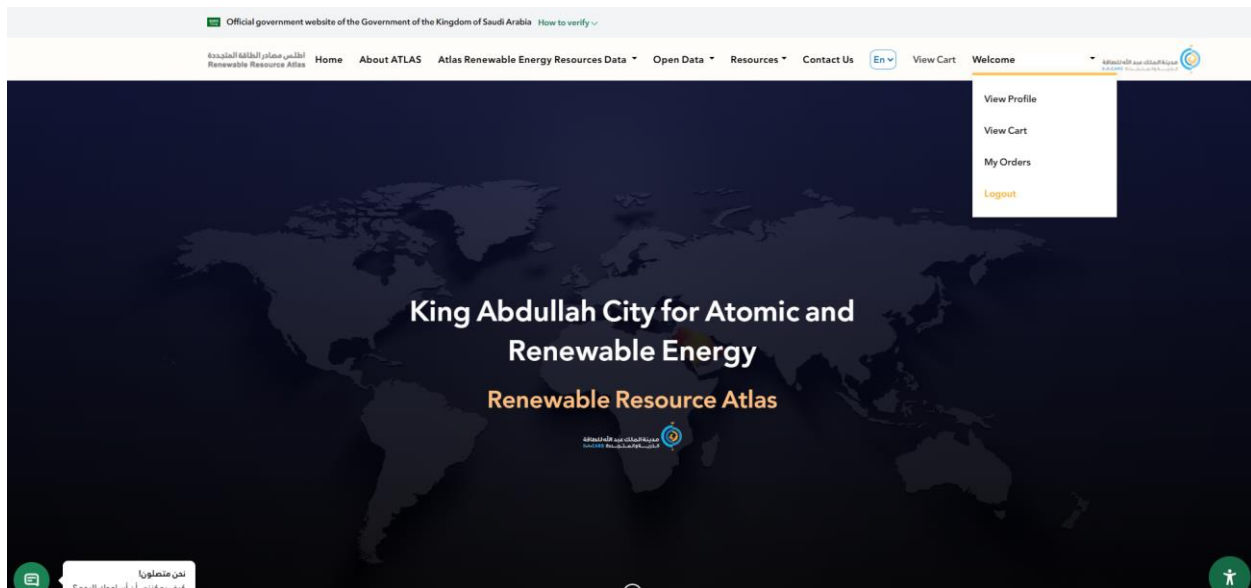


Figure 104: Logout



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.

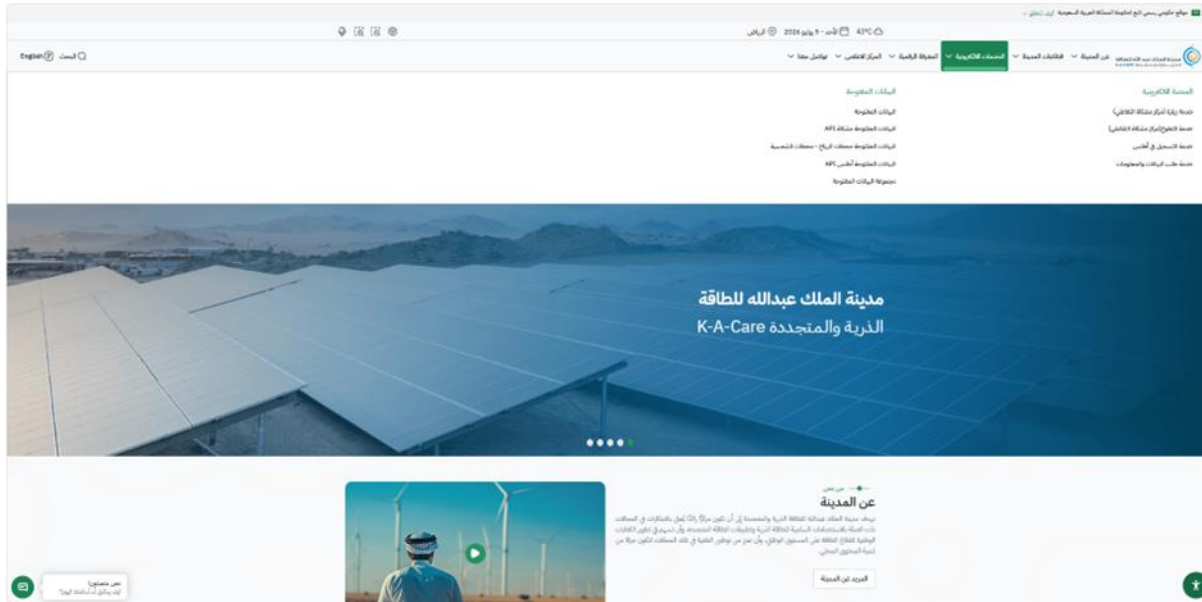


Figure 105: Accessing the Service Through K.A.CARE's Website



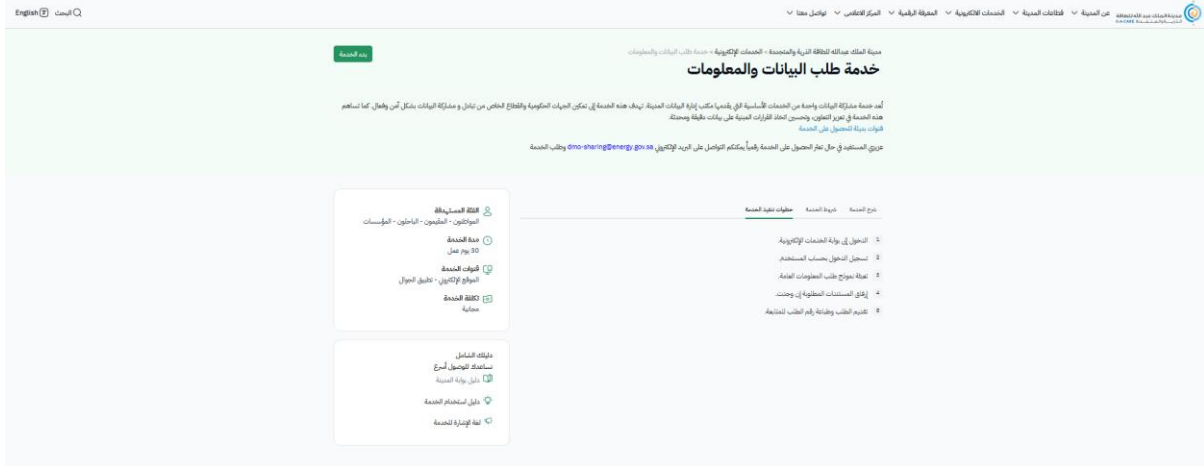


Figure 106: The Service Page on K.A.CARE's Website

B. Sign in Through Nafath

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

Nafath Check / التحقق من البيانات عن طريق خدمة النفاذ الموحد

National/Iqama ID رقم الهوية/الإقامة

✓ Check / تحقق

عزيزي / عزيزتي سيتم التحقق عن طريق خدمة النفاذ الوطني الموحد .. في حال تم التحقق بنجاح سيتم نقلكم إلى صفحة التواصل الخاصة بالجهة

Dear Customer, we'll verify your identity using the National Unified Access Service. Once verified successfully, you'll be redirected to the contact page of the appropriate department

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.

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خدمة طلب البيانات والمعلومات

معلومات المتقدم

بيانات مقدم الطلب

رقم الجوال: * 500000000

الاسم الثلاثي: * ادخل الاسم

رقم الهوية / الإقامة: * 1234567989

البريد الإلكتروني: * abc@example.com

الجنس: * ☐ ذكر ☐ أنثى

الجنسية: * اختر

المدينة: *

المنطقة: * اختر

المستفيد: * ☐ جهات حكومية ☐ قطاع خاص ☐ أفراد

Figure 108: Applicant Information



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.

نموذج طلب بيانات ومعلومات



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.

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نموذج طلب بيانات ومعلومات

خدمة طلب البيانات والمعلومات

البيانات الشخصية معلومات البيانات المطلوبة بيانات مقدم الطلب

1 2 3

البيانات الشخصية

نوع البيانات الشخصية المطلوبة *

فئة البيانات الشخصية المطلوبة *

أصحاب البيانات الشخصية *

البيانات الشخصية الحساسة:

كل بيان شخصي يتعلق بأصل الفرد العرقي أو أصله الإثني، أو معتقد الفرد الديني أو الفكري أو السياسي، وكذلك البيانات الأمنية والجنائية، أو بيانات السمات الحيوية التي تحدد الهوية، أو البيانات الوراثية، أو البيانات الصحية، والبيانات التي تدل على أن الفرد مجهول الأثوين أو أحدهما.

هل تحتوي البيانات الشخصية على بيانات حساسة *

نعم لا

المسوغ النظامي لمشاركة هذه البيانات *

التاريخ الزمني لاستخدام البيانات المطلوبة *

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

