
Caribbean Energy Knowledge Hub (CEKH)

Overview on Information and Knowledge Portals

Platforms: What's Available?

- We believe we only scratched the surface
- Lots of good information available, but most is well hidden or unknown
 - Maps on potentials (solar, wind)
 - Country-comparisons and scorecards on select topics
 - News aggregation and report publication
 - Financing instruments
 - Map of power plants
 - History data on infrastructure investment, tariffs, electricity generation and use, socio-economic data
 - Events, workshops
 - Policy information
 - PLUS: some community features for interaction

Platforms: Considerations and Caveats

- One-purpose v. multi-purpose platforms (fulfil one or more information needs)
- Not everything for all CARICOM countries
- Historic information not always complete for all years (but can still very useful!)
- Language mostly English, some also have Spanish as second language (only very few are primarily in Spanish)
- Many (regional) portals are run outside of Caribbean
- Not many have a specific focus on Caribbean (but included as a subset)

Platforms: Considerations and Caveats

- Quality is very variable between platforms
- Data/Information update schedule unknown
- Lot of available information is outdated and can only be used partially (depending on use case)
- Machine-readable data sets only available on a few portals
- Licensing: not all clearly state what the license of the data is:
 - So, can the data that is published online even be used?
 - If so, what am I allowed to do with the data, and how do I give credit?

Platforms: A Quick Check..



ENERGYDATA.INFO



GLOBAL SOLAR ATLAS
GLOBAL WIND ATLAS | ENERGYDATA.INFO



GLOBAL WIND ATLAS
GLOBAL SOLAR ATLAS | ENERGYDATA.INFO



IRENA Project Navigator

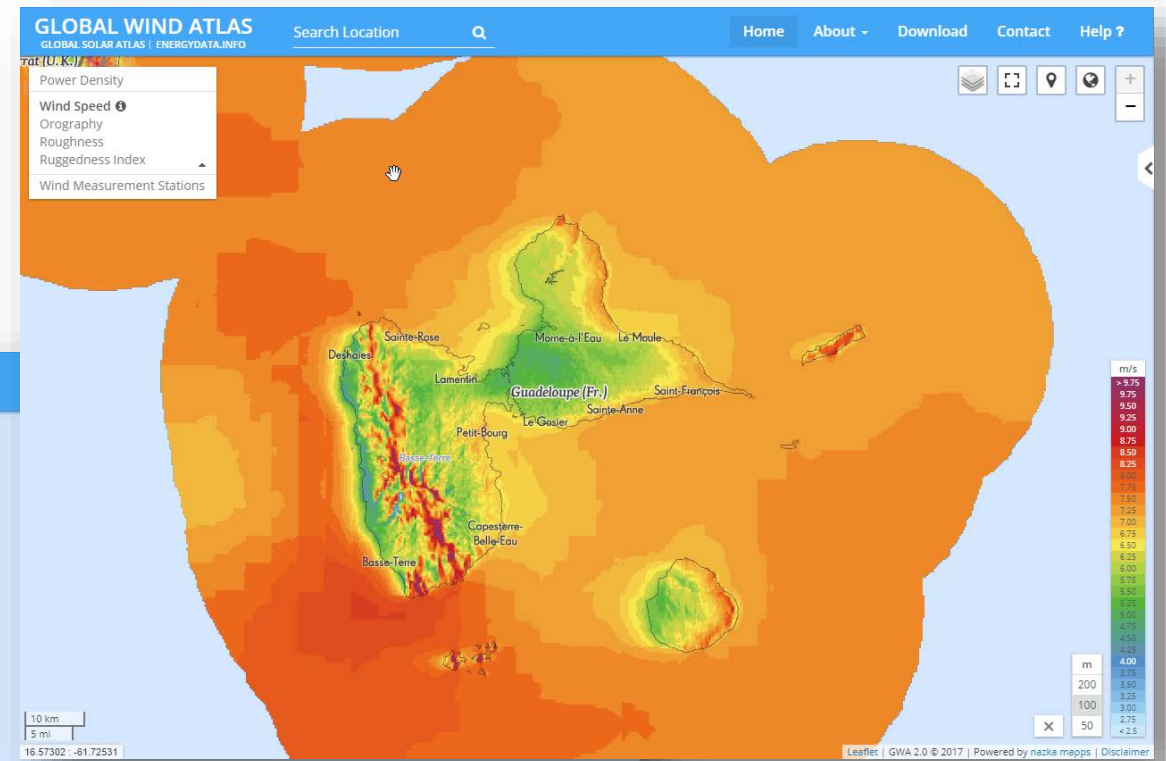
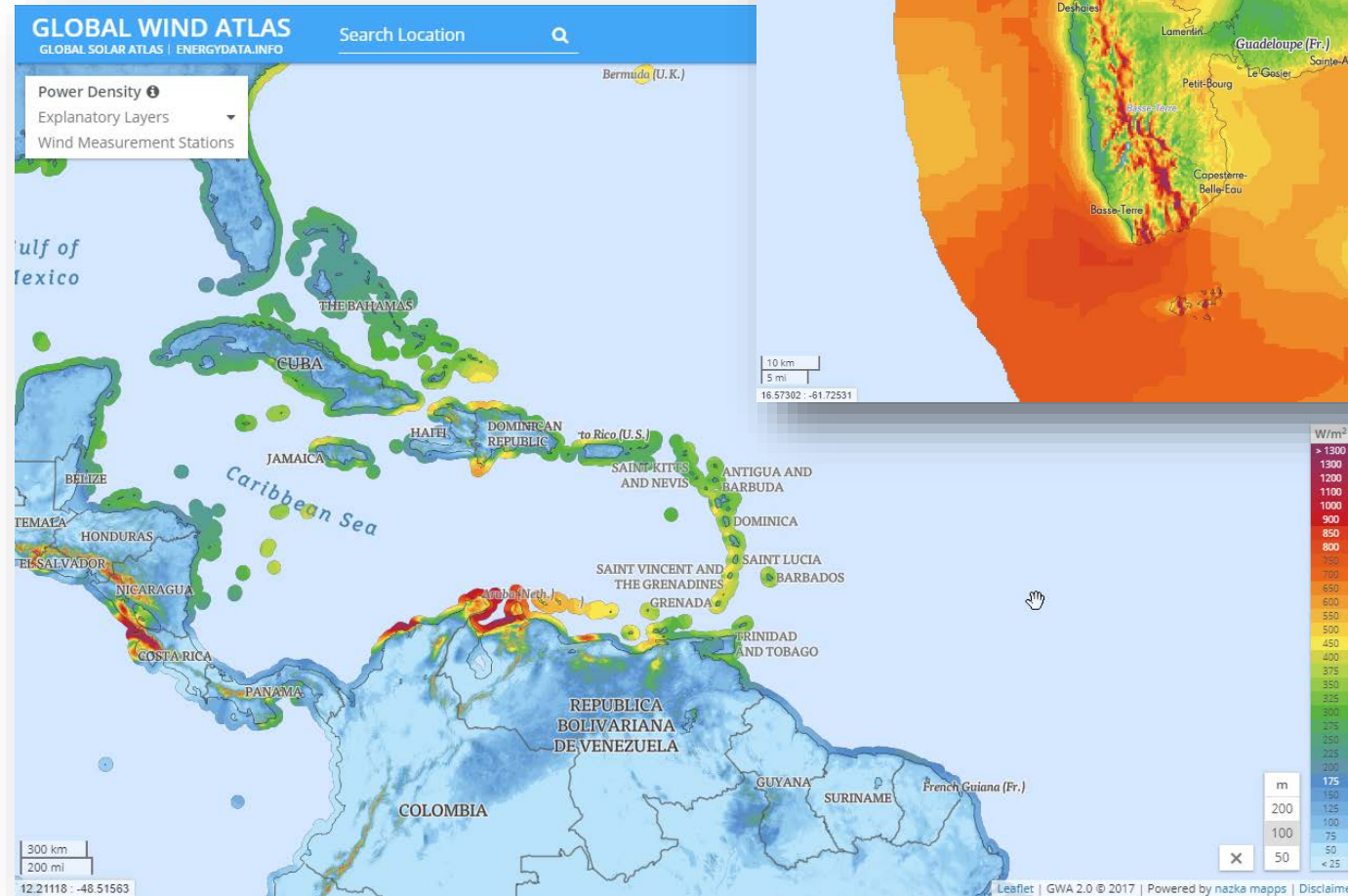


Requirements to Platforms: Any Matches?

- Tried to match knowledge and information needs to platforms
- Based on James' categorization
- First assessment – this can change with time and increased understanding
- Created a “living document” that everyone can add to

- Some examples in the next few slides

Energy Planning: Global Wind Atlas



Support Specific Decisions on Current and Upcoming Topics: CESC

The screenshot displays the Clean Energy Solutions Center (CESC) website's Resource Library search page. The header features the CESC logo with the tagline "ASSISTING COUNTRIES WITH CLEAN ENERGY POLICY" and a search bar with the placeholder "Enter a term". Below the header is a navigation menu with links for Home, Ask an Expert, Training, Policy Briefs, Resource Library, Partners, News, and About. The main content area is titled "Search Clean Energy Policy Resources by Keyword" and includes a search input field, a "Search" button, and a "Retain current filters" checkbox. On the left side, there are two filter sections: "TOPICS" and "DEPLOYMENT SECTORS". The "TOPICS" section includes "Grid Integration" (checked), "Energy Storage" (checked), "Grid Integration Studies (10)", "Grid Investment and Finance (7)", "Grid Planning and Market Structures (9)", "Power System Flexibility (16)", "Reserves and Reliability (7)", and "Smart Grid (24)". The "DEPLOYMENT SECTORS" section includes "Commercial (32)", "Community (15)", "Industrial (31)", "Infrastructure (33)", "Non-profit/Government (53)", "Residential (24)", and "Small & Medium Enterprises (16)". The search results section shows "Search found 92 items" and a "Sort by" dropdown menu set to "Relevance". A search result is displayed with the title "[NEDO Research Related to Battery Storage Applications for Integration of Renewable Energy](#)", a description, and metadata: "Source: U.S. Department of Energy" and "Date: January 2009".

Financing Information: IRENA Project Navigator

The screenshot displays the IRENA Project Navigator interface. At the top, the IRENA logo and navigation menu are visible. The 'Financial Navigator' section is active, showing search filters for Technologies and Regions. Below the filters, a table lists several funding opportunities with columns for Title, Organisation, Website, and Further information.

IRENA
International Renewable Energy Agency

IRENA PROJECT NAVIGATOR

Home Learning Section My Project Workspace Financial Navigator My Profile Sign Out

Financial Navigator

Find funding opportunities with IRENA's Financial Navigator

Choose from the available filters depending on your funding requirements.

You can filter by:

- Technology
- Region/country

The list of available funds will be shown below. Click on "Show Details" for more information on the selected fund.

Use the following filter to find funding opportunities:

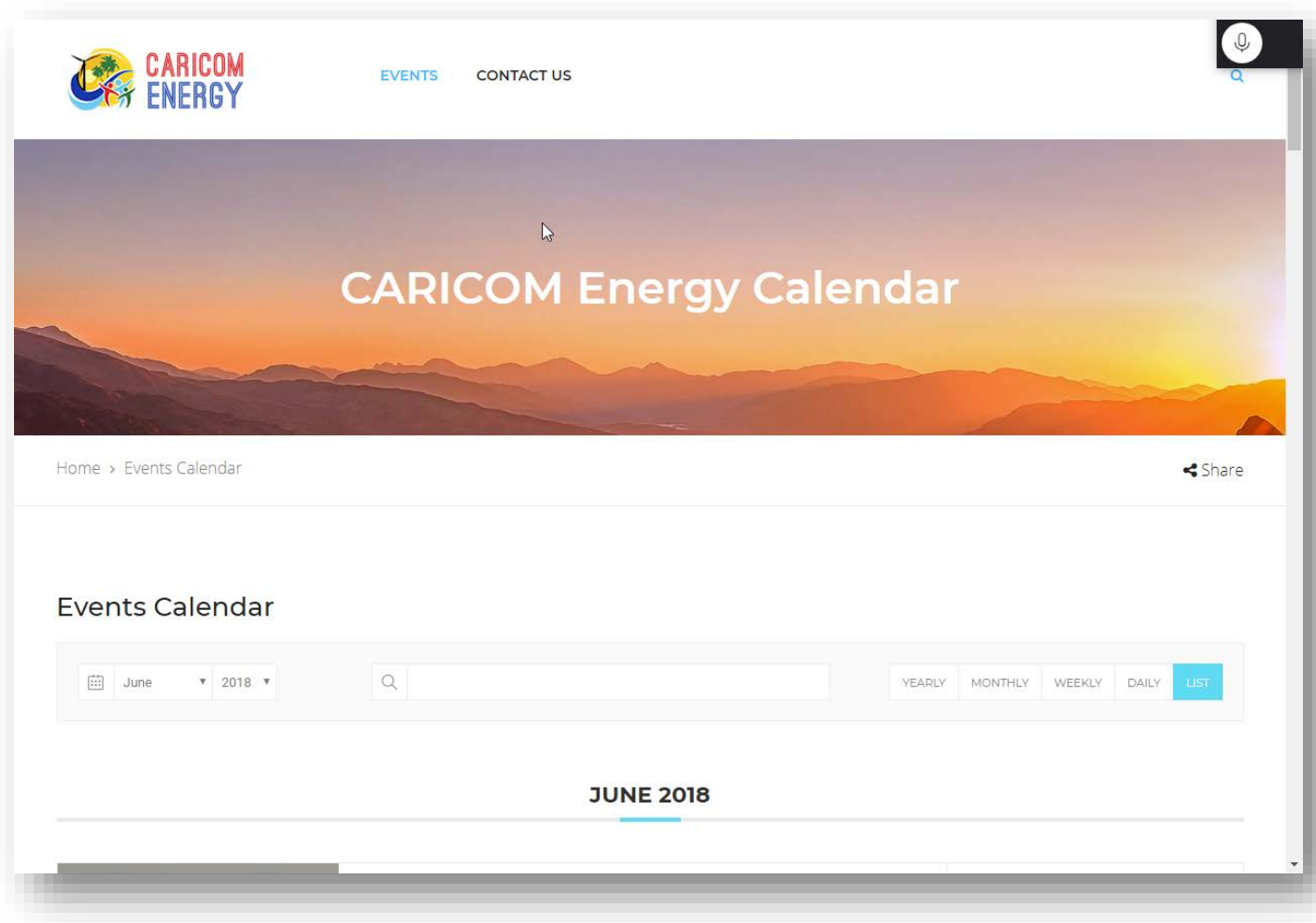
Technologies

Regions

We found the following funds matching your search criteria

Title	Organisation	Website	Further information
ACP-EU Energy Facility	European Commission	Website	Show Details
Climate Catalyst Fund	International Finance Corporation (IFC)	Website	Show Details
Global Climate Partnership Fund	Investment manager : Deutsche Bank (exclusively). Investors: KfW (part of board members), IFC (part of investment committee and board members).	Website	Show Details
Global Energy Efficiency and Renewable Energy Fund (GEEREF)	European Investment Bank (EIB)	Website	Show Details
Clean Technology Fund (CTF)	World Bank group	Website	Show Details
Strategic Climate Fund (including Scaling Up Renewable Energy Program (SREP))	African Development Bank (AfDB)	Website	Show Details
Orio	Netherlands Enterprise Agency (RVO)	Website	Show Details
ELENA	European Investment Bank (EIB)	Website	Show Details
Symbid	Symbid	Website	Show Details

Capacity Building and Events: CARICOM Energy Events Page



The screenshot displays the CARICOM Energy Events Page. At the top left is the CARICOM ENERGY logo, featuring a stylized globe with energy symbols. To its right are navigation links for "EVENTS" and "CONTACT US". A search icon is located in the top right corner. The main header area has a background image of a sunset over mountains and the text "CARICOM Energy Calendar". Below this is a breadcrumb trail "Home > Events Calendar" and a "Share" button. The "Events Calendar" section includes a filter for "June 2018", a search bar, and view options: "YEARLY", "MONTHLY", "WEEKLY", "DAILY", and "LIST" (which is selected). The text "JUNE 2018" is centered below the filter options.

What Did We Miss?

- Help us improve our overview here on Google Sheets:
 - <http://tiny.cc/caricomenergyportals>
 - (for those who like longer links:
https://docs.google.com/spreadsheets/d/1leoDKF_dNwB9TwbHBUpso3_Rh4DICyM18shkiGL4n5g/edit?usp=sharing)
- Take a few minutes to review and check it out!
 - Which additional platforms ‘solve’ your knowledge needs?
 - Which platforms could add value to the Knowledge Hub?
 - Comment if you think there are errors (Insert -> Comment)

Developing the Hub: a New Platform?

- Lots of Information is already out there
 - Use technology to re-use data?
 - Linking data v. copying data
 - Create new insights on existing data, based on user needs
- Lots of non-technical unknowns when building a new platform
 - Funding
 - Governance
 - Functional, non-functional, organizational requirements
- Setting Up a Successful [...] Platform: A 9-Point Checklist [Video]:
 - <http://tiny.cc/h0invy>

10% of a Platform is Technology & Coding

- Technology:
 - Set up servers, install software, set parameters and options
 - Programming of specifications
- Other 90%:
 - Stakeholder network, engagement with others, “Helpdesk” on topical issues
 - Content creation and curation
 - Translation, annotation, taxonomy development (content definition)
 - Project management & Human Resources
 - Verification & testing, documentation
 - Outreach, branding, communication
 - Specification of integration with other systems (especially when linking data!)

Linked (Open) Data

- ★ make your stuff available on the web (whatever format)
- ★★ make it available as structured data (e.g. excel instead of image scan of a table)
- ★★★ non-proprietary format (e.g. csv instead of excel)
- ★★★★ use URLs to identify things, so that people can point at your stuff
- ★★★★★ link your data to other people's data to provide context

5-Star-Model by Sir Tim Berners Lee (see: <https://www.w3.org/DesignIssues/LinkedData.html>)

- Put information in context and thereby create knowledge
- Less replication/duplication (offering same datasets in different places) and keep data maintenance cost low
- Encouragement to re-use existing datasets
- More innovation because datasets can be put in a new context and lead to interesting applications -> create new knowledge!
- If set up right, can also link content from different languages
 - Simple example: link data for “Dominican Republic” and “República Dominicana”

Linking Data v Copying Data

Linking Data

- Last updates included automatically
- Efforts to define and include data in platform are initially higher
- 'Remote' data needs to be accessible on-demand
- Data is stored on 'remote' server

Copying Data

- Updates need to be downloaded and imported
- No initial integration efforts necessary, but 'data cleaning' and normalization necessary
- Remote data can be inaccessible, but is still available locally
- Data stored on local server

Linked Data Example: OpenEI

The screenshot displays the OpenEI website interface for the Barbados: Energy Resources page. The page features a map of the Caribbean region with Barbados highlighted in red. Below the map, there is a 'Country Profile' table and an 'Energy Resources' table.

Name	Barbados
Population	277,821
GDP	\$4,451,000,000
Energy Consumption	0.02 Quadrillion Btu
2-letter ISO code	BB
3-letter ISO code	BRB
Numeric ISO code	052

Resource	Value	Units	Rank	Period	Source
Wind Potential	0	Area(km ²) Class 3-7 Wind at 50m	81	1990	NREL ↗
Solar Potential	704,490	MWh/year	196	2008	NREL ↗
Coal Reserves	Unavailable	Million Short Tons	N/A	2008	EIA ↗
Natural Gas Reserves	113,300,000	Cubic Meters (cu m)	101	2010	CIA World Factbook ↗
Oil Reserves	1,790,000	Barrels (bbl)	96	2010	CIA World Factbook ↗

Screenshot from <https://openei.org/wiki/Barbados>

Linking Information: Climate Tagger

- Improve user experience by
 - Increasing consistency through standardized vocabularies
 - Bridging gaps between different portals, organizations, thematic sectors, languages
 - Linking content based on ‘tags’
- Climate Tagger & Renewables Tagger
 - Scans, sorts, categorizes and enriches data and information (“tagging”)
 - Improves efficiency and performance of knowledge management systems

Tags by climatetagger:

[clean energies](#), [energy](#), [energy efficiency](#), [global climate](#), [projects](#), [renewable energies](#), [rural electrification](#), [solar](#), [specific financing mechanisms](#), [United Nations Industrial Development Organization](#), [waste](#)

Thank you!

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