

ESBJERG

**WORLD ENERGY
CITIES PARTNERSHIP
AGM IN 2022
5TH TO THE 8TH
OCTOBER 2022**



ENERGISING LIFE



DRIVING THE ENERGY TRANSITION: **EXPLORING THE SUSTAINABLE JOURNEY IN ESBJERG**

It is my pleasure on behalf of the city council of Esbjerg to make a formal bid to host the Annual General Meeting for the World Energy Cities Partnership in 2022.

Since the beginning of our membership, Esbjerg has played an active role in the World Energy Cities Partnership. We have benefitted from the network, and to show our gratitude we hope to host the AGM in 2022.

2022 stands as an exciting year in Esbjerg because we take further steps on our journey as a Sustainable EnergyMetropolis. Many different activities contribute to this journey; our goal to be carbon neutral by 2030 and the commitment to using the C40 Climate Action Planning framework.

The port has always played a vital role in the development of the city of Esbjerg. This will also be the case in terms of sustainability. The Port of Esbjerg has joined the global Getting to Zero Coalition, and the port's sustainability strategy focuses on efficient and sustainable port operations, green transition, and on minimizing the climate and environmental impact of our port-related operations.

Truly, the port has come a long way. From being the largest fishing port in Denmark to becoming the national hub for the offshore oil and gas industry from the 1980's and forward. Around the millennium, a new business area emerged: offshore wind power. Several companies in Esbjerg contributed, when the first large-scale offshore wind farm in Denmark, Horns Reef I, was built in the North Sea in 2002.

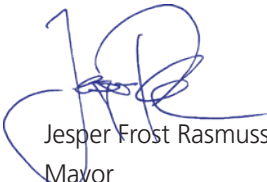
Today Esbjerg remains the capital of Denmark's offshore industry. A highly specialized cluster of companies is located here. From the extraction of oil over natural gas to offshore wind turbines; energy technology has become our strength.

We now stand on the brink of an even more important journey. A journey which connects sustainability with growth, and we must forge a path where these elements are not mutually exclusive. The national energy transition has been accelerated with the decision made by the Danish Parliament to phase out oil and gas production in the North Sea by 2050.

Naturally, it is my hope, that Esbjerg does not only follow suit, but becomes a leading player, that helps our country's transition from black to green energy. This transition includes a new artificial energy island in the North Sea with a minimum capacity of 3 GW, and Port Esbjerg is ready to be part of the project.

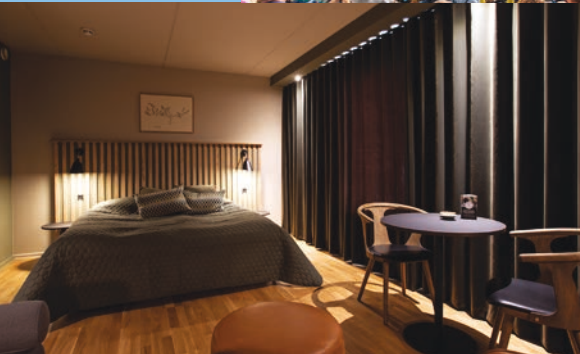
Other exciting things are in the making in Esbjerg, and I would be thrilled to share these things at the AGM in 2022 under the headline: Energy transition based on public and private partnerships.

I look forward to welcoming you to Esbjerg.



Jesper Frost Rasmussen
Mayor

WECP MEETING ESBJERG 2022



DRAFT PROGRAM

WEDNESDAY OCTOBER 5, 2022

- Morning: Arrival
- Afternoon: Officers committee meeting
- Evening: Networking reception

THURSDAY OCTOBER 6, 2022

- Morning: Official opening session at the Town Hall of Esbjerg
- Morning: Partnerships as a game changer in the energy sector. New industries further the green transition and at Semco Maritime A/S Power-to-X, Carbon Capture and the future of district heating will be on the agenda.
- Lunch in Ribe
- Afternoon: Visit at Ribe Cathedral and a guided tour of the Port of Esbjerg
- Evening: Formal dinner at Musikhuset Esbjerg

FRIDAY OCTOBER 7, 2022

- Morning: Research symposium on green energy and sustainability at Aalborg University. The University has strong traditions of interdisciplinary work and the research environment covers most aspects of green energy issues, placing a strong focus on collaboration with external partners from companies and academia.
- Conference panel
- Lunch in Esbjerg
- Afternoon: Visit at the world-renowned sculpture Men at Sea
WECP Annual General Meeting

SATURDAY OCTOBER 8, 2022

- Departure

VENUES AND HOTELS

At Hotel Britannia the delegates will enjoy a luxurious and central accommodation in Esbjerg with all the city's opportunities within walking distance. The hotel has a distinct Scandinavian feel, which is reflected both in the décor and the restaurant.

<https://www.britannia.dk/en>

You will visit the City Hall of Esbjerg, where the council will host the opening reception.



Musikhuset Esbjerg will host the gala dinner. The venue is famous, as the world-renowned architect Jørn Utzon, whose name was established with the Sydney Opera House is the man behind the drawings.

Industry and technical excursions will include a variety of visits to business in the renewable and sustainable industry. Possible venues include Semco Maritime, Siemens Gamesa, Vestas, Polytech, Nature Energy, Copenhagen Infrastructure Partners and Alpha Aqua.





PORT OF ESBJERG

As the leading preassembly and installation port in the world, the industry in Esbjerg has assisted in bringing more than 20 GW of wind offshore installations to the countries around the North Sea.

The industry covers project development, preassembly and installation, operation & maintenance, manpower suppliers, training course facilities, and support industry.

Today, more than 200 companies are doing business in both offshore wind, oil, and gas. That is a testament to the willingness and the determination to transform and adapt to new business.

Port Esbjerg is a responsible port aiming for high environmental, climate and working environment standards. Along with a sustainability strategy, the port has formed an alliance with nine other Nordic ports intended to accelerate the development of sustainable solutions. Most recently, Port Esbjerg became a member of the global 'Getting to Zero Coalition', an alliance launched in 2019 by prominent players in the shipping industry.



PORT ESBJERG



PROPOSED DATES

The City Council of Esbjerg invites the member cities of WECP to visit Denmark in October 2022. The AGM program will kick-off with an evening networking reception on Wednesday 5th October 2022. A program for Thursday and Friday will revolve around the energy transition theme. Friday will be the final day of the official program.

ARRIVING IN ESBJERG

Depending on your starting point, the airports in Copenhagen, Billund or Hamburg in Germany are the closest to Esbjerg. If you arrive from Aberdeen or Stavanger, you can use the Airport of Esbjerg.

From Copenhagen and Hamburg, you can either go by train or drive on your own or hire a taxi to Esbjerg. From Billund it will be easier to drive on your own or hire a taxi.





ABOUT ESBJERG

Esbjerg is a town with thriving culture and commerce, inviting restaurants, interesting galleries and excellent shops. The town also offers a wide range of special attractions, such as the Fisheries and Maritime Museum, Esbjerg Museum, the Museum of Art and the impressive sculpture “Man meets the Sea”.

Esbjerg is located at the heart of a nature reserve, with the unique natural qualities of the Wadden Sea close by - rated as one of the world's five most important areas for fish and bird life and now a UNESCO world heritage site.

Recently, The Wadden Sea Centre has been awarded the Meyvaert Museum Prize for Sustainability. The innovative architecture demonstrates how sustainability requirements can be met using traditional material such as thatch in a contemporary style. The whole complex is beautifully integrated into the marshland, visible through large glass panels.



VISITING A SUSTAINABLE ENERGY-METROPOLIS

The theme will be

“ENERGY TRANSITION BASED ON PUBLIC AND PRIVATE PARTNERSHIPS”

Denmark has gained considerable international attention as one of the first movers in implementing a green energy transition across all sectors and aims to become independent from fossil fuels by 2050. A broad coalition of public and private actors is needed to develop a mix of solutions that are technically, economically, politically and socially viable.

From the national level to local initiatives, climate partnerships will be the way to succeed in reaching the national goal of reducing greenhouse gas emissions by 70 % by 2030. Locally in Esbjerg, new partnerships centers on the aim of becoming a CO2 neutral municipality by 2030, and this goal springs from the Vision 2025, outlined by the city council.

The focus on partnerships as the key to achieving climate goals aligns perfectly with the mission of WECP, where the member cities work toward facilitating international economic partnerships that foster the global energy transition.



SUGGESTED PROGRAM

Aalborg University Esbjerg is planning a research symposium in connection with the Annual General Meeting, and they want to share some of their latest abstracts with the delegates from the member cities. Aalborg University is ranked the fourth best engineering and technology university in the world and the best in Europe according to Massachusetts Institute of Technology (MIT). During the AGM it is possible to set up panels between scholars from our educational institutions and companies, where they meet to discuss relevant themes.

NORTH SEA ENERGY HUB

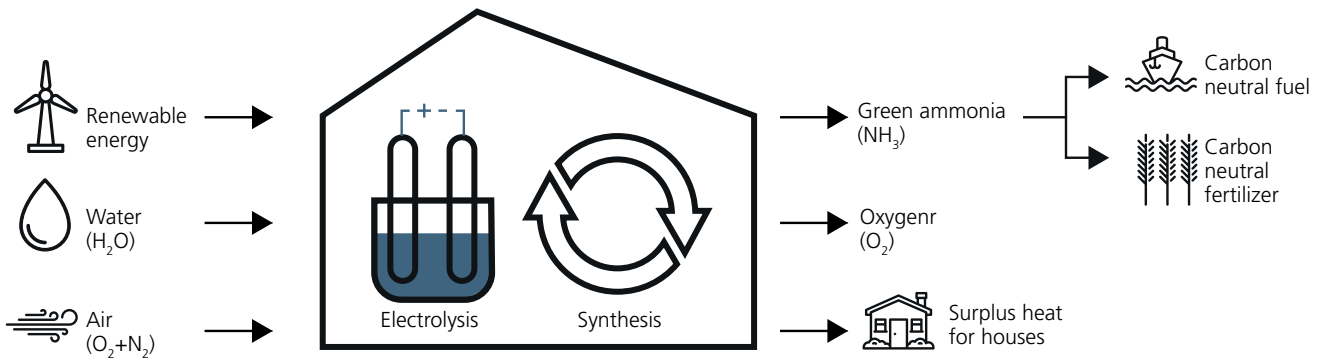
Providing new examples of how partnerships may change the energy sector will be on the agenda, when we look into the plans for a North Sea wind power hub, which Denmark along with other countries are in the process of establishing. The Port of Esbjerg will host us and introduce us to the plans, while we also experience the port site, where the large offshore wind turbines are assembled for shipment.

As you may know, the local business community in Esbjerg includes several global players, and when touring the Port of Esbjerg, there will be an emphasis on visiting some of the larger companies operating within the wind turbine industry. Along the shoreline, there are four 8,5 MW Vestas test turbines, where you can experience the full force of a 164-meter-long rotating blade. From Esbjerg it is also possible to reach Horns Reef to visit an offshore wind farm.

In continuation of this theme, you will get a closer look at the plans for Europe's largest Power-to-X facility, developed by Copenhagen Infrastructure Partners, as the project progresses in Esbjerg. The facility will turn renew-



Power to X



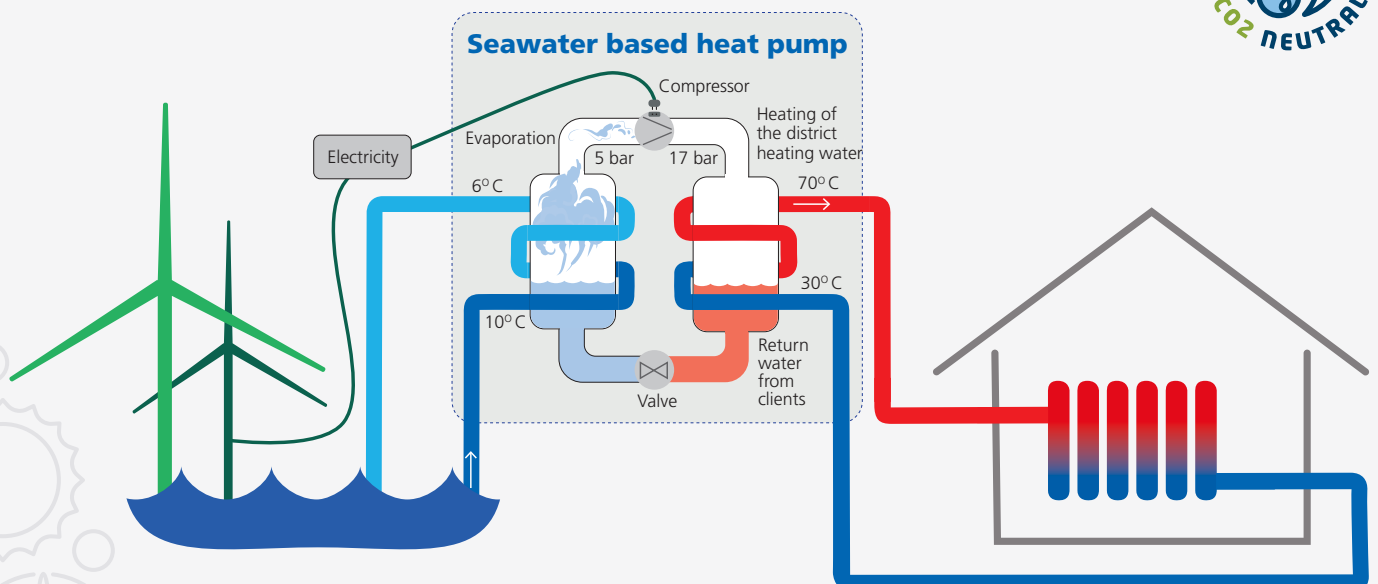
able electricity in to hydrogen and into green fertilizer and ammonia. The ammonia will be used by the agricultural sector as CO₂-free green fertilizer and by the shipping industry as CO₂-free green fuel. The excess heat from the facility will be used to provide heating for around one third of the local households in Esbjerg. This will lead to an interesting showcase of the sector coupling between the public and private sector, with the district heating system of the future as an example. The system will rely on Europe's largest seawater-based heat pump station, a biomass boiler plant and surplus heat.

CARBON CAPTURE AS A NEW STRATEGY

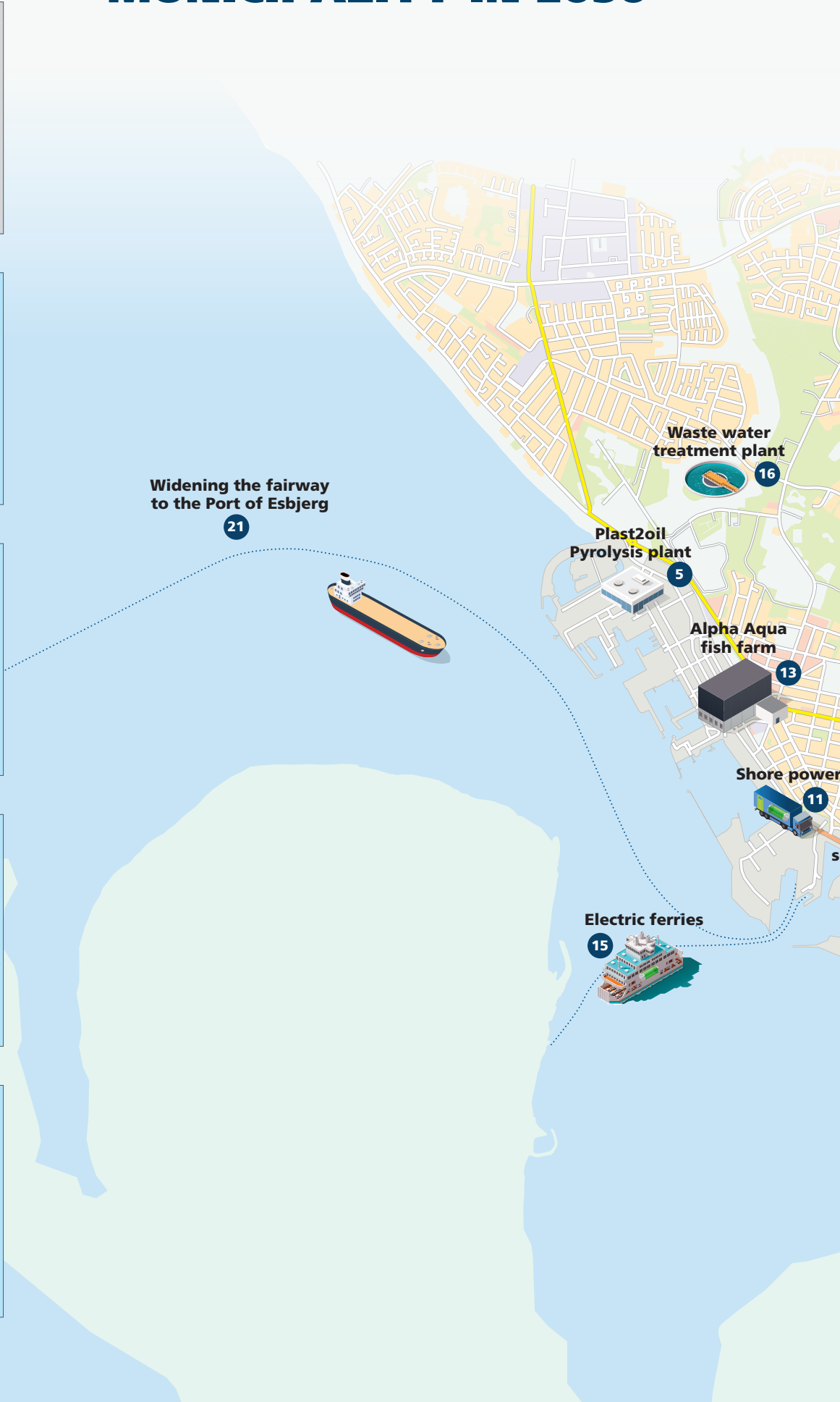
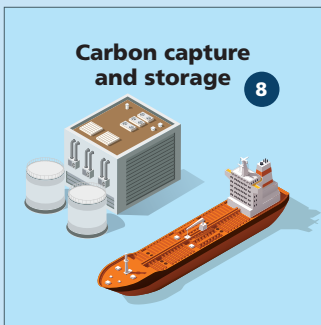
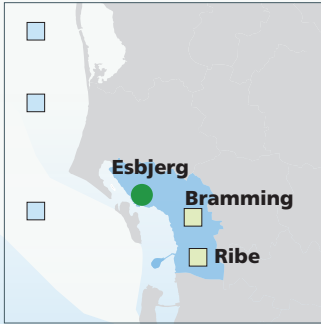
As Esbjerg explores new pathways in the energy sector, it becomes clear that carbon capture may prove a potential new field of interest. The Port of Esbjerg is ready to explore, how carbon could be transported to the North Sea, as the area shifts from oil reservoir to carbon storage. A local waste incineration plant has begun preparations to capture

carbon, and with the proximity to the quayside the project is feasible. In addition, Esbjerg is also home to the largest biomass refinery in Europe, Nature Energy Korskroen, where new technology for green industrial carbon capture is being developed. Potentially, there are also facilities, which will be able to utilize the captured carbon.

Climate partnerships, where the municipality of Esbjerg enters into an agreement with a private company or organization, will help the municipality reach the goal of becoming a CO₂ neutral municipality by 2030. In continuation of this, Esbjerg will implement The C40 Climate Action Planning Framework, which was developed to support cities in developing climate action plans that are aligned with the objectives of the Paris Agreement. Commitment and Collaboration are key elements, and the plan will rely on partnerships. These partnerships take on many different forms, and we will explore the diverse models through examples from Esbjerg.



CO2 NEUTRAL MUNICIPALITY IN 2030





Supercharger for electric cars



Nature Energy Korskro



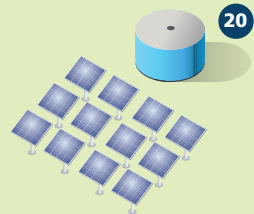
Surplus heat



Bus depot for electric busses from 2022



Gørding district heating relies only on solar panels



Solar panels



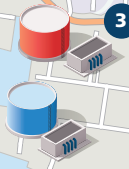
Quantafuel pyrolysis plant



Climate village of Hunderup-Sejstrup



Europe's largest seawater heat pump



Hydrogen tank station



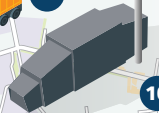
Garbage trucks runs on biogas



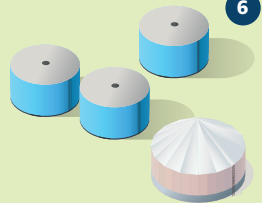
Test wind turbines



Incineration plant/carbon capture



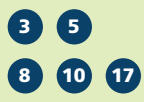
Ribe biogas plant



Power-to-X plant



Green and eco-friendly district heating



The future of agriculture - Klimagaarden at Ribe





CONTINUITY WITH PAST MEETINGS

As a host, the City Council of Esbjerg wants to create an event which is extremely relevant to those, who see themselves as stakeholders in the current global energy transition.

As a follow up to the AGM in Aberdeen, which revolved around the topic of “Energy Transition”, the AGM in Esbjerg will provide members with an opportunity to discuss the potentials of entering into private and public partnerships aimed at CO2 reduction, which will benefit local and global sustainable business. Several of the WECP member cities have entered into these kinds of partnerships, and the goal of the AGM in 2022 will be to share knowledge on this subject and perhaps even develop it further.

With regards to the port related exchange of knowledge, Port Esbjerg is executing their strategy for a more sustainable port. They have already experienced the first effects of the strategy, and Port Esbjerg will share these experiences with the other WECP members.

Additionally, the symposium at Aalborg University Esbjerg will supplement with knowledge sharing on the latest development in renewable research and development.





EXPECTED TAKE-AWAYS AND RESULTS

Participants in the AGM 2022 will leave Esbjerg with insights into how the city prepares to play a major part in the national energy transition of the future through partnerships with private and public organizations. New and exciting ventures are on the way, and we hope to inspire our fellow member cities as well as share knowledge on what steps each member is taking in being part of the energy transition. Hopefully, a basis for new contacts will be made with our local companies connected to the energy sector.

NETWORKING AND INTERACTIONS WITH BUSINESS COMMUNITY

During the AGM, delegates can meet with the local and international business community to do business and exchange knowledge and expertise. We want to encourage participating cities to invite representatives, and Business Esbjerg will set up meeting with local business. With regards to the research symposium, member cities could also invite representatives from local educational institutions.



United Nations
Educational, Scientific and
Cultural Organization



World
Heritage
Convention



CULTURAL OUTINGS

Only 30 km from Esbjerg, you find Ribe. Ribe is the oldest town in Denmark and one of the oldest in the Nordic countries. It is a lovely spot to visit and visitors particularly enjoy walking the cobblestone streets with the many old half-timbered houses from the 16th-century with beautifully painted doors. In Ribe, you also find the oldest cathedral in Denmark, the Ribe Cathedral.

Ribes history dates back to the Viking Age and in the 8th century the town started out as a marketplace by the water - an ideal starting point for seaborne viking raids. Putting together a recreational visit, where the delegates experience some of the viking atmosphere will also be possible.



Copenhagen, the capital of Denmark. Because of the fascinating architecture, many parks, gourmet restaurants and other attractions Copenhagen is a very popular place to be. Copenhagen has been nominated the best city by several organizations for livability, sustainability and other factors.





SAFETY AND SECURITY

Denmark is ranked as one of the safest countries in the world according to the Global Peace Index, which places Denmark as the fifth safest country in the world. Through a cooperation with the South Jutland Police, we will ensure the safety of the delegates.







Esbjerg Municipality 2021

