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OFFER

Fact Finding Mission, 27 March – 29 March, 2023, New York City

SWISS IN THE CITY – SMART IN THE CITY

Swiss smart solutions for New York City's green economy



1. INTRODUCTION

With a population of over 8.5 million, New York City (NYC) is the largest city in the United States. If NYC was a country, its economy would be the 10th largest in the world, producing a gross metropolitan product of \$1.66 trillion. 54 Fortune 500 companies, over 10,000 startups and more than 1,000 incubators and accelerators are headquartered in the City which is considered the world's second largest tech hub. In addition, NYC's workforce is highly diversified – more than 47% of those working in NYC are immigrants – and highly educated. Last, NYC keeps growing as global companies invest in the City and people keep moving to NYC. The City's population is expected to surpass 9 million by 2050.

A rapidly growing population comes with an increase in energy consumption and carbon which is why NYC has enacted one of the world's most stringent climate laws. The NYC Climate Mobilization Act (CMA), otherwise known as NYC's Green New Deal, was passed by the **New York City** Council in 2019 to put NYC on the path to reducing building carbon emissions by 40% by 2030 and by 80% by 2050. The Community Leadership and Climate Protection Act (CLCP) was signed into law in 2019 as well to address climate change and achieve net zero emissions in **New York State**. In addition, the Inflation Reduction Act (IRA) from 2022 funds clean energy solutions with \$369 billion on the **US federal level** and provides a significant boost to all programs targeted at achieving the CLCPA's goals.

Funding of clean energy solutions in NYC, New York State (NYS) and the federal level is aligned and NYC's ranks first as destination for global FDI. This means that Swiss companies which are known for innovative and sustainable solutions can benefit substantially from the current momentum around clean energy solutions in NYC and consider the City as an export destination. The Swiss Business Hub USA invites Swiss companies with solutions in innovative and sustainable urban infrastructure to join us for three focus smart city days in NYC.

2. GOALS

The fact finding missions breaks down 'smart city' into three clusters: smart grids, smart buildings, and smart mobility. Smart grids are the foundation of implementing sustainable, reliable and clean smart city solutions. Smart and sustainable buildings are crucial to reduce New York's carbon footprint. Similarly, smart mobility solutions are key to decarbonizing New York's transportation system. Goal is to:

- 2.1. Provide Swiss companies with an understanding of New York's smart city ecosystem in the three clusters (smart grids, smart buildings, smart mobility),
- 2.2. Connect Swiss companies with partners, peers, pilot programs and potential customers.

SMART GRID OPPORTUNITY



Smart grid technologies promote the modernization of the electric grid, including the use of renewable and distributed energy resources, fewer greenhouse gas emissions, and lower operating costs. New York City is one of the most energy-intensive urban environments in the world. The peak summer load in NYC and Westchester County approaches 14 GW of demand — almost a quarter of the peak demand in all of

California. In addition, while nearly 60 percent of the state's electricity is consumed in the New York City area, only 40 percent of it is generated there. New York's Energy Authority, NYSERDA, has provided funding to three smart grid opportunities: distributed energy resource integration, high performing grid, and future grid. The NY State Smart Grid Consortium is a public-private partnership which represents all major contributors across the energy value chain from utilities, markets, operators, industry, academia, government and end-users and releases information on current projects and funding opportunities [here](#) and [here](#).

SMART BUILDING OPPORTUNITY



NYC's buildings account for 70% of the City's GHG emissions and half of those emissions are produced by 5% of the largest structures. Retrofitting those buildings is essential to meet NYC's ambitious climate goals. The Empire State Building's retrofit, cited as NYC's "original" green retrofit in 2013, cost around \$31M and included adding a coating to each of the building's 6,500+ windows and upgrading the elevator system, cutting energy usage by 40% and saving \$4M every year. NYC's [Local Law 97](#), which is part of the CMA, sets emission caps for buildings above 25,000 square feet (approx. 50,000 buildings), imposing hefty financial fines on building owners if the caps are exceeded. Building off the success of the Empire State Building's retrofit and trying to create a blueprint for building owners who need to comply with Local Law 97 by 2024, NYSERDA implemented the Empire Building Challenge. Goal of the annual challenge is to create a blueprint for the decarbonization of high rise buildings which can then be shared with building owners across the city and state. NYSERDA invests \$50M in the challenge which is supplemented by a \$250M private sector investment. This year's challenge focuses on thermostorage, heat pumps and indoor air ventilation. In addition, a partnership of City agencies are coordinating with the proptech sector, including JLL Technologies, to serve New York City residents and communities. The Proptech Piloting Program seeks to find innovative proptech startups that are interested in working with the city agencies) to improve quality of life for tenants and address building sustainability. The Program is taking place for the second time in 2022 and is open to Swiss innovative proptech solutions.

SMART MOBILITY OPPORTUNITY



NY's transportation sector accounts for 40% of GHG emissions in the State and includes energy consumption of vehicles whose primary purpose is transporting people or goods, including personal vehicles, subways, rail, aircraft, and ships. For the purposes of this fact finding mission, smart mobility solutions use technology to achieve cleaner and more efficient mobility options. In September 2022, Mayor Adams announced that NYC's 2025-goal to transition 4,000 vehicles in the city fleet to electric vehicles has been reached three years ahead of schedule – a number expected to increase further. Two city-wide initiatives target the rollout of the charging network, [Electrifying New York](#) for fast chargers and [PlugNYC](#) for affordable and convenient charging. West Harlem, New York, is the site of a smart streetscapes research project to explore improvements related to road safety and traffic efficiency. Similarly, NYU researches and advises the City's Department of Transportation (DoT) on mobility-related public policy issues while NYU's Tandon School of Engineering and C2Smart adopt a data-driven approach together with the private sector to solve traffic safety, fleet management and micromobility and clean transportation solutions.

3. Target Company Profile

- Swiss SME or startup
- No US subsidiary, but ready to export to the market
- English website
- Interest in understanding the opportunities in the NY smart grid, green building, and smart mobility market
- Ready to meet project owners, local companies and decision-makers from utilities and the NY power and energy authorities
- **Smart Grids:** solutions in battery storage, thermostorage, decentralized heating networks, microgrids
- **Smart Buildings:** solutions for heat pumps, indoor air ventilation, thermostorage, water management, solar panels, green roofs, innovative proptech solutions
- **Smart Mobility:** solutions in micromobility, fleet management, EV charging infrastructure.

4. AGENDA

Monday, March 27: Smart City NYC and Smart Grids

9 AM	Overview of NYC smart city projects: NYCEDC	Swiss Consulate
11 AM	Smart Utilities: NYPA , ConEd	Swiss Consulate
1 PM	Gondola to Roosevelt Island and Lunch	Cornell Tech/ Roosevelt Island
3 PM	Battery Storage	NY-BEST
5 PM	Happy Hour and Dinner	Lavaux with Swiss Society

Tuesday, March 28: Smart Buildings

9 AM	Intro to smart buildings NYC and Local Law 97	NYSERDA , Building Energy Exchange
11 AM	Roundtable Discussion with Developers and lunch	NYSERDA , Building Energy Exchange
1 PM	Lunch, project spotlight: Empire State Building	Urban Green Council
3 PM	Focus on proptech	JLL
7 PM	Dinner	Meatpacking District (TAO)

Wednesday, March 29: Smart Mobility

9 AM	Overview of NYC smart mobility initiatives/ Urban Futures Lab	NYU Center for Urban Mobility/ NYU Brooklyn
11 AM	Company Intros	C2Smart/ NYU Brooklyn
1 PM	Smart City Incubator and Lunch	Urban Future Lab or Urban-X
3 PM	Mobility companies in NYC, Micromobility	Electric Avenue
5 PM	Apero	Rooftop Midtown (Monarch)
7 PM	Dinner	Swiss Residence (Midtown East)

5. COST OF PARTICIPATION

- | | |
|---|--------------------|
| • Switzerland Global Enterprise, Gold member | CHF 2'768.- |
| • Switzerland Global Enterprise, Silver member | CHF 3'093.- |
| • Non-member | CHF 3'256.- |

Prices are quoted in Swiss Francs excluding VAT

* If not already, become a member of Switzerland Global Enterprise and take advantage of the discounts listed above. Please tick the box in the order form and complete the annexed membership registration form. For more information on S-GE membership see: www.s-ge.com/en/membership.

The above quoted cost includes:

- Hotel accommodation from arrival to departure dates
- Local transportation to events and visiting locations for entire delegation
- Up to 2 individual meetings outside of the official program
- Participation at events mentioned in program
- Breakfast, lunches and dinners (except during free time)

and excludes:

- Intercontinental flight arriving and departing from USA
- Transportation to individual meetings
- Items listed as optional and any other items not specifically mentioned as included

6. CONTACTS DETAILS REQUIRED

Please provide the following contact details as they will appear on the participant list:

Company/Institution:

Address:

First and family name:

Position:

E-mail address:

Mobile number:

If you do not wish to appear on the participant list, click this box

Invoicing address, if different from the above

7. TERMS AND CONDITIONS

Registration deadline:

1 March 2023. Registration will be accepted on a "first come -first serve basis". The registration will be confirmed by submission of down-payment invoice.

Payment terms:

100% down payment latest by 1 March 2023.

Payment is due with written confirmation of this offer. No reimbursement will be made in case of cancellation (please, refer to individual travel cancellation insurance).

The General Terms and Conditions of Switzerland Global Enterprise apply: www.s-ge.com/terms.

8. ORDER CONFIRMATION

By signing this present Offer/Order Confirmation, the undersigned party, confirms acceptance of the offer and conditions as outlined above.

Please indicate your current membership status or request to become a member of Switzerland Global Enterprise by ticking one box below:

- Existing Gold Member
- New Gold Membership Request
- Existing Silver Member
- New Silver Membership Request
- Non-member

Should you wish to register as a new member of Switzerland Global Enterprise, please complete the attached form – see below. In such case you accept the membership statutes listed on www.s-ge.com/statutes. Advantages and respective membership fees are indicated on <https://www.s-ge.com/en/membership>. Entitlement to the benefits begins upon acceptance by Switzerland Global Enterprise membership.

Place / Date:

Authorized signatory (signatories):

Please return a duly signed and scanned copy of the Offer/Order Confirmation with attachments (business credentials and photo) by e-mail to: abosshard@s-ge.com, direct phone: **+41 44 365 54 13**.

Form only to fill out in case of request to become S-GE member

Declaration Form

for Switzerland Global Enterprise
(S-GE) Membership

1. COMPANY AND ADDRESS

Company: _____

Street Number: _____

PO Box: _____

Postal Code / City: _____

Contact Person: _____

Position: _____

Telephone: _____

E-mail: _____

www: _____

Twitter: @ _____

LinkedIn Corporate Profile: _____

2. REGISTRATION IN THE COMMERCIAL REGISTER

Place and date: _____

Foundation year: _____

3. DOES YOUR COMPANY BELONG TO A CORPORATE GROUP?

Yes No

If yes, to which group? _____

I have read and accepted the bylaws at s-ge.com/statutes.

You will receive a confirmation from us upon receipt of this declaration.

Place / Date

4. KEY FIGURES

No. of employees: _____

Total annual turnover: _____

Export Percentage in %: _____

5. MEMBERSHIP FEE ACCORDING TO THE FOLLOWING CRITERIA (NOT INCLUDING VAT)

Silver-Membership (see benefits)

Microenterprises (max. 10 employees): CHF 350.-

Gold-Membership (see benefits)

up to 5 million total turnover: CHF 700.-

up to 50 million total turnover: CHF 1,100.-

up to 150 million total turnover: CHF 1,500.-

up to 250 million total turnover: CHF 1,800.-

over 250 million total turnover: to be agreed

Holdings membership: at least CHF 2,000.-

Public corporations: to be agreed

Associations: to be agreed

S-GE suppliers: to be agreed

Please send to: Switzerland Global Enterprise, Member Management, Stampfenbachstrasse 85, CH-8006 Zurich, as a PDF to member@s-ge.com, or complete online at www.s-ge.com/joinusnow.

Membership data is stored by S-GE, its contact points and the network partners that cooperate with S-GE in Switzerland and abroad and used for internal market research purposes. General and publicly available member data may be forwarded to third parties and are published on the internet and are accessible from third parties. Members declare their consent to S-GE, its contact points and the network partners that cooperate with S-GE in Switzerland and abroad informing them by letter, telephone and e-mail about their own and general economic activities during and after termination of membership. In so doing, S-GE observes the legal regulations laid down in the Data Protection Act and the regulations on unfair competition as stipulated by federal law.

9. PARTNER ORGANIZATIONS

<p>New York City Economic Development Corporation (NYCEDC)</p>	<p>NYC EDC is New York’s economic development agency promoting NYC’s growth and investing in industries, jobs and communities to makes the City more sustainable, resilient and equitable. The nonprofit helps companies interested in doing business in NYC with economic incentives, leasing opportunities and events. NYC EDC’s work includes several smart city projects and climate technology solutions, such as the Urban Future Lab, NYC’s climate tech innovation hub (see below).</p>
<p>Building Energy Exchange (BE-Ex)</p>	<p>BE-Ex is an energy efficiency resource center and a hub which focuses on building decarbonization. The organization connects real estate developers and designers to energy efficient technologies and solution through education, research, events and exhibits. The High Rise, Low Carbon Series highlights solutions around the Empire Building Challenge. BE-Ex has close ties with New York’s energy authority, NYSERDA, and has hosted European delegations from Belgium, Ireland and Sweden.</p>
<p>New York State Energy & Research Authority (NYSERDA)</p>	<p>NYSERDA is a public benefit corporation which offers information and analysis, programs, technical expertise, and funding to help New Yorkers increase energy efficiency, save money, use renewable energy, and reduce their reliance on fossil fuels. For instance, NYSERDA provides \$50M funds to the Empire Building Challenge retrofitting tall buildings to low carbon standards.</p>
<p>New York University (NYU)</p>	<p>The Rudin Center for Transportation at NYU Wagner in Greenwich Village researches public policy issues in urban mobility, infrastructure and economic development and convenes forums and issues reports on these topics. The Center is working closely with transportation innovators in NYC such as through its Emerging Leaders in Transportation Program.</p>
<p>C2Smart</p>	<p>C2Smart is the transportation center at NYU Tandon School of Engineering, located in Brooklyn and uses cities as “living laboratories” to study challenging transportation problems and find data-driven solutions from the advances in communication and smart technologies. The network operates with a wide network of agency, industry, nonprofit, and academic partners in NYC and the US on issues such as fleet management and traffic safety.</p>
<p>Urban Future Lab (UFL)</p>	<p>UFL is part of NYU’s Tandon School of Engineering and is NYC’s climate tech hub focusing on solutions in clean energy, sustainable urban infrastructure and decarbonization. ACRE is UFL’s incubator for startups in the climate tech space and the hub works with numerous international companies, having set up an incubator for UK companies looking to enter the US clean tech market.</p>
<p>Urban Tech Hub at Cornell Tech</p>	<p>The Urban Tech Hub is a new venture in New York City that generates applied research and fosters an expanding tech</p>

ecosystem through sponsoring research, organizing roundtables and [industry partnerships](#). The Urban Tech Hub also [partners](#) with the NYC smart city ecosystem around issues related to urban transport (MTA) or with NYCEDC.

New York Battery and Energy Storage Technology Consortium ([NY-BEST](#))

NY-BEST is New York's Battery and Energy Storage Technology Consortium and aims to grow the energy storage cluster in New York. The organization offers a [supply chain database](#) to its members which includes battery storage companies and works closely with the state to support companies intending to set up operations in New York State.

[Urban Green Council](#)

The Urban Green Council is the NYC-based organization of the [World Green Building Council](#), non-profit that aims to reduce emissions and water usage in buildings. For that purpose the Urban Green Council organizes event and programs, incl. [webinars](#) on understanding the local building code and with international organizations such as the Berlin Chamber of Commerce and the City of Toronto.

Swiss Society of New York ([Swiss Society](#))

The Swiss Society supports the Swiss community in the New York area through organizing events and programs promoting Swiss-American cultural and social understanding. Its around 1,500 members predominantly reside in the New York area and include expats of Swiss companies in New York, families and individuals.

10. COMPANIES

Con Edison ([ConEd](#))

ConEd is one of the largest energy companies in the US, providing electric and gas service to the New York Metropolitan Areas and steam service in the borough of Manhattan. ConEd is currently implementing [several initiatives](#) around clean energy to build a 100% clean energy grid by 2040. The company has adopted a "transmission first" approach which includes a \$1B investment in the development of renewable energy transmission.

New York Power Authority ([NYPA](#))

The New York Power Authority (NYPA) is a public benefit corporation and the largest public power utility in the US. NYPA operates 16 electricity generating facilities and over 1,400 circuit miles of transmission lines. Approximately 70% of the energy NYPA produces is renewable hydropower. As part of [NYPA's Vision 2030](#) strategy, the utility intends to become NY's leading transmission developer, investing \$200-400M to grow the transmission asset base fivefold by 2030. The nearest term project focuses on relieving congestion in Central Eastern New York.

Funform

Funform is a startup working on building materials, systems, and assembly methods for new and retrofit construction that improve material, labor, and energy efficiency. The startup conducts R&D for alternative processes and products to deliver rapid-deployment of deep energy retrofits of multi-family buildings. Awards include [Department of Energy's 2021 ERobot Prize](#) for building retrofits and the startup has received support from NYSERDA's [RetrofitNY](#) program.

Electric Avenue

Electric Avenue is a public affairs and mobility strategy firm which works with companies, non-profits, and city agencies to move car trips to electric two- and three-wheeled options. The team has a wide network in NYC's city government, start-ups, non-profit organizations, consulting firms, and international development institutions, which supports (international companies) with implementing projects and scaling micromobility solutions.

Volta

Volta is an EV charging and media company, headquartered in San Francisco with employees across the US, incl. NYC. The company's network of charging stations feature large-format digital advertising screens often located near the entrances of popular commercial locations. In July 2022, Volta announced its [partnership with the City of Hoboken](#), NJ, across the Hudson from Manhattan to install 25 public EV charging stalls. This is in line with Hoboken's goal to grant all residents access to a public charging station within a 5 minutes walking distance.

Urban-X

Urban-X is a venture accelerator focusing on startups in urban innovation, specifically in Transportation & Mobility, Built Environment & Real Estate, Food, Waste & Water, and Energy & Grid. The program is suitable for technologies with an aspect of scalable climate mitigation and adaptation. The Swiss sewer inspection startup [Pallon](#) was part of the accelerator.