

### LETTER FROM OUR BOARD CHAIR

#### **DEAR STUDENT ENERGY COMMUNITY,**

2020 may just be the year that changes it all.

The global health crisis we collectively faced served as a stark reminder of the fragile balance between humans and nature. It also made the imperative for sustainability clearer than ever. The question is if we will learn from this crisis and take the actions necessary to build a future that is just, equitable, and sustainable.

Governments pumped over \$12 trillion of stimulus into economies to keep them afloat amid record lockdowns, but less than 50% of that money went towards the industries of the future, like clean energy. This is why it is more important than ever to have youth at the table, helping to build a future that will serve them. 2020 reminded us of the importance of our work and the power that young people have to be drivers of change. We saw renewed backing for our work from the community we serve and the 90+ partners who support us, so much so that our team grew from 9 to 25 staff members!

Given that Student Energy's global community often connects digitally, we were well-positioned to continue to serve young people when we experienced disruptions to our normal ways of working, and we achieved some notable milestones:

- Even as universities shifted to teaching online, we were able to grow our network to 47 chapters in 22 countries, who engaged over 16,000 youth.
- We launched the first Leaders Fellowship cohort in January and ended the year with 47 global teams completing their 10-month online program.
- The Regional Coordinators of our Global Youth Outlook are working hard to reach 50,000 young people for input in the research process in the lead-up to the UN Climate Change Conference (COP26).
- Our Energy System Map and video users skyrocketed this year, reaching a total of 10 million+ users, with 2.5 million of those just in 2020, as more students and educators turned to digital energy learning resources. This year, we launched the new Energy System Map at www.studentenergy.org, featuring the new "Influences" layer, to help young people understand how to change the energy system.

• We provided \$120,000 in funding directly to young people to support them with honorariums and awards to help them take action on energy and are working on an even more ambitious direct-to-youth funding strategy for 2021.

We remain more dedicated than ever to supporting young leaders in gaining the skills and space they need to act, and in pioneering new models of intergenerational collaboration that will be fundamental to recovery from COVID-19. Student Energy will be an active contributor to building back better and you can count on us to bring the energy, ideas, and passion of our community to the table as we work together to recover and thrive in 2021.

KALI TAYLOR
BOARD CHAIR AND CO-FOUNDER



# REFLECTING ON 2020

#### **ADAPTING AND GROWING**

At the end of 2019, we set our focus on **building bridges** in 2020. We wanted to build bridges
between young people and those who aren't
hearing them, and elevate the voices of young people
who haven't had the opportunity to meaningfully
participate in decision-making on energy. Little did
we know everything 2020 would have in store for us,
from switching to an entirely remote work environment,
to the cancellation of all in-person engagement events,
to operating in an entirely changed economic and social
landscape due to the disruptions of COVID-19.

We adapted our plans and programs in a big way this year, and remained focused on our initial goal. We strengthened our capacity to deliver impactful, globally accessible virtual programs such as the Leaders Fellowship; fostered a global community through Chapters, the Global Youth Energy Outlook, and by launching an alumni network; and formed new partnerships that will allow us to grow our program offerings at the pace needed to meet increasing demand from youth.

#### **WHAT WE LEARNED**

Beginning in the 2019 Annual Report, we have dedicated a section to documenting some of the most important things we've learned from listening to our global youth network, so that we can integrate these learnings into our work in a meaningful way.

#### **ANTI-RACISM AND ENERGY**

The grassroots protests led by Black Lives Matter and other organizations and individuals in the United States and around the world against police brutality and systemic anti-Black racism in the early summer of 2020 shook up many sectors, leading organizations to look inwards.

At Student Energy, our collective learning included addressing the often racist and exclusionary history of the mainstream environmental movement in North America through our internal learning and external communications, examining how systemic racism and state violence intersect with the energy sector, and looking at how we can incorporate anti-racist principles and frameworks to our work.

See end of this report for our official statement published on June 1, 'Student Energy's Commitment to Addressing Racial Injustice in the Energy Transition', which includes description of actions we are taking as an organization.

# REFLECTING ON 20 (CONTINUED)

#### **TURNING GUIDING PRINCIPLES INTO ACTION**

In 2020, we introduced three sets of guiding principles that improve transparency in our work and allow us to advocate for better youth engagement from all organizations that we work with: Our Partnership Principles, Youth Engagement Principles, and Internal Principles for board, staff, and youth network.

Recognizing our global network's interest in helping to improve and co-create Student Energy's programs, we further built on these principles by turning them into actionable decision-making tools that we can use to improve our internal operations, new program development, and partnerships processes:

#### **Partnerships Training and Evaluation Criteria**

To build on Partnership Principles, we are currently developing a training program for new partners so that we can introduce partners to Student Energy's work and values, and work collaboratively to create an equitable and meaningful experience for young people that are involved in that partnership. We are also developing a set of Partnerships Evaluation Criteria to support our decision-making as an organization as we grow and have the opportunity to work with organizations in many sectors.

#### **Iterative Feedback and Evaluation Processes**

As we developed and launched new programs throughout 2020, we built on our Youth Engagement Principles to create avenues for staff and youth in our network to provide input into our work. An example of avenues include:

- Monthly program-specific Evaluation Days with all staff
- Check-ins and exit interviews for program participants
- Looking at participation and engagement analytics on Zoom
- A mix of face to face (virtual) consultation and ideation, and anonymous feedback forms for participants to have multiple ways to provide feedback

### MEETING GROWING DEMAND FOR GLOBALLY ACCESSIBLE ENERGY EDUCATION AND TRAINING

The COVID-19 crisis exposed the systemic vulnerabilities in global economies and in social safety nets, as those hit hardest by the disruptions brought by COVID-19 are people experiencing poverty and marginalization, including young people. With education, internships, and other opportunities cancelled or disrupted, we are seeing an increased demand for financially accessible, virtual, flexible educational and job training programs. Although we have always prioritized virtual learning due to the global nature of our work, 2020 has made us realize that this will become a growing priority over the coming years.

Some of the important feedback we've received around making these programs accessible and more useful to young people from all backgrounds includes making them cost-free whenever possible, which has long been a baseline for Student Energy programs and will continue to be, making learning materials and connection opportunities mobile-friendly and downloadable, and providing mechanisms to earn completion certificates and other ways to tangibly demonstrate accomplishments in the future.

Another crucial next step for Student Energy is in building our capacity to create multilingual community spaces and translations of our educational content, as part of our internationalization plan for 2021 and beyond.

## FOCUS FOR 2021: ACCELERATING GLOBAL ACTION

core programs and better understanding the needs of our global youth network, our focus for 2021 will be on accelerating global action. What does this mean?

- 1. Advocating for and growing the youth movement for an urgent transition to a sustainable and equitable energy system, in this critical decade for climate action.
- 2. Internationalizing our own operations and project

#### Here are some of our concrete activities in 2021 to reach these objectives:

- 1. Piloting an ambitious Direct-to-Youth Funding Strategy to get more money into the hands of young people to implement tangible, impactful energy solutions in their communities.
- 2. Diversifying our Board of Directors to invite young people from around the world to participate in governing Student Energy's future direction. This will be the first time Student Energy has been table to take on international alumni as official Board members.
- 3. Launching the Global Youth Energy Outlook report at COP 26, the first youth-led report in the world that outlines global youth perspectives on the energy transition, with regional roadmaps to 2030 describing how youth want to change the energy system.
- 4. Expanding Student Energy's program offerings to meet the growing demand for energy education and career skills training, including launching a brand new program called the Energy Transition Training Program geared specifically toward preparing youth for their first career in energy and climate.

- After spending the past few years strengthening our 5. Increasing capacity for our successful existing programs, including a second cohort of the Leaders Fellowship, a fourth cohort of Greenpreneurs, and growing the Chapters program.
  - 6. Introducing the Indigenous Youth Mentorship **Program** in summer of 2021, an innovative new program supporting Indigenous young people across Canada to implement energy solutions in their communities.
  - 7. Developing Student Energy's Policy Portfolio and communications strategy, which will act as one of our primary outlets to share Student Energy's core values and calls to action for a sustainable and equitable energy transition and climate action for a broad global audience.





## OUR IMPACT IN 2020: CHAPTERS

In 2020, the Chapters program grew from 41 to 47 chapters worldwide in 22 countries around the world, paving the way for youth to join and take action on energy and climate change. This year, we welcomed chapters from the African Leadership University (ALU) in Kigali (Rwanda), alongside new Chapters at Simon Fraser University (Canada), Gonzaga University (United States), Columbia University (United States), Mehran University of Engineering and Technology (Pakistan), and the Federal University of Technology Owerri (Nigeria).

**CHAPTERS HIGHLIGHTS** 

Student Energy Chapters take on a wide array of projects in their communities, and in 2020, many Chapters creatively shifted their work and delivered high quality virtual learning and community building experiences. These are just a sample of the projects that took place in 2020:

Tecnologico de Monterrey (Mexico): The Student Energy Regional Meeting 3.0 was held from October 26-30, and was hosted virtually. This switch made the event accessible to an international audience for the very first time. Students connected to learn from speakers from all over the world working in the energy sector. With 9 keynotes, a coffee talk, multiple panels, workshops and debates, the meeting engaged nearly 1000 youth! Topics included conversations on Biomass, Green Hydrogen, Youth and the UN, and youth debates in English and Spanish.

Chapter Collaboration: Convened by NED University of Engineering (Pakistan), 14 Chapters collaborated to host an International Event for a Sustainable Energy Future, a 2 day virtual event hosting 12 speakers from represented regions. This virtual event reached over 5,000 views.

University of Manitoba (Canada): This Chapter

hosted an AutoCAD workshop teaching students how to use the software, as preparation to redo the mechanical drawings for their Experimental Lakes Area lake monitoring project and support with their retrofit project.

University of Groningen (Netherlands): The University of Groningen chapter hosted several pub quizzes on Discord in 2020 to bring their community together and build friendships, to supplement their collaboration on energy-related events.

Visit <u>studentenergy.org/chapters</u> for a full overview of Chapters projects and events.





## GLOBAL STUDENT ENERGY CHAPTERS IN 2020

#### **AFRICA**

UNIVERSITY OF KARA (TOGO)

PAN AFRICAN UNIVERSITY INSTITUTE OF WATER AND ENERG

SCIENCES - PAUWES (ALGERIA)

FEDERAL UNIVERSITY OF TECHNOLOGY OWERRI (NIGERIA)

AFRICAN LEADERSHIP UNIVERSITY (MAURITIUS)

UNIVERSITY OF PORT HARCOURT - UNIPORT (NIGERIA

#### ASIA

PADJADJARAN UNIVERSITY (INDONESIA)

INTERDISCIPLINARY CENTER HERZLIYA – ICD HERZLIY/ (ISRAEL)

MIDDLE EAST TECHNICAL UNIVERSITY – METU (TURKEY)
IZMIR UNIVERSITY OF ECONOMICS TURKEY – IUE (TURKEY)

NED UNIVERSITY OF ENGINEERING AND TECHNOLOGY (PAKISTAN)

TAMIL NADU NATIONAL LAW UNIVERSITY (INDIA)

AMIRKABIR UNIVERSITY OF TECHNOLOGY – AUT (IRAN)

AN-NAJAH NATIONAL UNIVERSITY (PALESTINE)

MEHRAN UNIVERSITY OF ENGINEERING AND TECHNOLOGY (PAKISTAN)

US PAKISTAN CENTER FOR ADVANCED STUDIES IN ENERGY – USPCAS-E (PAKISTAN)

#### **EUROPE**

UNIVERSITY OF GRONINGEN (NETHERLANDS)
TECHNICAL UNIVERSITY OF DENMARK (DENMARK,
UNIVERSITY OF BIRMINGHAM (ENGLAND)

#### NORTH AMERICA

UNIVERSITY OF BRITISH COLUMBIA – UBC (CANADA)
UNIVERSITY OF CALIFORNIA – DAVIS – UC DAVIS (USA)
UNIVERSITY OF MANITOBA (CANADA)
SIMON FRASER UNIVERSITY (CANADA)
UNIVERSITY OF ALBERTA (CANADA)

MCGILL UNIVERSITY (CANADA)
UNIVERSITY OF TORONTO (CANADA)
CARLETON UNIVERSITY (CANADA)

WESTERN UNIVERSITY (CANADA)

NORTHERN ALBERTA INSTITUTE OF TECHNOLOGY – NAIT (CANADA)

TECNÓLOGICO DE MONTERREY UNIVERSITY – TEC (MEXICO)

UNIVERSIDAD AUTÓNOMA DE YUCATÁN – UADY (MEXICO)

MOUNT ROYAL UNIVERSITY - MRU (CANADA)

GONZAGA UNIVERSITY (USA)

UNIVERSITY DE GUADALAJARA – UDEG (MEXICO)

UNIVERSIDAD NACIONAL AUTÓNOMA DE MÉXICO – UNAM (MEXICO)

COLUMBIA UNIVERSITY (USA)

#### **OCEANIA**

MURDOCH LINIVERSITY (ALISTRALIA

#### **SOUTH AMERICA**

FACULDADE INDEPENDENTE DO NORDESTE – FAINOR

FEDERAL UNIVERSITY FOR LATIN AMERICAN INTEGRATION - UNILA (BRAZIL)

UNIVERSIDAD CATÓLICA BOLIVIANA – SAN PABLO (BOLIVIA UNIVERSITY OF THE WEST INDIES- UWI (TRINIDAD AND TORAGO)

UNIVERSIDAD SAN FRANCISCO XAVIER DE CHUQUISACA USEX (BOLIVIA)

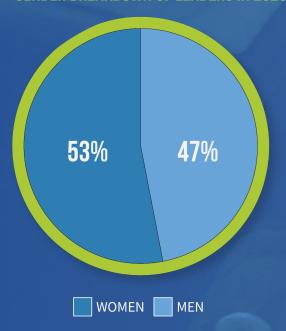
UNIVERSIDAD DE INGENIERÍA Y TECNOLOGÍA – UTEC (PERU

## OUR IMPACT IN 2020: LEADERS FELLOWSHIP

We developed the Leaders Fellowship as a way to streamline energy education and capacity-building for our Chapters, and the program has quickly grown into one of the most in-demand program offerings at Student Energy. The first cohort of 50 global youth teams successfully completed their 10-month program in October 2020, launching 47 youth-led energy solutions.

We received nearly 600 applications from 75 countries for the second cohort and have now recruited a total of 90 teams to participate in the second year of the Leaders Fellowship, beginning in January 2021. We have brought on a second full time Leaders Fellowship Coordinator to provide individual coaching and regular support to each team, and have improved our content and structure for 2021 using the results from our evaluation framework, a comprehensive series of exit interviews with the first cohort, and participation and engagement data collected from webinars and other virtual events.

#### **GENDER BREAKDOWN OF LEADERS IN 2020:**



#### **LEADERS FELLOWSHIP SPOTLIGHT**

#### Somos Energía (Bolivia)

Paola Flores Carvajal, Areli Diaz Cabrera

The mission of Somos Energía is to provide children and adolescents from rural areas of Chuquisaca, Bolivia the opportunity to be part of the action against environmental degradation through educational workshops about Climate Change and Energy. Encouraging children and adolescents to be the new generation of energy leaders who understand their value as ambassadors to participate, give their opinion and decide on actions to achieve a sustainable energy future. Paola and Areli are co-founders of the Student Energy Chapter at the University of San Francisco Xavier de Chuquisaca, in Bolivia.

#### Degrees of Change (India)

Tanmay Takle and Isha Kulkarni

For their Leaders Fellowship project, Tanmay Takle and Isha Kulkarni have developed Degrees of Change, a community working to demystify climate change and sustainability in India and the world. They hope to inspire systemic action by providing insight and analysis through a holistic lens. Their platform serves as a voice for like-minded individuals across borders and disciplines, dissatisfied with the alarmist rhetoric around sustainable development, each with a unique insight to offer. Check out their website <a href="here">here</a>!

#### GridLight by +Aware (UK, Germany, Spain, Australia)

Julia Cilleruelo Palomero, Lars Schellhas, Freya Espir, Kitty Stacpoole, Natalie Carter, Monika Blankenburgs, Michael Ehrenstein

This project aims to educate and empower the electricity consumer to use their electricity appliances with a lower carbon footprint. GridLight is a traffic colour-coded lamp that everyone should have in their kitchen or living room. It is as simple as understanding that when GridLight is green, the grid is less carbon intensive, and when it is yellow or red the grid's carbon footprint is larger on average. The result is a more efficient integration of renewable technology, reducing carbon emissions. Their team met at the 2019 Student Energy Summit in London, and are proud to be one of the winners of the Innovation Jam.

## OUR IMPACT IN 2020: LEADERS FELLOWSHIP

#### LEADERS FELLOWSHIP SPOTLIGHT

#### Climate Crisis Coalition (Canada)

Grace Young, Serena Mendizabal, Sam Andison, Dan Nejman, Elijah Dietrich

Formed for the team's Leaders Fellowship Project, the Climate Crisis Coalition (CCC) is a forum to convene all students, faculty, and staff at Western University that are interested in advancing a sustainable, zero-carbon campus and full divestment from their university's fossil fuel holdings. They are mobilizing mobilize the people of Western and the surrounding community to offer their support to this movement as they call on Western to commit to tangible goals and take part in the worldwide effort to mitigate the most damaging effects of climate change.

Easy Bike Unpad (Indonesia)

Fariz Muhammad Rizwan, Kenny Yohanda, Lia Yuliansah, Arya Fajrul Ikhsan, Muhammad Fadhlih Rizgon Khalish

Easy Bike Unpad's mission is to provide solarpowered electric bicycles on their campus, to decrease the number of carbon-emitting vehicles. During the course of the Leaders Fellowship, they conducted research and built their first prototype to demonstrate to their university how they can implement this eco-friendly transportation solution across campus. The team is now looking for financial support from their university to scale up the project.

#### Girls4Rurals (Nepal) Sadikshya Aryal, Kuldeep Bandhu Aryal

During the course of the Leaders Fellowship, Girls4Rurals conducted research on the effectiveness of subsidy provisions and needs-mapping of Kavre in the Dolakha Distrct, to support their mission of enabling young girls as energy producers and consumers, and advocates for climate justice. The team conducted design thinking workshops to promote efficient use of energy. Girls4Rurals now includes 200+ young people as part of their network.

#### The Energy Talk (Nigeria, Qatar) Olubunmi Olajide

For his Leaders Fellowship Project, Olubunmi hosts The Energy Talk Podcast, where complex energy topics are explained through first hand storytelling. Through interviews with industry experts, young professionals and students from around the globe, The Energy Talk explores the rapidly changing world of our energy supply and demand, and shares stories about energy as we race to meet our climate goals.

#### Sierra Leone Energy Smart Schools Project (Sierra Leone)

Jeremiah Thoronka, Sheillah Munsabe, Joseph Turay

The objective of the SL-ESSP project is to raise overall energy awareness among high school students, targeting 20 schools where energy usage is high and further increase awareness among students and staff on how best to reduce their consumption rate by the end of 2020. The team carried out a comprehensive training and awareness program, including a guest speaker series and short course, to teach students about energy conservation and energy efficiency.

ReconMETU (Turkey)

Bader Bilgin, Büşra Yıldırım, Ceyhun Koç, Elif Bişirici, İlayda Özirmak, Merve Peker, Ozan Can

The ReconMETU team had a goal to solve the transportation problem on their campus while reducing carbon emissions and improving the GreenMetric ranking of their campus. They developed a solar-powered electric scooter charging station, as this was found to be a feasible transportation option for students. Due to COVID-19 interrupting their project plan, the team pivoted to writing a Conference Paper about sustainable mobility solutions centered on their electric charging station idea. Currently, the team is seeking funding to turn their research into reality at the METU campus.

## OUR IMPACT IN 2020: GLOBAL PROGRAMS

In 2020, our program offerings were truly global and spanned six continents. Here's a quick snapshot of our program reach:

- 47 Chapters in 22 countries
- 12 Regional Coordinators in 12 countries for the Global Youth Energy Outlook
- 15 Greenpreneurs teams in 12 countries
- 50 Leaders Fellowship teams with 160 individual participants in 30 countries

- 6 International Student Energy Summits since 2009, in 5 countries
- 223 countries represented in web Energy System Map views
- 168 countries represented in YouTube Energy System 101 video views

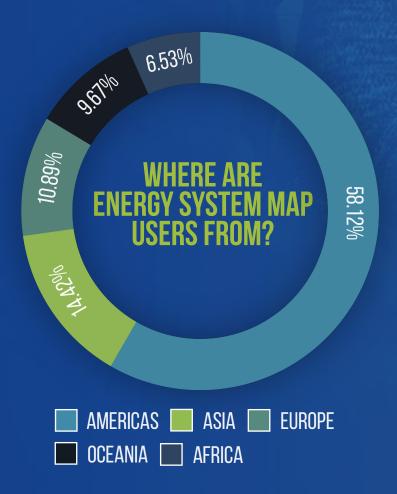


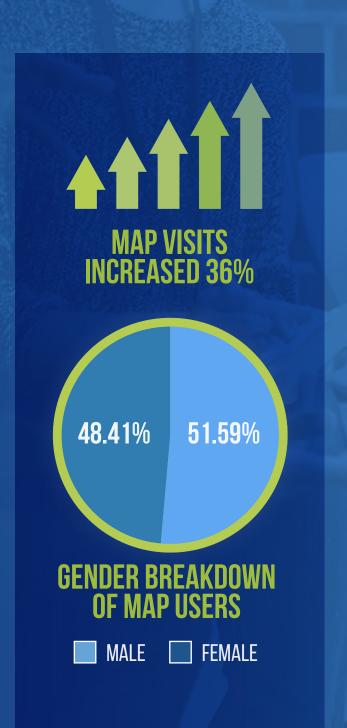
## OUR IMPACT IN 2020: ENERGY SYSTEM MAP

We launched Student Energy's new website in 2021, after an iterative and consultative process with our youth network to learn more about the features they would most like to see.

As part of this design and functional overhaul, we introduced an updated Energy System Map, featuring a new layer of topics: Influences. These are the social, political, and ecological factors that influence and are influenced by the energy system, and are some of the areas where young people can take action.

## HOW DID WE DO IN 2020?





1,125,103 ENERGY SYSTEMS MAP WEB VIEWS 2,574,997 YOUTUBE VIEWS 140% INCREASE FROM 2019 11,926 NEW SUBSCRIBERS

The Energy System Map is built by young people, for young people, with topic page content contributed by youth and reviewed by subject matter experts in our network. Thank you to our 'Influence' layer authors for your contribution in 2020! See end of report for a list of authors.







STUDENT

# OUR IMPACT IN 2020: GLOBAL YOUTH ENERGY OUT LOOK

The Global Youth Energy Outlook is the first report of its kind that will outline what young around the world want to see for the future of energy in their region, and how they want to work to change the energy system.

Led by Student Energy and a team of 12 Regional Coordinators, this is an entirely youth-led research and data gathering project.

The final report is expected to launch at the UN Climate Change Conference (COP26) in November 2021.



9 survey languages

12 Regional Coordinators

10 global regions

50 Regional Dialogues

## GOAL: 50,000 YOUTH ENGAGED

#### SEP 2019 - JAN 2020

GYEO formally announced at UN Climate Action Summit and Energy Action Forum 2019

GYEO partnership building and stakeholder research at COP 25 in Madrid

#### **MAR 2020**

Onboarded Global Youth Energy Outlook Manager

Began selection process for Regional Coordinator team

#### IIINF 2020

After training, Regional Coordinators begin to build networks and outreach planning for the summer

#### **AUG 2020**

Out ook research and call for participants publicly launched, describing the 2-phase research: a Questionnaire, and series of Regional Dialogues

#### OCT 2020

Research questionnaire revisions complete after iterative 5-month consultation with Student Energy team, Regional Coordinators, and subject matter expert advisors

#### **DEC 2020**

'Youth Perspectives on Industry Transition' brief with insight from 4 Regional Dialogues published at industrytransition.org/insights

Regional Coordinators recruited rolunteer Country Ambassadors to support with outreach

#### FEB 2020

Put out globa call for youth Regional Coordinators to apply to lead the GYEO research and outreach process

#### **MAY 2020**

Regional Coordinators selected from applicants across 30 countrie

#### **JUL 2020**

GYFO page launched on new website: studentenergy.org/outloo

#### **SEP 2020**

"Meet the Outlook Team" Socia Media campaign takes place on Instagram and other platforms

#### **NOV 2020**

GYFO Questionnaire posted live in 8 languages, and announced across social media platforms

First set of 4 Regional Dialogues are held, in collaboration with Founding Partner LeadIT

## OUR IMPACT IN 2020: GLOBAL YOUTH ENERGY

#### **MEET THE REGIONAL COORDINATORS**

In February 2020, Student Energy put out a call for applications to join a team of ten young people from around the world who would work together over the next six months to develop the Global Youth Energy Outlook. We received incredible applications from 30 countries, and selected twelve Regional Coordinators to form a truly global, multidisciplinary team. The Regional Coordinator team brings expertise in energy, research, policy and international development, and youth engagement. Together with Student Energy, they will be conducting outreach in their Regions by organizing a team of volunteer Country Ambassadors, creative social media campaigns, and connecting with universities, non-profits, and existing youth networks.



CHIBUNNA OGBONNA



JARRET FISHER



ARSENII KIRGIZOV-BARSKII



#### NABILA PUTRI SALSABILA



#### SYED FAISAL SHAH



#### LINETTE KNUDSEN



#### PAOLA FLORES CARVAJAL



#### KAYLA CHOI



#### **JOSHUA MIGUEL LOPEZ**



#### TIANNA PHILIPPOT



#### NYASHADZASHE KUNAKA



## OUR IMPACT IN 2020: GREENPRENEURS

Greenpreneurs is a 12 week virtual entrepreneurship incubator and competition open to youth between the ages of 17 and 35, hosted as a partnership by Student Energy, Youth Climate Lab, and the Global Green Growth Institute. Teams of young people are invited to submit their idea for a solution that positively impacts the future of sustainable energy, sustainable landscapes (forestry and agriculture), or green city development. This year, 15 teams from 12 countries joined the Greenpreneurs 2020 cohort following a rigorous selection process.

#### **WINNING TEAMS**

#### **Bamboo Labs - Ethiopia**

Bamboo Labs is a social enterprise that promotes affordable, accessible, and sustainable transport

systems by using renewable resources to create positive environmental impact. Having started as an enterprise that created wheelchairs framed entirely out of bamboo, Bamboo Labs has recently expanded mobility options by offering bamboo bicycles.

#### Neurafarm - Indonesia

Neurafarm is a smart farming company with a singular mission: to improve productivity and resource use efficiency in the agriculture industry through smart/precision farming. Neurafarm wants to end world hunger, increase farmer welfare, and make the world a better place. The team also believes that precision farming is something that all farmers can do, and is something they seek to enable.

#### Peec Energy - Uganda

Peec Energy has created a revolutionary new approach to bring affordable solar electricity to everyone. Their novel solution unlocks an unaddressed market for solar, removing the barriers to entry formulti-dwelling residents, and allowing solar providers to service a new and growing market without reliance on other incentives. Peec Energy's mission is to increase access to electricity in hard-to-reach and underserved markets.

#### Power Box - Mongolia

Using solar and wind resources, Nomadic PowerBox works to alleviate energy and economic poverty for those living and working in off-grid areas, and beyond. PowerBox is an all-in-one mobile power plant (truck and container versions) that operates a built-in cold storage unit and stores excess power in batteries for universal application across multiple industries

#### **GREENPRENEURS 2020 COHORT**



"COVID-19 had a serious effect on our enterprise, like many others. Adaptation of our existing operation was integral and that was whenresources and modules from Greenpreneurs proved extremely useful. The best part was that we were able to incorporate our learningsfrom the ground to strategize our business idea that adopts the new normal."

FIR Green City Development

- Solar Forward Team (Nepal)

"Participating in the Greenpreneurs program has been a life changing experience which every entrepreneur running a green business would love. The program has taught us to focus on creating social impact with sustainable business models. Interacting 1:1 with mentors helped our professional development as it gave us a chance to get feedback from experts and advice on how to best run our social enterprises."

- Peec Energy Team (Uganda)

## OUR IMPACT IN 2020: INTERSECTIONAL EQUITY TASK FORCE

Recognizing that we are often in spaces where we are one of few youth-led organizations represented, raising critical questions on justice and equity in relation to the energy transition and climate change is an important part of Student Energy's daily work.

The purpose of the Intersectional Equity Task Force is to evaluate Student Energy's external and internal policies and practices, and build permanent accountability mechanisms within the organization's Board, staff, and volunteers. The task force will also develop strategies for explicitly incorporating anti-racist principles and advocacy into the work we do. The Intersectional Equity Task Force is made up of 12 members: 2 from Student Energy's Board of Directors, 4 staff members, and 6 current or former Student Energy program participants from around the world. The initial term of the Task Force is one year, from August 2020 to 2021.

#### **SE GLOBAL NETWORK**



MARK CHEUNG



**DANIELLE NICOLARDI**Canada



SHRADHA PANDEY



MAURICIO MANUEL CANTO ROMERO Mexico



JEREMIAH THORONKA



RHYTHIMA SHINDE Switzerland

#### **STAFF MEMBERS**



SHAKTI RAMKUMAR

Communications Manager



HELEN WATTS

Director of Innovation and
Partnerships



**GRACE YOUNG**Chapters Project Assistant



**SEAN COLLINS**Director of Applied Learning.

#### **BOARD MEMBERS**



**TIMOTHY HENSMAN**Treasurer, Board of Directors



**ROSIE PIDCOCK**Secretary, Board of Directors

#### **FACILITATORS:**

Apefa Adjivon, Student Energy Innovation Lead Meredith Adler, Executive Director of Student Energy Tai Jacob, Alumni Network Coordinator *(until Feb 2021)* Kali Taylor, Board Chair and Co-Founder of Student Energy

## LOOKING AHEAD: NEW STRATEGIES IN 2021

#### THE PROGRAMS ECOSYSTEM

With the successful completion of the first Leaders Fellowship program, growing Chapters network, and expanded staff capacity that allows us to broaden our program offerings, we are currently reimagining and reorganizing Student Energy's standalone programs as one cohesive **Programs Ecosystem**.

#### Impacts of the Programs Ecosystem approach:

- Student Energy's programs are **highly integrated**, with shared community experiences and alumni networks.
- Participants have the opportunity for continuous engagement with Student Energy, entering the Programs Ecosystem with a program best suited to their needs and time capacity initially and growing into different programs over time as they choose.
- Navigating through multiple programs in the Programs
   Ecosystem will equip young people with a broad set
   of education and career skills, to be highly qualified
   systems thinkers who are prepared for a dynamic
   career in energy and climate action.
- Programs Ecosystem will act as the catalyst for thousands of sustainable energy entrepreneurs and intrapreneurs, by providing participants with the skills, peer community, mentor network, and resources needed to implement and scale their energy solution.
- Partners will have the option to support Student Energy's Programs Ecosystem as a whole, with their support benefitting young people at all stages of their study and career, from all levels of energy knowledge and experience, to build the skills necessary for the energy system of the future.

#### DIRECT TO YOUTH FUNDING

We have often heard from our global youth network that one of the most impactful ways organizations can support youth innovation and energy solutions is by directly funding young people's work, as access to financial resources is the biggest barrier to implementing and scaling projects, particularly for youth in Global South countries. In 2020, roughly 11% of our budget, or CAD\$120,000 went to directly funding young people's work and projects.

In 2021, we are developing our most ambitious direct-to-youth funding strategy yet, with a goal to build a \$10 million dollar capital fund to advance the development and execution of global youth-led projects and businesses.

#### EXPANDING BOARD OF DIRECTORS

We are finally able to invite new members to our Board of Directors who are based outside of Canada! This has been a goal of many years for Student Energy, as we would love to have our Board of Directors reflect the intergenerational and geographic diversity of our global alumni network.

We have put out a call for alumni who have participated in Student Energy's programs at any period during our 12 year history to apply to join our Board, and look forward to welcoming 2-6 new Directors in the new year.



## LOOKING AHEAD: ENERGY TRANSITION TRAINING PROGRAM (ETTP)

The goal of the Energy Transition Training Program is to place young leaders into existing and emerging clean energy careers. The pathway to a career in clean energy is often not a clear one for many young people, particularly those who do not have the personal or professional connections to enter these careers, or access to the necessary education and skills training opportunities to become competitive candidates within the growing clean energy sector.

We will be piloting a new program, the Energy Transition Training Program (ETTP), to help young people develop a baseline of fundamental energy knowledge, as well as applied analytical and technical skills, to be able to enter a career in clean energy upon completion.

Following an extensive stakeholder consultation and needs-mapping process that took place throughout

the third quarter of 2020, Student Energy will be creating open-source energy education content and developing a unique 4 month cohort-based program for participants that includes an applied capstone project.

The course will offer four career tracks for participants:

- Project Development Career Track
- Energy Analyst Career Track
- Energy Policy Analyst Track
- Energy Finance Career Track

Each career track will cover diverse topics in energy, such as Energy Systems 101, Data Analysis, Public Policy Analysis, Energy Economics, Project Management, and Energy Efficiency. The pilot phase of the program will take place in 2021 and 2022.

## GLOBAL YOUTH ENERGY OUTLOOK REPORT

The Global Youth Energy Outlook report is currently planned for a formal launch in November of 2021 at the United Nations Climate Change Conference, or COP 26, in Glasgow, Scotland. Throughout 2020, Student Energy's Regional Coordinators and volunteer Country Ambassadors will be conducting outreach to engage 50,000 young people in the Outlook's research process, which includes a questionnaire available in 9 languages and a series of Regional Dialogues to dive into focused energy topics.

Following the initial data collection process, Student Energy will work with the Regional Coordinators to

synthesize and prepare the report. We will consult with our mentors and subject matter experts in our network, including our three Founding Partners of the Outlook: DNV, the Stockholm Environment Institute's Leadership Group for Industry Transition (LeadIT), and the Government of Denmark.

Throughout 2021, Student Energy will host a series of engagement points to profile regional insights from the Global Youth Energy Outlook and generate momentum for global youth-led action on energy.



### LOOKING AHEAD: SEVENGEN 2021

The SevenGen Indigenous Youth Energy Summit is an Indigenous youth-led conference that connects youth from coast to coast to coast. SevenGen creates pathways to education, and fosters sustainable partnership development between Indigenous youth, communities, and organizations as it relates to Indigenous ideologies of the earth.

Led by the SevenGen Council, the program empowers both Indigenous youth and energy kin to continue improving connections and understandings for a shared energy vision. Building on the first SevenGen Summit in 2019 which brought together 200 Indigenous youth, this second Summit aims to unite Indigenous youth in November of 2021 in the City of Saskatoon provided that young people from all places will be able to travel safely at the time.

## INDIGENOUS YOUTH MENTORSHIP PROGRAM

To support the powerful impact of SevenGen to turn into tangible community action, the SevenGen Council is currently developing the Indigenous Youth Mentorship Program (IYMP), in collaboration with Student Energy and Indigenous Clean Energy.

From April 1st, 2021 to March 31st, 2022 the SevenGen Council will facilitate the Indigenous Youth Mentorship Program to support 2000 Indigenous youth in designing, implementing, learning about and celebrating 10 youth-led projects focused on energy, environment, food, and water issues impacting biodiversity, climate change, and the land.

SevenGen's Indigenous Youth Mentorship Program will provide an equitable opportunity for Indigenous youth (ages 18-30) from across Canada to design, implement, and celebrate 10 sustainable projects focused on energy, environment, food, and water issues that will impact biodiversity, climate change, Canadian and Indigenous economies, and the land. The Sevengen IYMP will create a Canada-wide ecosystem of support that enables Indigenous youth to lead on their energy future. The core component of the program will be providing 10 teams of Indigenous youth with funding, coaching, mentorship, and elder support they need to launch an energy project in their community.

At the heart of the program is a commitment to invest in Indigenous youth, believe in their visions for their communities, and empower them with the right support and skills to lead the change.

This is what matters in moving towards meaningful reconciliation.

- SevenGen Council

## OUR COMMITMENT

## TO ADDRESSING RACIAL INJUSTICE IN THE SUSTAINABLE ENERGY TRANSITION

ORIGINALLY PUBLISHED JUNE 1, 2020 ON STUDENTENERGY.ORG

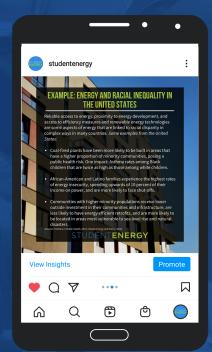
The widespread activism and collective organizing in the United States, Canada, and now globally over the past several days has brought racial injustice to the forefront of digital media and discourse. This movement is not new: Black activists and organizations, particularly young people, have been organizing for decades to dismantle and rebuild inherently racist and unjust legal, educational, and governance systems that give rise to police brutality and state violence. However, this moment calls for all organizations regardless of sector to learn, support and amplify movements led by Black activists, and to encourage their network to do the same.

While systemic racism and police violence in the United States may dominate news media coverage, we cannot ignore that systemic racism and state violence are prevalent in Canada as well. Ongoing violence against Black and Indigenous communities in Canada is something we must address even after this moment, even in spaces or situations where it may not be comfortable to do so.

In the energy industry and in the energy and climate advocacy space, there is an underlying, and often unnamed issue: While some organizations do advocate for justice and equity as an integral part of a sustainable energy future, there are countless others whose advocacy is limited only to technological and policy solutions to reduce emissions and achieve economic growth. These incomplete approaches aim to address the climate crisis without explicitly addressing the systemic racism and injustice present in the energy system, in the climate crisis, and in the environmental movement. As Student Energy's

vision is to empower young people to create an energy future that is both sustainable and equitable, it's extremely important to start this conversation with our fellow organizations in the energy space.

Student Energy's Theory of Change outlines our values as an organization, and these values are centered on listening to and empowering young people and embedding equity and climate justice as an integral part of the energy transition. Recognizing that we are often in spaces where we are one of few youth-led organizations represented, raising critical questions on justice and equity in relation to the energy transition and climate change is an important part of our daily work.



We also aim to use our social media platforms to explain concepts like environmental racism and energy justice at an introductory level in our #Energy101 post series, which also include strategies for youth to take action.

Left: A snapshot from our Energy Justice carousel on Instagram which explains the link between energy and racial inequality, using case studies from the United States.

Find our regular posts @studentenergy in Instagram, Twitter, LinkedIn and Facebook.

# OUR COMMITMENT TO ADDRESSING RACIAL INJUSTICE IN THE SUSTAINABLE ENERGY TRANSITION

ORIGINALLY PUBLISHED JUNE 1, 2020 ON STUDENTENERGY.ORG

#### **NEXT STEPS FOR STUDENT ENERGY**

- We are researching and developing a framework to embed anti-racism and equity into how we design and collaborate on programs with our partners. This framework will serve to increase the accessibility of our programs to BIPOC youth, resourcing for BIPOC youth-led sustainable energy initiatives, and support youth-led work with direct impacts on human rights in energy such as universal access, health and safety, energy in disaster responses, anti-discrimination in energy, community and Indigenous rights, and the relationship between conflict and energy.
- Wewillbeaddingadditionalanti-racism resources to our Communicating Justice and Equity in the Energy Transition training that is a part of staff onboarding. This resource is an introduction to the concepts of energy and climate justice, and explores historical and ongoing inequity across all aspects of the global energy system.
- The impacts of climate change, the economic downturn, and the long-term effects of COVID-19 will be disproportionately felt by BIPOC communities. As we are an organization based in Canada, we will be advocating for Canada's climate plans and COVID-19 recovery efforts to address systemic racial and economic inequity and include plans on how the future clean economy will not just be sustainable, but equitable.

- We will continue to seek out, work with, compensate and recommend Black-led organizations, speakers, and service providers.
- We will hold space in the workplace far beyond the next several weeks to continue to learn together about what anti-racist advocacy looks like for Student Energy, for the global climate movement, and for our team as individuals.

Finally, we want to emphasize that Student Energy's conversations on equity and anti-racism in the climate and energy space will continue well beyond this current moment. We are committed to ongoing learning as an organization, and taking action to address anti-Black, anti-Indigenous and other forms of racism in the climate and energy space.

We are committed to addressing economic and power inequities for young people globally and at an intersectional level, whether that means reducing barriers to access leadership-development and educational opportunities, accessing decision-making spaces, or being better equipped to implement appropriate climate solutions for their communities. the Student Energy Summit, Leaders Fellowship, and other programs, we learned that there is rapidly growing demand for programs built on this model.

## **ENERGY SYSTEM MAP AUTHORS**

These authors contributed content for a new layer of topics on the Energy System Map called Influences in 2020:

#### **TOPIC**

Air Pollution

Blockchain

Carbon Capture, Utilization, and Storage

Cities: Urbanization & Rising Energy Demand

Clean Cooking

Climate Change

Climate Finance

Climate Movements

Communicating Energy

District Energy

**Energy Access** 

**Energy Finance** 

Energy Efficiency

**Energy Policy** 

Energy Storage

Greenhouse Gas Emissions

Heating & Cooling

#### **AUTHOR**

Disha Veena Giridhar

Rhythima Shinde

Dominika Janowczyk

Linette Knudsen

Chrystabel Kelvin-Ojieh

Shakti Ramkumar

Daniel Tan

Tarras Zellerbach-Adams

Jane Burchill

Henrique Lagoeiro

Shakti Ramkumar

Disha Veena Giridhar

Shakti Ramkumar

Disha Veena Giridhar

Rylan Urban

Chris White

Shakti Ramkumar

Sajith Wijesuriya

#### **NOTE ON CONTENT TRANSPARENCY**

The Energy System Map's topic pages are written by volunteer student writers who were selected from a global pool of applicants, and asked to research and write a focused introductory piece on a fundamental energy topic. Topic pages have been reviewed by Student Energy's team, independent energy experts, and members of our youth network to ensure that they are as objective as possible, and relevant for a global youth audience. All authors, contributors, and reviewers are listed on each Energy System Map topic page.

### STUDENT ENERGY TEAM

#### **BOARD OF DIRECTORS**

Kali Taylor Board Chair, Student Energy Co-Founder

Janice Tran Vice Chair, Student Energy Co-Founder

Timothy Hensman Treasurer

Dan Fipke Director

Rosie Pidcock Secretary

Julia-Maria Becker Director

Mihir Desu Director

#### STUDENT ENERGY GLOBAL

Meredith Adler Executive Director meredith@studentenergy.org

Helen Watts
Director of Innovation and Partnerships helen@studentenergy.org

Olivia Reshetylo Director of Global Youth Engagement olivia@studentenergy.org

Angela Paley Project Manager angela@studentenergy.org

Shakti Ramkumar Communications Manager shakti@studentenergy.org

Tarras Zellerbach Adams Graphic Design Assistant tarras@studentenergy.org Marcus Bockhold Leaders Fellowship Coordinator marcus@studentenergy.org

Abdullah Khair Greenpreneurs Coordinator abdullah@studentenergy.org

Lexi Kinman
Partnerships Assistant
lexi@studentenergy.org

Connor Thompson Global Youth Energy Outlook Manager connor@studentenergy.org

Fiona Wu Administrative Assistant fiona@studentenergy.org

Greta Jang Communications Assistant greta@studentenergy.org

Apefa Adjivon Innovation Lead apefa@studentenergy.org

Tai Jacob Future Skills Coordinator tai@studentenergy.org

Yalda Mehran Communications Coordinator yalda@studentenergy.org

Chloe Sterrett

Data and Systems Coordinator chloe@studentenergy.org

Claris Canta Internal Systems Coordinator claris@studentenergy.org

Soham Punjabi Energy Education Project Coordinator soham@studentenergy.org

Jackie Bastianon
Digital Engagement Coordinator

jackie@studentenergy.org

Kabir Nadkarni Ventures Research Coordinator kabir@studentenergy.org

Sean Collins
Director of Applied Learning scollins@studentenergy.org

Adriana Sgabellone Executive Assistant adrianas@studentenergy.org

Camilo Romero Leaders Fellowship Coordinator camilo@studentenergy.org

Maheep Sandhu Partnerships Assistant maheep@studentenergy.org

Grace Young Chapters Project Assistant grace@studentenergy.org

### SUMMER 2020 COORDINATORS

Matthew Colenbrander Alicia Margono

#### **SEVENGEN COUNCIL**

Nathan Kaye - Co-Chair

Jordyn Burnouf - Co-Chair

Sydney Kuppenbender - Program

Shana Southwind - Marketing

Serena Mendizabal - Logistics and Events

Mihskakwan James Harper - Sponsorship

Danielle Kehler - Delegate Relations

Jukipa Kotierk - Delegate Relation

## STUDENT ENERGY TEAM ORGANIZATIONAL CHART

#### **BOARD OF DIRECTORS**



Project Manager



CHLOE Data and Systems Coordinator



CLARIS Coordinator



FIONA Administrative



Director of Global Youth Engagement



Leaders Fellowship Coordinator



GRACE Chapters Project



CAMILO Leaders Fellowship



TAI Future Skills Coordinator



SOHAM **Energy Education Project Coordinator** 





ADRIANA **Executive Assistant** 



**KABIR** Ventures Research Coordinator



JORDYN SevenGen Co-Chair



NATHAN SevenGen C0-Chair



Director of **Partnerships** 





**ABDULLAH** Coordinator



CONNOR Global Youth Energy Outlook



**APEFA** 







Graphic Design



Digital Engagement





Digital & Social Media Marketing

### 2020 SPEAKING ENGAGEMENT HIGHLIGHTS

- Jan 1: International Renewable Energy Agency "IRENA Youth Forum" Training workshop facilitator (Helen Watts)
- Feb 2: Leading Change Forum 2020, "Energy Transformation: Mapping Our Energy Futures Policy Sprint" presenters (All Staff)
- Feb 12: GLOBE 2020, "What if? Unpacking energy scenarios and what they mean for Canada" Moderator (Meredith Adler)
- Feb 20: How to Change the World Canada 2020, Innovation Expert (Angela Paley)
- Feb 22: MiniEnterprize Conference, "Systems Thinking & Theory of Change: Tools for Impact" Speaker (Shakti Ramkumar)
- May 7: Ontario Tech Career Services, "Career Advising Webinar" Speaker (Olivia Reshetylo)
- Aug 17: How to Change the World Canada Conference, "Recovery Canada". Innovation or Challenge Experts (Helen, Olivia Reshetylo, Apefa Adjivon, Angela Paley, Abdullah Khair, Lexi Kinman)
- Aug 25: How to Change the World Canada Conference, "Recovery Career Marketplace" Speakers (Shakti Ramkumar, Abdullah Khair)
- Sep 17: Clean Energy Ministerial 11 (CEM11) and Mission Innovation Ministerial 5 (MI-5) Side Event "The Journey of Clean Energy Innovators" Speaker (Helen Watts)
- Sep 22: Student Energy & Cenovus Webinar, Moderator (Meredith Adler)
- Sep 23: YWCA Women of Distinction Award recipient (Meredith Adler)
- Sep 23: Smart Grid Innovation Network (SGIN), "Energy Transition During a Global Pandemic" Speaker (Meredith Adler)
- Oct 15: Innovate4Cities: Knowledge Needs for City Climate Ambition, Speaker (Meredith Adler)
- Oct 15: Innovate4Cities: Knowledge Needs for City Climate Ambition, Speaker (Olivia Reshetylo)
- Oct 26: SERM 3.0, Inauguration Speaker (Meredith Adler)
- Nov 12: International Coalition for Sustainable Infrastructure (ICSI) Virtual Symposium, Speaker (Meredith Adler)
- Nov 18: Canadian Business Youth Council, "Corporate-Youth Roundtable: From ESG greenwashing to true impact measurement", Speaker (Meredith Adler)
- Nov 22: REN21 Young Professionals Day (YPD), Speaker (Meredith Adler)
- Nov 30: Energizing North America Public Policy for the Clean Energy Transition, Speaker (Meredith Adler)
- Dec 14: SDG7 Youth Constituency Town Hall, Speaker (Maheep Sandhu)



### **CONFERENCES & EVENTS ATTENDED**

- Breakthrough Energy Solutions Canada Forum (Meredith Adler)
- Canadian Youth Climate Action Jam Session (Helen Watts)
- Blaney Youth Day (Shakti Ramkumar)
- Sustainable Energy for ALL Hackathon (Helen Watts)
- Powering Past Coal Alliance Strategy Session (Meredith Adler, Helen Watts)
- VTC on Sustainable Energy for All forum Hackathon event (Helen Watts)
- Youth Climate Jam Follow-up (Helen Watts)
- Clean Resource Innovation Network SC (Meredith Adler, Helen Watts)
- IRENA Youth Talk Webinar on COVID-19 (Helen Watts)
- Insights for Grant-makers: Canadian charities' perspectives (Lexi Kinman)
- COVID-19 and Women's Energy Entrepreneurship (Lexi Kinman)
- #TABLETOPICS: A Virtual Dinner Conversation on Change (Meredith Adler)
- Positive Energy Workshop (Meredith Adler)

### **BOARDS AND COMMITTEES**

- Clean Resource Innovation Network Steering Committee (Meredith Adler, Helen Watts)
- CEA Public Advisory Board (Meredith Adler)
- CleanBC Advisory Board (Olivia Reshetylo)
- Energy Futures Lab Advisory Board (Olivia Reshetylo)
- IRENA 2020 Youth Forum Organizing Committee (Helen Watts)
- UN Climate Summit Energy Transition Action Track Organizing Committee (Helen Watts)
- Clean Power Pathways Steering Committee (Meredith Adler, Shakti Ramkumar)

### **AWARDS**

#### 2020 WOMEN OF DISTINCTION AWARD IN ENVIRONMENTAL SUSTAINABILITY

Student Energy's Executive Director Meredith Adler was awarded the 2020 Women of Distinction Award by the YWCA MetroVancouver, which honours individuals and organizations whose outstanding activities and achievements contribute to the well-being and future of our community.

#### FEATURED ON THE YOUTH SUSTAINABLE ENERGY HUB

The Global Youth Energy Outlook was selected as one of the 98 projects to be featured in the Youth Sustainable Energy Hub, a global platform showcasing the work of youth practitioners in the sustainable energy sector.

## 2020 PARTNERS

Student Energy's work is supported by a growing number of Canadian and global partners, and we formed several exciting new partnerships in 2020. We are grateful to our long term partners for supporting Student Energy's work through our evolution as an organization, and to our new partners for supporting young people to take action on energy in this crucial time for the sustainable energy

Learn more about Student Energy's Partnership Principles at <a href="https://www.studentenergy.org/partners"><u>www.studentenergy.org/partners</u></a>

#### **FUNDING PARTNERS**

























#### **GLOBAL YOUTH ENERGY OUTLOOK FOUNDING PARTNERS**







## 2020 PARTNERS

#### STRATEGIC AND COLLABORATIVE PARTNERS

Strategic and Collaborative Partners are organizations with ongoing initiatives related to youth, sustainable energy, or climate change that we collaborate with to mutually enhance our programs and initiatives, with a shared goal of supporting young people who want to take action on climate change and energy. Strategic and Collaborative Partners provide in-kind support for our programs through knowledge-sharing, network-building, sharing opportunities with our youth network, and providing access to learning resources.











































