



# CLEAN ENERGY ECONOMY & WORKFORCE PREPARATION

A Toolkit for Governments and Other Stakeholders from the Clean Energy Ministerial (CEM) Empowering People Initiative (EPI): Integrated Policymaking and Empowering Communications for the Clean Energy Economy and Workforce (IPEC) Project



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# Table of Contents

Author & Reviewers .....	<b>2</b>
Acknowledgements .....	<b>2</b>
Introduction .....	<b>3</b>
Background & Description .....	<b>4</b>
Opportunities .....	<b>7</b>
How to Use This Toolkit .....	<b>8</b>
Action Plan Template .....	<b>9</b>
Policy and Program Components .....	<b>15</b>
Workforce Development Policies & Programs .....	<b>16</b>
Clean Energy Economy Policies & Programs .....	<b>17</b>
Policy & Program Examples .....	<b>18</b>
Key Sources .....	<b>21</b>
Conclusion .....	<b>22</b>
Annex: Skills Development & Just Transitions Resources .....	<b>23</b>

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## Introduction

The need to implement equitable clean energy transitions globally is urgent. To meet the science-based targets to decrease the negative impacts of climate change, countries must rapidly decarbonize our energy systems by switching to energy efficient and low carbon energy sources. This rapid transformation of the energy system will require a parallel transformation in the workforce to source and transport the materials and design, manufacture, and install clean energy technologies. Furthermore, the energy workers of today must be considered and enabled to contribute to new clean energy economies. This Toolkit is based upon the information provided through a series of 2023 Solution

Summits, organised and facilitated by the U.S. Partnership for Education for Sustainable Development for the Clean Energy Ministerial's (CEM) [Empowering People Initiative](#) (EPI).

As co-leads, Canada, the European Commission, and the US launched the CEM EPI in June 2021. The objective of the EPI is to highlight critical socioeconomic elements of energy transitions as it relates to advancing skills, inclusivity, and workforce development in clean energy. The EPI works closely with like-minded partners to advance people-centred transitions as part of a net-zero future.

## Background: The Integrated Policymaking and Empowering Communications for the Clean Energy Economy and Workforce (IPEC) Project

In 2021, the United Nations Environment Programme's Youth and Education Alliance (UNEP-YEA) started a Green Jobs Initiative and co-authored, with the US Partnership for Education for Sustainable Development, a [Global Guidance for Education for Green Jobs](#). This document includes a framework for educational transformation and a compilation of over eighty resources useful to all involved in educating for the green economy. The initiative expanded into a multi-UN agency involvement via the [Education for Green Jobs Action Group](#) at the [Higher Education Sustainability Initiative \(HESI\)](#). Simultaneously, multiple organisations published documents on the gap between demand and supply for workers and the growing need for more workers skilled for clean energy transitions.

Through a series of international convenings for clean energy employers, career advisors, educators and other stakeholders, HESI identified governmental policymakers and program staff as a

crucial group for collaboration. Without collaboration and coordination across the many sectors of government impacting workforce policy, policies can be fragmented and inefficient.

The CEM EPI led the way to address this challenge and created the Integrated Policymaking and Empowering Communications for the Clean Energy Economy and Workforce (IPEC) project to convene policy staff from several areas of government, including education, labour, industry, economic development, and social affairs and well-being. IPEC created a series of four Solutions Summits open to all countries. The objectives of the Solutions Summits were to:

- Make it easier for participants and their governments to produce a prepared and inclusive workforce for clean energy transitions while accounting for the energy workers of today.
- Accelerate the rate of implementation to prevent the negative impacts of climate change and create healthy clean energy economies with higher quality of life for all.

The Summits provided a forum to share coordinated policies and communications. Registrants for the Summits came from the governments of over one hundred countries, including strong representation from the Global South. The Summits also included the implementing organisations from the following sectors for collaboration: employers, organised labour, education and workforce preparedness, local and regional governments, and civil society.

## Map of Participants

There were four Solutions Summits with over 480 registrants from 100+ countries. Click the map below for more details.



## Resources

In order to assist with implementation of these successful policies and communications, resources were shared during the Summits, which can be found [here](#).

A woman wearing a yellow hard hat, sunglasses, and a high-visibility orange and yellow safety vest over a blue and green plaid shirt. She is holding a red walkie-talkie to her mouth and smiling. In the background, there are several white wind turbines under a clear blue sky.

The Solutions Summits' recordings, slides, networking opportunities and resources are all available on the [IPEC website](#).

## Key Gaps

From our polling of participants, we found the following most frequently named key gaps:

- Lack of awareness and oversight about clean energy careers
- Lack of prepared trainers/educators
- Not enough collaboration or cooperation
- Education and training institutions not adapting curricula quickly
- Lack of coherence in policy, programming and practice
- Lack of interest in building the needed policies, programs and funding
- Reaching marginalised and diverse communities
- Funding and financing



## Opportunities

- Receive curricula and collaborate with the [International Renewable Energy Agency's Energy Transition Education Network](#).
- Find jobs, skills lists and educational opportunities for solar careers at the international [Solar Works Platform](#).
- Collaborate with local governments and higher education through [ICLEI: Local Governments for Sustainability](#).
- Use the International Labour Organisation's [Greening TVET and Skills Development tool for educators](#).
- Collaborate with the [Global Wind Organisation](#) to create country specific curricula.
- Networking choices:
  - Join the international virtual IPEC community via its [LinkedIn group](#) and [listserv](#).





## How to Use This Toolkit

The IPEC project aims to catalyse workforce preparation. This Toolkit provides information to accelerate the rate of workforce development for just and inclusive clean energy transitions. It is directed to both individuals and organisations to help country and sub-national level policymakers and program developers, as well as implementers from business, labour, education, civil society, and other allies. These targeted and vetted resources make it easier to identify the strategies and tactics to scale tested solutions. This toolkit includes information about how to join the international community formed in conjunction with this effort. Stakeholders can access new resources and leverage opportunities to collaborate with peers and experts to help overcome barriers, and prevent fragmented and duplicative efforts and achieve holistic and integrated approaches.

# Action Plan Template to Build the Clean Energy Economy & Workforce



## Introduction

Each of us can help prepare the workforce and the economy for the clean energy transitions, regardless of whether it is in our official job description. The urgent need to accomplish clean energy transitions is reflected in increases in clean energy and energy efficiency related jobs and a demand for skilled workers. To prepare the workforce, there are a large number of policies and programs required to: accelerate recruitment and career advising for the clean energy sector, update energy curricula for education and training, and streamline job placement and retention.

Policies and programs to support clean energy economies need to align with workforce policies. This Action Plan Template provides strategies and tactics to build coordinated efforts within and across communities, regions and countries.

For more assistance in using this template, contact Dr. Debra Rowe, Clean Energy Ministerial IPEC Project Lead and President of US Partnership for Education for Sustainable Development at [DebraRowe@aya.yale.edu](mailto:DebraRowe@aya.yale.edu).

## Stakeholders and Possible Allies for Collaboration

The stakeholder groups below play an active role in creating the clean energy economy and a skilled workforce. Coordination of these

stakeholders for collaborative policymaking and program development will decrease fragmented and duplicative efforts.

## Build a Coalition of Stakeholders



## Creating a Coalition

An important element of improving the clean energy economy and workforce is convening the right people to build an ongoing coalition of discussion, resource sharing, and actions. Look first for existing coalitions that are likely allies and connect to them to accelerate positive outcomes.

If no formal and effective coalition exists for collaboration that you can join, you can create a coalition. Who to include? Refer to the stakeholder groups in the diagram above. Be sure to schedule time in calendars for next steps to hold yourself and the coalition to forward progress.

## Expert Tip: Tracking the Coalition

Create a shared document showing all the connections I/we are making, so they can be nurtured.

1. Name, role, organisation and contact information
2. Basic description of my intent or desired outcome for each connection
3. Notes about the person/connection
4. Link to my document here -

## An Invitation to Engage Stakeholders

“You are in a position to help prepare our workforce for an equitable and robust clean energy transition. The Clean Energy Ministerial has been collaborating with experts and participants from over one hundred countries and has resources and information to share with you to build the policies and programs we need. We are convening key leaders and we cannot imagine doing this without you.”

## Creating a Shared Vision and Collaboration for the Coalition

As the coalition meets, it is worthwhile to find common ground and a shared vision by using the 4 Ps of creating a shared vision. Within two hours, the group can brainstorm:

1. Probabilities - What will happen if we do not change? This builds the motivation to change and can be done in a whole group.
2. Possibilities - What are the possibilities for the future of our community (or region or country)? In small groups, create these lists and make them visible to the whole group.
3. Preferabilities - What is our preferred future? Each participant uses five votes to choose their highest priorities. Votes are tallied immediately and a shared vision emerges.
4. Preparations - What needs to happen to create our preferred future? Create workgroups on the components of what needs to happen. Attendees then self-select into the workgroups.

After the 4 Ps, workgroups report bi-monthly on their efforts and celebrate their progress. Bring them more participants if they are not following through.



## Initial Questions to Answer

Actions need a clear identification of the vision, the challenges to be addressed, and the desired outcomes. These key questions will help you and your stakeholders lay this important foundation to inform tactics and action steps.

1. What are our workforce preparation gaps?
2. What are possible solutions to address gaps/needs, and how we will know when those solutions are achieved? I/We can identify multiple possible solutions, including key policies, programs to amplify best practices, and key collaborations to facilitate change. Not all of our efforts will be successful, but with actions on a set of solutions, some will see success.
3. What needs to be done to connect with decision makers and communicators to share identified solutions and facilitate change?
4. Who else needs to be involved to help scale good practices and policies? How can we connect these stakeholders and help them collaborate?
5. How can we meet people where they are, acknowledge their efforts so far, and find out what is motivating them?
6. Who needs resources and support to participate in solutions? How can we provide them with resources and support?
7. What are the most effective channels we should use to facilitate sharing of resources and information? Use more than one channel for greater impacts.
8. How can levers like policy mandates be utilised to accelerate implementation? Where does the funding to support such mandates reside?

## Ten Key Tactics for the Action Plan to Accelerate Policy and Program Implementation

1. Focus on where we can have the most impacts. Find leverage points for major positive changes given the existing gaps and challenges.
2. Position efforts as an emerging trend for implementers and use messages like “Don’t be left behind” for the obedient personality types.
3. Communicate the urgency, the need, suggested steps, success stories and help facilitate forward movement.
4. Send reminders. Marketers say most people need to hear messages at least three times to pay attention.
5. Be persistent, resilient, enthusiastic, flexible and kind.
6. Celebrate each step along the way and share or give credit to others.
7. Manage the emotional climate so people want to continue! Keep it positive and enjoyable to participate.
8. Align praise with desired outcomes. Praise is a motivator.
9. When reviewing actions, do not be too critical. To create changes, suggest your ideas as additions to their worthy efforts, and ask, “How can I help?”
10. Communicate visions of positive possible futures to provide hope. Hope is a known motivator for action.



## Meet Olga, An Intrapreneur

Olga had a job unrelated to clean energy workforce policies in a government energy office. She shared her interest in clean energy workforce preparation with co-workers and some education organisations and convened informal gatherings to discuss it. Olga structured these interactions to ensure they went beyond talking to acting. The group focused on helping get clean energy curricula to educators. They shared the idea with related organisations and governmental departments that then supported the idea by gathering curricula and communications to educators. As a result, they integrated clean energy curricula into HVAC, construction and electrical programs. Even if you cannot create policy, you can create important system-wide change by being an intrapreneur like Olga.

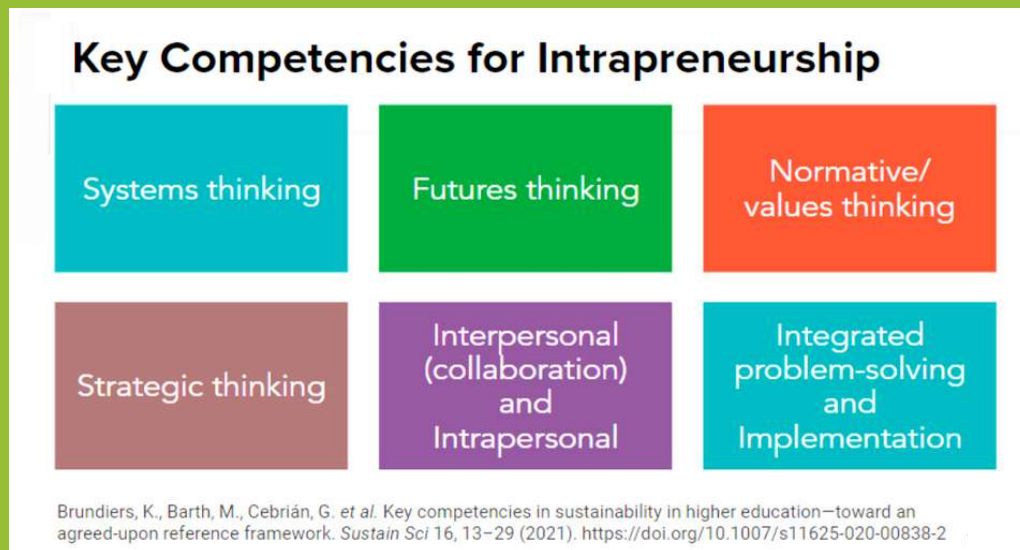
# Intrapreneurship Skills: Creating Organisational and Systems Change

What is an intrapreneur? An intrapreneur is a change agent within an organisation or larger system. An intrapreneur creates systems change. An intrapreneur looks at where changes can be made and creates collaborations with allies to make it happen.

What is systems change? Systems change addresses the causes, rather than the symptoms, of a societal issue to create positive changes across an organisation or society. Intrapreneurs find leverage points for systems change, and create coalitions to support and implement the change.

What kind of intrapreneur changemaker styles are yours? You might be a networker,

an investigator and problem solver, a nurturer, or another style. To create systems change, it is best to have multiple styles and be able to adjust your style to what is needed in a situation or a group. The best leaders identify what roles in a change coalition are missing and either build their task lists to meet those roles or identify other people to fill in the gaps. For a fun quiz to get you started on identifying what kind of changemaker you are, see this [self-assessment](#). Also see the figure below for a description of changemaker key competencies derived from the literature on sustainability education and applicable to being leaders in clean energy workforce development.



It is urgent that we help reduce the negative impacts of climate change by being intrapreneurs and helping create policies and programs for clean energy workforce development and an inclusive clean energy economy. Yet this role is not in enough people’s job descriptions. We cannot wait

for existing bureaucracies to catch up. To create the system changes needed, we all have to move beyond our outdated job descriptions. There are many, but not enough, stories of people going beyond their job description. All of us are in a position to help create a more sustainable future.

# Policy and Program Components for Clean Energy Workforce Preparation and Just Clean Energy Transitions

## KEY MESSAGE

**“To have successful clean energy transitions, we need to simultaneously build consumer demand, expand clean energy contractor engagement, and prepare the workforce. Equity considerations should be embedded throughout to create just and inclusive transitions.”**

**Dr. Debra Rowe - IPEC Project Lead**





## Workforce Development Policies and Programs

Policies and programs in the context of clean energy transitions extends beyond the training and hiring process, and should consider addressing the following areas:

- Coordinated workforce policies and programs in a national plan
- Empowering communications to improve and scale up governmental program impacts
- Labour market analyses and projections
- Tripartite structure: employers, trade union- workers and governmental entities coordination
- Structure/incentives for apprenticeships, labour market institutional policy
- Integrated recruitment efforts for clean energy educational and career pathways to increase the pool of workers, including support services for individuals with high barriers to entry
- Career advising before, during and after workforce education for all, and especially for women and marginalised groups
- Curricula updates, including program development, lab upgrades and professional development for educators
- Curricular development and updates for stand alone programs on solar, wind, etc. and for integration of green skills into existing curricula in programs such as electrical, heating and cooling, building design and construction, transportation, business etc.
- Programs for displaced workers from declining high carbon energy industries, including but not limited to fossil fuel workers
- Job placement processes
- Retention efforts in both educational pathways and jobs
- Provisions for inclusion and retention in the clean energy workforce by creating a welcoming culture for all workers
- Business engagement through professional development, including product education for owners and managers



## Clean Energy Economy Policies and Programs

A complementary list of important policies for inclusive and robust clean energy transitions are below. If the economy is not structured for clean energy transitions, workforce development will not be successful. They must be aligned. Note that this list not meant to be comprehensive but does address some key components:

- Energy literacy for all students and the public to build demand
- Inclusive green economy (e.g. energy access, energy poverty reduction, affordability of essential services)
- Manufacturing and supply chain policies related to clean energy transitions
- Professional development and policies for procurement staff to create market demand
- Education and resources for governmental officials and investors/financiers to facilitate decisions for accelerated clean energy implementation
- Comprehensive legislation to meet identified climate targets

# Policy and Program Examples

These examples are not comprehensive but provide useful information. Some of the examples below are from the EPI/ IEA “[Skills Development and Inclusivity for Clean Energy Transitions](#)”. See that study for more specific information. They are organised into the following five categories:

1. Clean Energy Skills Training
2. Skills Training for Displaced Workers
3. Cross Sector Partnerships: e.g. between industry, training/education, research, government
4. Targeted Programmes for Inclusiveness
5. Governmental Clean Energy Economy Transitions Policies

## Clean Energy Skills Training

Policy & Programs Promising Practices	Examples
Align workforce training and education programmes with climate change and clean energy transitions policy development	<ul style="list-style-type: none"> <li>• <a href="#">India’s Skill Council for Green Jobs</a></li> <li>• South Africa's <a href="#">REI4P</a> and <a href="#">SERETEC</a></li> <li>• <a href="#">EU Skills Agenda</a></li> <li>• <a href="#">Technical transformation to promote the energy transition in Panama</a></li> <li>• <a href="#">Morocco’s Institute of Renewable Energy and Energy Efficiency Training Jobs</a></li> <li>• <a href="#">Philippines’ Green Jobs Act of 2016</a></li> <li>• <a href="#">Austria’s Environmental Foundation</a></li> <li>• <a href="#">Barbados National Energy Policy 2017-2037</a></li> <li>• <a href="#">US DOE lithium-battery workforce initiative</a></li> <li>• <a href="#">Spain’s Empleaverde Program</a></li> <li>• <a href="#">Canada’s Building Regional Adaptation Capacity and Expertise Program</a></li> </ul>
Capacity building and knowledge exchange with other countries	<ul style="list-style-type: none"> <li>• <a href="#">Energy Academy in Germany and Jordan</a></li> <li>• <a href="#">Vocational training in the sector of renewable energies and energy efficiency in Côte d’Ivoire</a></li> </ul>
Targeted local skills training	<ul style="list-style-type: none"> <li>• <a href="#">Barcelona Energy Advice Points</a></li> </ul>

# Skills Training for Displaced Workers

Policy & Programs Promising Practices	Examples
Detailed workforce mapping and skills	<ul style="list-style-type: none"> <li>• <a href="#">iForest local skills assessment of coal sector in India</a></li> <li>• <a href="#">South Africa Sector Jobs Resilience Plans</a></li> </ul>
Government-company-workforce collaboration	<ul style="list-style-type: none"> <li>• <a href="#">Spain's Just Transition Strategy</a></li> </ul>
Economic revitalisation/infrastructure rehabilitation	<ul style="list-style-type: none"> <li>• <a href="#">US POWER initiative</a></li> <li>• <a href="#">Greece's just transition strategy for lignite workers</a></li> </ul>
Targeted retraining and reskilling programmes for coal sector workers in clean energy sectors	<ul style="list-style-type: none"> <li>• <a href="#">EU RES-SKILL project</a></li> <li>• <a href="#">Romanian Wind Energy Association training schools in coal regions</a></li> <li>• <a href="#">China's coal and steel capacity cuts and worker re-employment</a></li> <li>• <a href="#">Canada's Coal Initiative and the Canada Coal Transition Initiative Infrastructure Fund</a></li> </ul>
Workforce mapping and skills matching	<ul style="list-style-type: none"> <li>• UK <a href="#">Green Jobs Taskforce</a> and <a href="#">North Sea Transition Deal</a></li> </ul>
Reskilling and upskilling programmes for jobs in new sectors	<ul style="list-style-type: none"> <li>• <a href="#">French fund to retrain foundry workers in the auto sector</a></li> <li>• <a href="#">US hydrogen workforce development programmes</a></li> <li>• <a href="#">Spain auto sector transition plan</a></li> </ul>
Assessments of future skills needs against current ones	<ul style="list-style-type: none"> <li>• <a href="#">BP's strategy for a just energy transition</a></li> </ul>
Upskilling or reskilling programmes for existing workforce	<ul style="list-style-type: none"> <li>• <a href="#">Volkswagen electro mobility training programmes</a></li> <li>• <a href="#">Brunel hydrogen course to retrain oil and gas workers</a></li> </ul>

## Cross Sector Partnerships

Policy & Programs Promising Practices	Examples
Partnerships	<ul style="list-style-type: none"> <li>• <a href="#">Australia’s renewable energy training tower</a></li> <li>• <a href="#">European Master in Renewable Energy</a></li> <li>• <a href="#">US National Clean Energy Workforce Alliance</a></li> <li>• <a href="#">US DOE Better Buildings Workforce Accelerator</a></li> </ul>

## Targeted Programmes for Inclusiveness

Policy & Programs Promising Practices	Examples
Programmes targeted at women	<ul style="list-style-type: none"> <li>• <a href="#">Chile’s “Energia+Mujer” programme</a></li> <li>• <a href="#">WePOWER Network in South Asia</a></li> <li>• <a href="#">Nepal’s Girls4rurals initiative</a></li> <li>• <a href="#">Growing our Clean Energy Workforce initiative in Victoria, Australia</a></li> </ul>
Programmes targeted at marginalised groups	<ul style="list-style-type: none"> <li>• <a href="#">Brazil’s RevoluSolar project</a></li> <li>• <a href="#">Canada’s Clean Energy for Rural and Remote Communities programme</a></li> <li>• <a href="#">Canada’s Energy advisor recruitment, training and mentorship campaign</a></li> </ul>
Programmes targeted at youth	<ul style="list-style-type: none"> <li>• <a href="#">Student Energy Solutions Movement</a></li> <li>• <a href="#">RES4Africa Micro-Grid Academy</a></li> <li>• <a href="#">Cooperative Training at Coal Sites in North Rhine Westphalia</a></li> <li>• <a href="#">Canada’s Science and Technology Internship Program</a></li> </ul>

## Governmental Clean Energy Economy Transitions Policies

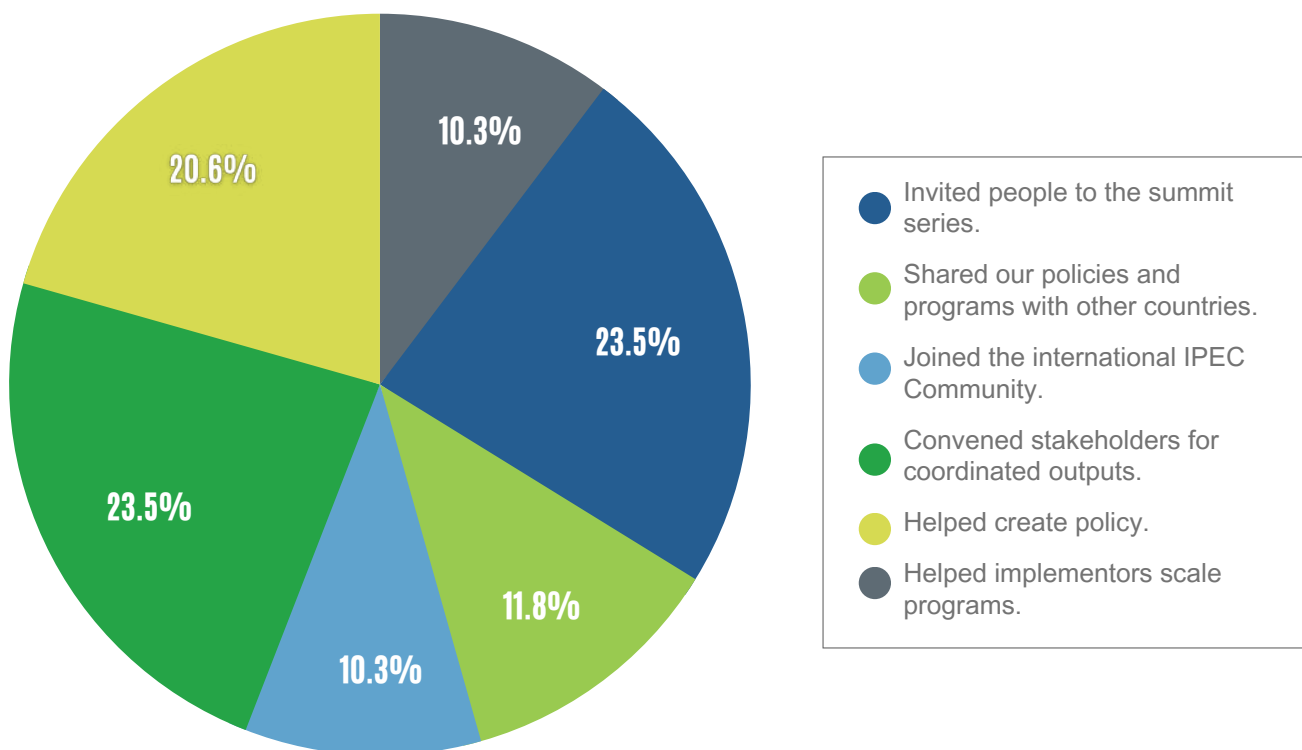
Policy & Programs Promising Practices	Examples
Green Economy Policies	<ul style="list-style-type: none"> <li>• <a href="#">Nationally Determined Contributions reports for Climate Change</a> - from multiple countries</li> <li>• <a href="#">United States</a> policies</li> <li>• <a href="#">State of New York (US) Climate Act</a></li> <li>• <a href="#">Canada's Emissions Reduction Plan</a></li> <li>• <a href="#">Canada's Sustainable Jobs Plan</a></li> </ul>
Reskilling and upskilling programmes for jobs in new sectors	<ul style="list-style-type: none"> <li>• <a href="#">French fund to retrain foundry workers in the auto sector</a></li> <li>• <a href="#">US hydrogen workforce development programmes</a></li> <li>• <a href="#">Spain auto sector transition plan</a></li> <li>• <a href="#">Canada's Sectoral Workforce Solutions Program and Community Workforce Development Program</a></li> </ul>

## Key Resources

Curated resources on both clean energy workforce development and on creating a clean energy and inclusive economy are [available here](#) and in the Annex of this report.

## Conclusion

The participants from the Integrated Policymaking and Empowering Communications for the Clean Energy Economy and Workforce (IPEC) project have already produced the following results.



IPEC will continue to support efforts globally to meet our clean energy workforce needs and our clean energy economy transitions' targets. Check the IPEC website for updates. Readers and participants are encouraged to collaborate across countries, areas of governments and sectors of society.

Through utilisation of the opportunities and resources in this toolkit, countries and organisations will be able to better create coordinated policies and programs for clean energy workforce development and an inclusive economy.

# Annex: Skills Development and Just Transitions Resources

## CLEAN ENERGY WORKFORCE DEVELOPMENT

- [IPEC Solutions Summits recordings and slides](#)
- IEA - International Energy Agency
  - [IEA's Skills Development and Inclusivity for Clean Energy Transitions](#)
- ILO - International Labor Organisation
  - [Guidelines for a Just Transition Towards Environmentally Sustainable Economies and Societies for All](#): provides a policy framework and specific recommendations to ensure that energy transition policies are socially inclusive and support decent work.
  - [User's Manual for the ILO Guidelines \(c. 2021\)](#).
  - Skills for a greener future (global knowledge products and tools) from ILO staff:
    - [ILO Global Report - Skills for a greener future: a global view](#)
    - [Skills for a Greener Future: Background Country Studies](#)
    - [Skills for a Greener Future: Key Findings](#)
    - [Skills for a Greener Future: Infographic](#)
    - [Policy Brief: Challenges and enabling factors to achieve a just transition](#)
    - [Anticipating skill needs for green jobs: A practical guide](#)
    - [Anticipating skill needs for the low carbon economy? Difficult, but not impossible](#)
  - Assessment tool:
    - [Greening TVET tool](#). Parts also useful for universities - The tool provides “how-to” guidance on designing competency standards and curricula for greener jobs, adapting training delivery and assessments to support greener learning, adapting practices to maintain a greener campus, capacitating teachers and trainers, and sensitizing enterprises.
  - [General skills and training including lifelong learning programs/resources](#)
- European Commission
  - European Commission, Directorate-General for Employment, Social Affairs and Inclusion, [Vocational education and training and the green transition – A compendium of inspiring practices](#), Publications Office of the European Union, 2023
  - [New Taxonomy of Skills for the Green Transition](#): The European Commission has published a taxonomy (classification system) of skills for the green transition in European Skills, Competences, Qualifications and Occupations (ESCO). It includes 381 skills, 185 knowledge concepts and 5 transversal skills considered most relevant



- for a greener labour market. All the skills and knowledge concepts are freely available in different formats and in 27 languages. More information about this work can be found on the [ESCO website](#). A report listing all the green concepts can be [downloaded here](#).
- [Green Deal Industrial Plan](#) The third pillar of the plan (see section 2.3 on page 14) focuses on skills via a ‘Pact for Skills’ seeking to create large-scale European public-private multi-stakeholder partnerships, where major players in industrial ecosystems and value or supply chains (including associations and relevant public authorities) commit to cooperate and invest to provide up-/re-skilling opportunities for employees in the whole industrial ecosystem, including SMEs. “EU Commission will propose to establish Net-Zero Industry Academies to roll out up-skilling and reskilling programmes in strategic industries. It will also consider how to combine a ‘Skills-first’ approach, recognising actual skills, with existing approaches based on qualifications, and how to facilitate access of third country nationals to EU labour markets in priority sectors, as well as measures to foster and align public and private funding for skills development”
- IRENA - International Renewable Energy Agency
- Free upcoming curricula and more from IRENA’s new Energy Transition Education Network - [apply here to join](#)
- [Entrepreneurship Support Facility](#)
- Launching a new youth accelerator programme in the coming months. Email for more information: [selsayed@irena.org](mailto:selsayed@irena.org)
- [A Just Inclusive Transition Requires Workforce Readiness and Diversity](#)
- [Renewable Energy and Jobs Annual Review](#)
- Global wind industry [standards for workforce education](#)
- SolarPower Europe’s International [SolarWorks Platform](#) - Matches companies hiring with potential employees, also describes skills and educational opportunities
- [Guidance Document on Education for Green Jobs](#)
- [Country Sharing Policies/Programs Form](#)
- Empowering People Initiative Co-lead Countries’ Select Aggregated Examples - See column A for areas of focus.
- [India’s Skill Council for Green Jobs](#)
- Toolkits on how to: convene a coalition to create energy policies, build community resilience and prepare the workforce when you are not a government entity.
- [Convene a coalition to create energy policies](#)
- [Build community resilience and prepare the workforce](#)
- While these toolkits were written a few years ago, the principles and strategies are very useful for today.

## CLEAN ENERGY AND INCLUSIVE ECONOMY

- PAGE (Partnership for Action on Green Economy)
  - [Uniting the UN system: The GREEN team](#) - “PAGE, in close coordination with the United Nations Economist Network (UNEN), established the Green Transformation Economic Advisory Mechanism (Green TEAM) in 2021 to provide deeper support on economics to partner countries. The Green TEAM advises and informs PAGE country and global work on green economic transformation...
  - Countries join PAGE through a criteria-based selection process, which has become a competitive process. Country support is time-bound and results-oriented and subject to commitments of interested governments and stakeholders. PAGE helps countries, through integrated technical advice, analysis and capacity building, to embark on a whole-economy and whole-society transition to an inclusive green economy. Find out more about [PAGE core offer – tool & services](#) and [strategy](#).
  - [PAGE annual report](#): “...green jobs and circular economy being prevailing areas of action across countries.”
  - [Green Economy Progress Measurement Framework](#) - PAGE has released a key tool for policymakers, analysts and other stakeholders to gain understanding on how green economy is progressing in their respective country. It helps countries to evaluate their overall progress towards an Inclusive Green Economy and to enable a cross-country comparison of progress.
  - The Green Economy Toolkit for Policymakers provides countries with practical guidance on how to formulate and assess policies, measure progress and model future effects of the transition. The toolkit consists of three publications:
    - [Guidance manual for green economy policy assessment](#)
    - [Guidance manual for green economy indicators](#)
    - [Using models for green economy policymaking](#)
- [CEM's Clean Energy Solutions Center](#) - The Clean Energy Solutions Center (the Solutions Center) helps governments design and adopt policies and programs that support the deployment of transformational low-carbon technologies... offers no-cost clean energy policy assistance... to help countries tailor solutions to their needs and foster international collaboration on policy innovations. The Solutions Center also serves as a knowledge portal for online clean energy resources—including policy best practices, data, and analysis tools... in partnership with more than 35 leading international and regional clean energy organisations. The Center is soon creating a section on workforce development policies as a result of this project.

- [European Pillar of Social Rights Action Plan](#) - See the visual description of the [components of social rights](#) at the top of the page
- IEA (International Energy Agency)
  - [Credible Pathways to 1.5 Degrees C - Four Pillars for Action](#)
  - [Energy Efficiency Policy Toolkit](#)
  - [Our Inclusive Energy Future report](#) and the [12 recommendations and policy examples for each one](#) - “The Global Commission on People-Centred Clean Energy Transitions... recognises that local circumstances and clean energy pathways will differ, and therefore these recommendations may be applied in different ways. The Commission intends for these recommendations to influence the clean energy policies and programmes of governments, funders, investors and international organisations globally in order to maximise their benefits to people and ensure the overall success of clean energy transitions on the path to net zero.”
- Mission Innovation: from ICLEI (local governments) and others
  - [Climate Innovation Human Centered Solution Framework](#)
  - See [vision document](#) for funding with human needs in mind.
- ACEEE American Council for an Energy Efficiency Economy - [Energy equity recommendations for policymakers, utilities and regulators](#)
- IRENA - International Renewable Energy Agency
  - [World Energy Transitions Outlook 2022: 1.5 degree C Pathway](#)
  - See other [policy related reports](#) for the Clean Energy Transition
  - [Global Landscape of Renewable Energy Finance](#)
- ICLEI Local Governments for Sustainability (ICLEI)
  - [An opportunity from ICLEI - Local Governments for Sustainability](#) to increase the rate of implementing solutions by working directly with cities and higher education experts
  - [Clean energy policies related to regional and cities levels, including financing](#)
- [International Trade Union Confederation Just Transition Center](#)



 [www.cleanenergyministerial.org/initiatives-campaigns/empowering-people-initiative](http://www.cleanenergyministerial.org/initiatives-campaigns/empowering-people-initiative)

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